



SQL Anywhere[®] Studio Help

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Message Format Libraries, SAFE, SAFE/PRO, SDF, Secure SQL Server, Secure SQL Toolset, Security Guardian, SKILLS, smart.partners, smart.parts, smart.script, SQL Advantage, SQL Anywhere, SQL Anywhere Studio, SQL Code Checker, SQL Debug, SQL Edit, SQL Edit/TPU, SQL Everywhere, SQL Modeler, SQL Remote, SQL Server, SQL Server Manager, SQL Server SNMP SubAgent, SQL Server/CFT, SQL Server/DBM, SQL SMART, SQL Station, SQL Toolset, SQLJ, Stage III Engineering, Startup.Com, STEP, SupportNow, Sybase Central, Sybase Client/Server Interfaces, Sybase Development Framework, Sybase Financial Server, Sybase Gateways, Sybase Learning Connection, Sybase MPP, Sybase SQL Desktop, Sybase SQL Lifecycle, Sybase SQL Workgroup, Sybase Synergy Program, Sybase User Workbench, Sybase Virtual Server Architecture, SybaseWare, Syber Financial, SyberAssist, SybMD, SyBooks, System 10, System 11, System XI (logo), SystemTools, Tabular Data Stream, The Enterprise Client/Server Company, The Extensible Software Platform, The Future Is Wide Open, The Learning Connection, The Model For Client/Server Solutions, The Online Information Center, The Power of One, TotalFix, TradeForce, Transact-SQL, Translation Toolkit, Turning Imagination Into Reality, UltraLite, UltraLite.NET, UNIBOM, Unilib, Uninull, Unisep, Unistring, URK Runtime Kit for UniCode, Versacore, Viewer, VisualWriter, VQL, Warehouse Control Center, Warehouse Studio, Warehouse WORKS, WarehouseArchitect, Watcom, Watcom SQL, Watcom SQL Server, Web Deployment Kit, Web.PB, Web.SQL, WebSights, WebViewer, WorkGroup SQL Server, XA-Library, XA-Server, and XP Server are trademarks of Sybase, Inc. or its subsidiaries.

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Contents

About This Manual	vii
SQL Anywhere Studio documentation	viii
Documentation conventions	xi
The Adaptive Server Anywhere sample database	xiii
Finding out more and providing feedback	xiv
1 Connect Dialog Help	1
Connect dialog: Identification tab	2
Connect dialog: Database tab	5
Connect dialog: Advanced tab	8
2 ODBC Configuration Dialog Help	11
Using the ODBC Configuration dialog	12
ODBC Configuration dialog: DBMLSync tab	13
ODBC Configuration dialog: ODBC tab	15
ODBC Configuration dialog: Login tab	18
ODBC Configuration dialog: Database tab	20
ODBC Configuration dialog: Network tab	22
ODBC Configuration dialog: Advanced tab	25
Certicom Encryption Options dialog	26
3 Adaptive Server Anywhere Help	27
Introduction to property sheets	28
Introduction to dialog boxes	121
Debugger help	150
Index Consultant	152
4 Interactive SQL Help	153
About Interactive SQL	154
Introduction to Interactive SQL dialog boxes	156
Interactive SQL wizards	170
5 MobiLink Help	173
Introduction	174
MobiLink property sheets	175
MobiLink dialog boxes	192
MobiLink wizards	195

6	MobiLink Monitor Help	205
	Connect to MobiLink Server dialog	206
	Edit Watch dialog	209
	Go To dialog	210
	New Watch dialog	211
	Export to Database dialog	212
	Options dialog	214
	Session property sheet	219
	Synchronization property sheet	220
	Watch Manager dialog	224
7	Query Editor Help	225
	Introducing the Query Editor	226
	Tables tab	228
	Joins tab	230
	Columns tab	232
	INTO tab	234
	WHERE tab	235
	GROUP BY tab	236
	HAVING tab	238
	ORDER BY tab	239
	Expression Editor	240
	Results pane	242
	SQL pane	243
8	Adaptive Server Anywhere Console Utility Help	245
	Using the Adaptive Server Anywhere Console utility	246
	Options dialog	247
9	SQL Language Links	251
	SQL syntax help	252
10	UltraLite Schema Painter Help	261
	UltraLite Schema Painter Options dialog	263
	New UltraLite Schema dialog	264
	Save Schema to PDB file dialog	265
	Schema Deployment dialog	266
	Database Schema property sheet	267
	Database Property Editor dialog	268
	New Table dialog	269
	New Column property sheet	270
	Set Primary Key dialog	271
	Save Certificate dialog	272
	Set Index dialog	273

Create Foreign Key dialog	274
Map Primary Column dialog	275
Foreign Key property sheet	276
Table property sheet	277
Publication dialog	278
MobiLink Synchronization property sheet	279
Generate Consolidated Database and MobiLink Scripts dialog	284
Preview Scripts and Consolidated Database Table Definitions dialog	285
MobiLink Table Settings dialog	286
Create UltraLite Database dialog	287
11 UltraLite Interactive SQL Help	289
Connection Dialog	290
Old Database Format Dialog	291
Command History Dialog	292
Lookup Table Dialog	293
Options Dialog	294
Index	295



About This Manual

Subject	This manual provides context-sensitive help for the Connect dialog, the Query Editor, the MobiLink Monitor, the Adaptive Server Anywhere Console utility, the Index Consultant, and the UltraLite Schema Painter. It also contains context-sensitive help for all the property sheets and dialog boxes that are available in Sybase Central, as well as for MobiLink wizards.
Audience	This manual is for all users of SQL Anywhere Studio.

SQL Anywhere Studio documentation

The SQL Anywhere Studio documentation

This book is part of the SQL Anywhere documentation set. This section describes the books in the documentation set and how you can use them.

The SQL Anywhere Studio documentation is available in a variety of forms: in an online form that combines all books in one large help file; as separate PDF files for each book; and as printed books that you can purchase. The documentation consists of the following books:

- ◆ **Introducing SQL Anywhere Studio** This book provides an overview of the SQL Anywhere Studio database management and synchronization technologies. It includes tutorials to introduce you to each of the pieces that make up SQL Anywhere Studio.
- ◆ **What's New in SQL Anywhere Studio** This book is for users of previous versions of the software. It lists new features in this and previous releases of the product and describes upgrade procedures.
- ◆ **Adaptive Server Anywhere Database Administration Guide** This book covers material related to running, managing, and configuring databases and database servers.
- ◆ **Adaptive Server Anywhere SQL User's Guide** This book describes how to design and create databases; how to import, export, and modify data; how to retrieve data; and how to build stored procedures and triggers.
- ◆ **Adaptive Server Anywhere SQL Reference Manual** This book provides a complete reference for the SQL language used by Adaptive Server Anywhere. It also describes the Adaptive Server Anywhere system tables and procedures.
- ◆ **Adaptive Server Anywhere Programming Guide** This book describes how to build and deploy database applications using the C, C++, and Java programming languages. Users of tools such as Visual Basic and PowerBuilder can use the programming interfaces provided by those tools. It also describes the Adaptive Server Anywhere ADO.NET data provider.
- ◆ **Adaptive Server Anywhere SNMP Extension Agent User's Guide** This book describes how to configure the Adaptive Server Anywhere SNMP Extension Agent for use with SNMP management applications to manage Adaptive Server Anywhere databases.
- ◆ **Adaptive Server Anywhere Error Messages** This book provides a complete listing of Adaptive Server Anywhere error messages together with diagnostic information.

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- ◆ **SQL Anywhere Studio Security Guide** This book provides information about security features in Adaptive Server Anywhere databases. Adaptive Server Anywhere 7.0 was awarded a TCSEC (Trusted Computer System Evaluation Criteria) C2 security rating from the U.S. Government. This book may be of interest to those who wish to run the current version of Adaptive Server Anywhere in a manner equivalent to the C2-certified environment.
 - ◆ **MobiLink Administration Guide** This book describes how to use the MobiLink data synchronization system for mobile computing, which enables sharing of data between a single Oracle, Sybase, Microsoft or IBM database and many Adaptive Server Anywhere or UltraLite databases.
 - ◆ **MobiLink Clients** This book describes how to set up and synchronize Adaptive Server Anywhere and UltraLite remote databases.
 - ◆ **MobiLink Synchronization Server-Initiated Synchronization User's Guide** This book describes MobiLink server-initiated synchronization, a feature of MobiLink that allows you to initiate synchronization from the consolidated database.
 - ◆ **MobiLink Tutorials** This book provides several tutorials that walk you through how to set up and run MobiLink applications.
 - ◆ **QAnywhere User's Guide** This manual describes MobiLink QAnywhere, a messaging platform that enables the development and deployment of messaging applications for mobile and wireless clients, as well as traditional desktop and laptop clients.
 - ◆ **iAnywhere Solutions ODBC Drivers** This book describes how to set up ODBC drivers to access consolidated databases other than Adaptive Server Anywhere from the MobiLink synchronization server and from Adaptive Server Anywhere remote data access.
 - ◆ **SQL Remote User's Guide** This book describes all aspects of the SQL Remote data replication system for mobile computing, which enables sharing of data between a single Adaptive Server Anywhere or Adaptive Server Enterprise database and many Adaptive Server Anywhere databases using an indirect link such as e-mail or file transfer.
 - ◆ **SQL Anywhere Studio Help** This book includes the context-sensitive help for Sybase Central, Interactive SQL, and other graphical tools. It is not included in the printed documentation set.
 - ◆ **UltraLite Database User's Guide** This book is intended for all UltraLite developers. It introduces the UltraLite database system and provides information common to all UltraLite programming interfaces.

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- ◆ **UltraLite Interface Guides** A separate book is provided for each UltraLite programming interface. Some of these interfaces are provided as UltraLite components for rapid application development, and others are provided as static interfaces for C, C++, and Java development.

In addition to this documentation set, PowerDesigner and InfoMaker include their own online documentation.

Documentation formats SQL Anywhere Studio provides documentation in the following formats:

- ◆ **Online documentation** The online documentation contains the complete SQL Anywhere Studio documentation, including both the books and the context-sensitive help for SQL Anywhere tools. The online documentation is updated with each maintenance release of the product, and is the most complete and up-to-date source of documentation.

To access the online documentation on Windows operating systems, choose Start ► Programs ► SQL Anywhere 9 ► Online Books. You can navigate the online documentation using the HTML Help table of contents, index, and search facility in the left pane, as well as using the links and menus in the right pane.

To access the online documentation on UNIX operating systems, see the HTML documentation under your SQL Anywhere installation.

- ◆ **PDF books** The SQL Anywhere books are provided as a set of PDF files, viewable with Adobe Acrobat Reader.

The PDF books are accessible from the online books, or from the Windows Start menu.

- ◆ **Printed books** The complete set of books is available from Sybase sales or from eShop, the Sybase online store at <http://eshop.sybase.com/eshop/documentation>.

Documentation conventions

This section lists the typographic and graphical conventions used in this documentation.

Syntax conventions

The following conventions are used in the SQL syntax descriptions:

- ◆ **Keywords** All SQL keywords appear in upper case, like the words ALTER TABLE in the following example:

ALTER TABLE [*owner*.]*table-name*

- ◆ **Placeholders** Items that must be replaced with appropriate identifiers or expressions are shown like the words *owner* and *table-name* in the following example:

ALTER TABLE [*owner*.]*table-name*

- ◆ **Repeating items** Lists of repeating items are shown with an element of the list followed by an ellipsis (three dots), like *column-constraint* in the following example:

ADD *column-definition* [*column-constraint*, . . .]

One or more list elements are allowed. In this example, if more than one is specified, they must be separated by commas.

- ◆ **Optional portions** Optional portions of a statement are enclosed by square brackets.

RELEASE SAVEPOINT [*savepoint-name*]

These square brackets indicate that the *savepoint-name* is optional. The square brackets should not be typed.

- ◆ **Options** When none or only one of a list of items can be chosen, vertical bars separate the items and the list is enclosed in square brackets.

[**ASC** | **DESC**]

For example, you can choose one of ASC, DESC, or neither. The square brackets should not be typed.

- ◆ **Alternatives** When precisely one of the options must be chosen, the alternatives are enclosed in curly braces and a bar is used to separate the options.

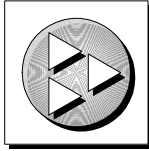
[**QUOTES** { **ON** | **OFF** }]

If the QUOTES option is used, one of ON or OFF must be provided. The brackets and braces should not be typed.

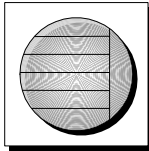
Graphic icons

The following icons are used in this documentation.

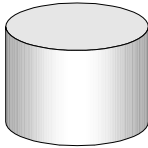
- ◆ A client application.



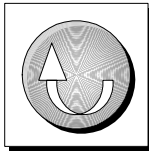
- ◆ A database server, such as Sybase Adaptive Server Anywhere.



- ◆ A database. In some high-level diagrams, the icon may be used to represent both the database and the database server that manages it.



- ◆ Replication or synchronization middleware. These assist in sharing data among databases. Examples are the MobiLink Synchronization Server and the SQL Remote Message Agent.



- ◆ A programming interface.



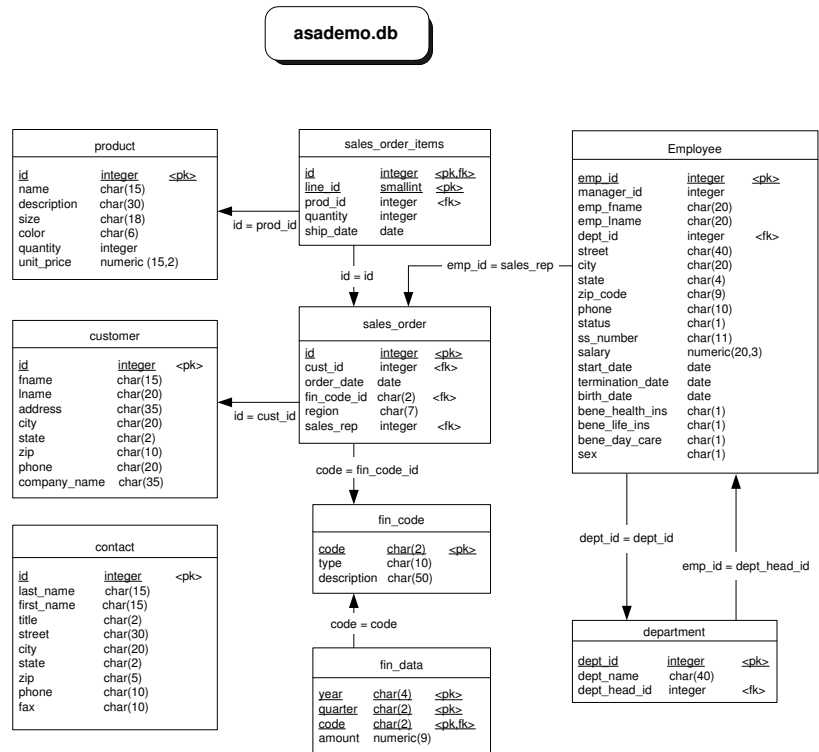
The Adaptive Server Anywhere sample database

Many of the examples throughout the documentation use the Adaptive Server Anywhere sample database.

The sample database is held in a file named *asademo.db*, and is located in your SQL Anywhere directory.

The sample database represents a small company. It contains internal information about the company (employees, departments, and finances) as well as product information and sales information (sales orders, customers, and contacts). All information in the database is fictional.

The following figure shows the tables in the sample database and how they relate to each other.



Finding out more and providing feedback

We would like to receive your opinions, suggestions, and feedback on this documentation.

You can provide feedback on this documentation and on the software through newsgroups set up to discuss SQL Anywhere technologies. These newsgroups can be found on the *forums.sybase.com* news server.

The newsgroups include the following:

- ◆ [sybase.public.sqlanywhere.general](#).
- ◆ [sybase.public.sqlanywhere.linux](#).
- ◆ [sybase.public.sqlanywhere.mobilink](#).
- ◆ [sybase.public.sqlanywhere.product_futures_discussion](#).
- ◆ [sybase.public.sqlanywhere.replication](#).
- ◆ [sybase.public.sqlanywhere.ultralite](#).
- ◆ [ianywhere.public.sqlanywhere.qanywhere](#)

Newsgroup disclaimer

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iAnywhere Solutions Technical Advisors as well as other staff assist on the newsgroup service when they have time available. They offer their help on a volunteer basis and may not be available on a regular basis to provide solutions and information. Their ability to help is based on their workload.

You can e-mail comments and suggestions to the SQL Anywhere documentation team at iasdoc@ianywhere.com. Although we do not undertake to reply to e-mails at that address, you can be sure we will read your suggestions with interest.

CHAPTER 1

Connect Dialog Help

About this chapter

This chapter describes the Connect dialog used by Sybase Central, Interactive SQL, and the Adaptive Server Anywhere Console utility (dbconsole).

The settings in this dialog are preserved for the current Sybase Central, Interactive SQL, or Adaptive Server Anywhere Console session only. You can preserve connection settings in Sybase Central using Connection Profiles.

Contents

Topic:	page
Connect dialog: Identification tab	2
Connect dialog: Database tab	5
Connect dialog: Advanced tab	8

Connect dialog: Identification tab

The Identification tab of the Connect dialog has the following components:

User ID Type a user ID for the connection. The default user ID for Adaptive Server Anywhere databases is **DBA**. The user ID you supply must have permissions on a database in order to connect.

Password Type a password for the connection. The default password for Adaptive Server Anywhere databases is **SQL** when you connect with the default user, **DBA**. The password must be the correct password for the user ID you supply.

Extended characters used in passwords are case-sensitive, regardless of the database sensitivity setting.

☞ For more information about passwords and case sensitivity, see “[Initialization utility options](#)” [*ASA Database Administration Guide*, page 532].

Use integrated login Select this option to connect to the database using an integrated login on Windows.

If you select this option, your database user ID and password do not need to be specified: instead, your Windows user ID and password are supplied to the Adaptive Server Anywhere integrated login mechanism.

To use integrated logins, you must have been granted integrated login permission on the database and the database server must be set up to accept integrated logins. As well, you must connect using the iAnywhere JDBC driver (the iAnywhere JDBC driver is selected by default when you choose the Use Integrated Login option).

☞ For more information about integrated logins, see “[Using integrated logins](#)” [*ASA Database Administration Guide*, page 74].

None Select this option if you are not using an ODBC data source for the connection.

ODBC Data Source name Select this option to choose a data source (a stored set of connection parameters) for connecting to your database. This field is equivalent to the DSN connection parameter, which references a data source in the registry. You can view a list of data sources by clicking Browse.

You can also select a recently used “[ODBC data source](#)” [*Introducing SQL Anywhere Studio*, page 354] from the dropdown list.

☞ For information about the DSN connection parameter, see “[DataSourceName connection parameter \[DSN\]](#)” [*ASA Database Administration Guide*, page 190].

- ◆ **Open the ODBC Data Source Administrator button** Click the Open the ODBC Data Source Administrator button to open the ODBC Administrator dialog where you can select an ODBC data source from the list of available data sources. If you want to select a data source, select it from the list and then click OK.

You may also choose to create a new data source or configure an existing data source to use for the connection.

☞ For information about using the ODBC Administrator dialog, see “Working with ODBC data sources” [*ASA Database Administration Guide*, page 53].

Tip

ODBC data sources allow you to store connection information. If you have connection information stored in an ODBC data source, do not repeat this information in the Connect dialog. For example, if the ODBC data source already contains a user ID, then do not supply the user ID in the User ID field of the Connect dialog.

Note

Any information you enter in the Connect dialog, such as the user ID or database name, takes precedence over the parameters stored in an ODBC data source or an ODBC data source file.

ODBC Data Source file Select this option to choose a data source file for the connection. You can search for the file by clicking Browse. The ODBC data source file is often used for UNIX systems.

You can also select a recently used ODBC Data Source File from the dropdown list.

File data sources hold the same information as ODBC data sources stored in the registry.

Troubleshooting

If you use an ODBC data source and fail to connect, test your data source.

To test an ODBC data source, click the Open ODBC Administrator Button on the Identification tab of the Connect dialog, or from the Start menu, choose Programs ► SQL Anywhere 9 ► Adaptive Server Anywhere ► ODBC Administrator.

On the User DSN tab of the ODBC Data Source Administrator dialog, select an ODBC data source from the list and click Configure. This opens the ODBC Configuration for Adaptive Server Anywhere dialog.

On the ODBC tab of the ODBC Configuration for Adaptive Server Anywhere dialog, click Test Connection. A dialog appears telling you whether or not the connection succeeds.

☞ For more information about ODBC data sources, see [“Working with ODBC data sources”](#) [*ASA Database Administration Guide*, page 53].

See also

- ◆ [“Simple connection examples”](#) [*ASA Database Administration Guide*, page 45]
- ◆ [“Troubleshooting connections”](#) [*ASA Database Administration Guide*, page 66]
- ◆ [“Troubleshooting server startup”](#) [*ASA Database Administration Guide*, page 34]
- ◆ [“Troubleshooting network communications”](#) [*ASA Database Administration Guide*, page 98]

Connect dialog: Database tab

The Database tab of the Connect dialog has the following components:

Server name Type the name of the Adaptive Server Anywhere [personal server](#) or [network server](#). For example, **asademo**. You need to supply a server name if you want to connect to a network server.

Do not enter a Server Name if you want to connect to the default local personal server or if you want to start a [database server](#) from a database file on your local machine. If you do not have a default personal server and you omit the server name, the connection fails.


You can select a recently-used server name from the dropdown list or click Find to search for a server. When you click Find, a dialog appears listing running local personal servers and network servers. To choose a server from this dialog, select a server from the list and then click OK. The server name appears on the Database tab in the Server Name field.

For more information about the server name, see [“Naming the server and the databases”](#) [*ASA Database Administration Guide*, page 10].

Start line The start line is a command to start a personal database server or a network server on your machine. Enter a start line only if you want to connect to a local database server that is not currently running and if you want to set your own start parameters. You must enter the full path of the server, for example to start the personal database server enter, **c:\Program Files\Sybase\SQL Anywhere 9\win32\dbeng9.exe**. Alternatively, you can select a recently used start line from the dropdown list.

You can also include options in the Start Line field. The start line and options are used when you want to:

- ◆ Employ any advanced server features.
- ◆ Control protocol options.
- ◆ Provide diagnostic or troubleshooting messages.
- ◆ Set permissions.
- ◆ Set database parameters (including encryption).

 For more information about options you can specify in the Start Line field, see [“Some common options”](#) [*ASA Database Administration Guide*, page 10] and [“The database server”](#) [*ASA Database Administration Guide*, page 116].

Search network for database servers Select this option if you want to connect to a server that is running on a machine other than your local machine. You should clear this option if you want to connect to a database server on your local machine.

Database name Each database running on a server is identified by a [database name](#). Type the name of the database you are connecting to.

You need a database name only if there is more than one database running on the server. If the database is not already running on the server, you should specify the database file instead.

You can also select a recently-used database name from the dropdown list or click Browse to locate the database file.

☞ For more information about the database name, see “[Naming the server and the databases](#)” [*ASA Database Administration Guide*, page 10] and “[DatabaseName connection parameter \[DBN\]](#)” [*ASA Database Administration Guide*, page 188].

Database file Specify the database file when the database you want to connect to is not currently running on a server. It is recommended that you type the full path and name of the database file, for example, `C:\sample.db`. Otherwise, the path of the file is relative to the working directory of the server.

You can also select a recently-used [database file](#) from the dropdown list or click Browse to search for the database file.

Note

If you specify both the database name and database file when trying to connect to a database that is already running, the database file is ignored.

◆ **Encryption key** If the database file is encrypted, you must supply a key to the database server every time the database server starts the database.

☞ For more information about encryption keys, see “[DatabaseKey connection parameter \[DBKEY\]](#)” [*ASA Database Administration Guide*, page 187].

The Encryption key field is enabled only after you fill in the Database File field. You can also supply encryption options in the Start Line field.

Start database automatically Select this option to start the database specified in the Database File field before you connect to it.

You should clear the Start Database Automatically option if you want to ensure that you connect only to a running database.

Stop database after last disconnect Select this option to automatically shut down the database after the last user disconnects.

See also

- ◆ “Simple connection examples” [*ASA Database Administration Guide*, page 45]
- ◆ “Troubleshooting connections” [*ASA Database Administration Guide*, page 66]
- ◆ “Troubleshooting server startup” [*ASA Database Administration Guide*, page 34]
- ◆ “Troubleshooting network communications” [*ASA Database Administration Guide*, page 98]

Connect dialog: Advanced tab

The Advanced tab of the Connect dialog has the following components:

Connection name This field only appears when you open the Connect dialog from Interactive SQL. Type a name to identify the connection. If specified, the name appears in the title bar in Interactive SQL.

Enter connection parameters, one per line, in the form “name=value”

Type any additional connection parameters in this field, entering one connection parameter per line. The following connection parameters log debugging information regarding connections:

```
DEBUG=YES
LOG=connection.log
```

When you enter the connection parameters one per line, a semicolon is not required between the parameters.

Tip

You can specify a network protocol as a CommLinks connection parameter on this tab, but the protocols available depend on the driver you select. For jConnect, the TCP/IP protocol is used automatically.

Parameters set in this field take precedence over parameters set throughout the rest of this dialog. For example, if you enter the user ID DBA on the Identification tab, and set the connection parameter “uid=bsmith” in this field, a connection with the user ID bsmith is attempted.

☞ For more information about connection parameters, see [“Connection parameters” \[ASA Database Administration Guide, page 176\]](#) and [“How connection parameters work” \[ASA Database Administration Guide, page 40\]](#).

Select a JDBC driver Lets you choose the type of driver you want to use for the connection. All requests and commands you make when working with the database go through this driver. You have the following choices:

- ◆ **iAnywhere JDBC driver** Select this option to use the iAnywhere JDBC driver to connect using an ODBC driver. The iAnywhere JDBC driver is, in many cases, the preferred driver. It is the default driver for Interactive SQL and Sybase Central.

When you choose the iAnywhere JDBC driver, and you supply an ODBC data source, only the items on the Identification tab are used to establish a connection.

☞ For more information about the iAnywhere JDBC driver, see [“Using the iAnywhere JDBC driver” \[ASA Programming Guide, page 115\]](#) and

“Choosing a JDBC driver” [*ASA Programming Guide*, page 104].

☞ For more information about selecting a driver, see “Specifying a driver for your connection” [*ASA Database Administration Guide*, page 43].

- ◆ **jConnect 5** Select this option to use a JDBC driver called jConnect for JDBC (a Sybase product). This driver is platform-independent and it supports all connection features, including the use of ODBC data sources.

See also

- ◆ “Simple connection examples” [*ASA Database Administration Guide*, page 45]
- ◆ “Troubleshooting connections” [*ASA Database Administration Guide*, page 66]
- ◆ “Troubleshooting server startup” [*ASA Database Administration Guide*, page 34]
- ◆ “Troubleshooting network communications” [*ASA Database Administration Guide*, page 98]

CHAPTER 2

ODBC Configuration Dialog Help

About this chapter

This chapter provides a description of the ODBC Configuration and Certicom Encryption Options dialogs that are provided with Adaptive Server Anywhere.

Contents

Topic:	page
Using the ODBC Configuration dialog	12
ODBC Configuration dialog: DBMLSync tab	13
ODBC Configuration dialog: ODBC tab	15
ODBC Configuration dialog: Login tab	18
ODBC Configuration dialog: Database tab	20
ODBC Configuration dialog: Network tab	22
ODBC Configuration dialog: Advanced tab	25
Certicom Encryption Options dialog	26

Using the ODBC Configuration dialog

You connect to an ODBC database using an ODBC data source. The ODBC Configuration dialog allows you to save a set of Adaptive Server Anywhere connection parameters as an ODBC data source. Once you have a data source, your connection string can simply name the data source to use.

```
DSN=my data source
```

For Adaptive Server Anywhere, the use of ODBC data sources goes beyond Windows applications using the ODBC interface:

- ◆ Adaptive Server Anywhere client applications on UNIX can use ODBC data sources, as well as those on Windows operating systems.
- ◆ Adaptive Server Anywhere client applications using the OLE DB, ADO.NET, or embedded SQL interfaces can use ODBC data sources, as well as ODBC applications.
- ◆ Interactive SQL and Sybase Central can use ODBC data sources.

ODBC Configuration dialog: DBMLSync tab

This tab provides options for the *dbmlsync* Adaptive Server Anywhere client synchronization utility.

The DBMLSync tab of the ODBC Configuration dialog has the following components:

Publication Type the name of the publication that is to be synchronized.

If there is only one publication in your database, you do not need to enter anything in this field.

ML password Type the MobiLink password for user authentication. If you have not entered a password, you must enter one here. If you are being prompted for a password, this is likely the only field you need to complete.

Change password Select this option to change the MobiLink password when synchronization occurs. Unless you are changing the MobiLink password, leave the checkbox blank.

- ◆ **New** When changing the MobiLink password, type the new password. Unless you are changing the MobiLink password, leave this field blank.
- ◆ **Verify** When changing the MobiLink password, type the new password again for verification. Unless you are changing the MobiLink password, leave this field blank.

Extended option Supply extended options to customize synchronization. You can supply schedule specifications, stream compression values, and other extended options. For a list of available extended options, click the Extended Option Help button. This field is optional.

Site script Type the name of the script to be executed after synchronization. This field is optional. You can click Browse to locate the site script.

Retry on remote progress If the consolidated and client databases have different information about the last synchronization, you can select this option to retry the upload operation.

By default, uploads continue from the offset recorded by the consolidated database. If you select Retry on Remote Progress, the upload continues from the offset recorded in the client database as long as the offset recorded in the consolidated database is ahead of that at the client database.

If, in addition, you select Remote is Ahead, the upload is retried starting from the offset recorded in the client database even if the offset recorded in the client database is ahead of that recorded in the consolidated database.

This option should be used with care. If the offset mismatch is the result of a restore of the consolidated database, changes that happened in the client database in the gap between the two recorded offsets are lost. The Remote is Ahead option may be useful when the client database transaction log has been truncated after the last successful synchronization.

- ◆ **Remote is behind** Select Remote is Behind to retry the upload from the consolidated database's offset as long as the consolidated database's offset is ahead of that at the client database. This option is only enabled when you select Retry on Remote Progress. This is the default setting.
- ◆ **Remote is ahead** Select Remote is Ahead to retry the upload from the offset recorded in the client database even if the client's offset is ahead of that recorded at the consolidated database. This option is only enabled when you select Retry on Remote Progress. *This option should be used with care.*

This option may be useful when the client database transaction log has been truncated and the synchronization definition has been recreated after the last successful synchronization or when you do not want to upload changes between the last successful synchronization and the recreation.

Verbose operation Select this option to record debugging and other diagnostic information in a log file. This field is optional.

Drop conflicting connections Synchronization requires access to all rows on the tables to be synchronized. Select this option to force connections with locks on these tables to be dropped. This field is optional.

Cmdline help Each of the options on the DBMLSync tab has an equivalent command-line option. Click Cmdline Help to view a list of switches and their description.

Extended option help Click Extended Option Help to view a list of the names, default values, and descriptions of available extended options. You can also supply these options in the Extended Option field to customize synchronization.

ODBC Configuration dialog: ODBC tab

This tab appears only when you are creating or modifying ODBC data sources.

The ODBC tab of the ODBC Configuration dialog has the following components:


Data source name Type a name to identify this ODBC data source. You can use any descriptive name for the data source (spaces are allowed) but it is recommended that you keep the name short, as you may need to enter it in connection strings.

 For more information, see [“DataSourceName connection parameter \[DSN\]” \[ASA Database Administration Guide, page 190\]](#).

Description You can provide a description of the data source. This description may help you or your end users to identify this data source from among their list of available data sources. This is an optional field.

Isolation level Type a numerical value to specify the initial isolation level for this data source:

- ◆ **0** This is also called the read uncommitted isolation level. This is the default isolation level. It provides the maximum level of concurrency, but dirty reads, non-repeatable reads, and phantom rows may be observed in result sets.
- ◆ **1** This is also called the read committed level. This provides less concurrency than level 0, but eliminates some of the inconsistencies in result sets at level 0. Non-repeatable rows and phantom rows may occur, but dirty reads are prevented.
- ◆ **2** This is also called the repeatable read level. Phantom rows may occur. Dirty reads and non-repeatable rows are prevented.
- ◆ **3** This is also called the serializable level. This provides the least concurrency, and is the strictest isolation level. Dirty reads, non-repeatable reads, and phantom rows are prevented.

 For more information, see [“Choosing isolation levels” \[ASA SQL User’s Guide, page 116\]](#).

Microsoft applications (Keys in SQLStatistics) Select this option if you want the SQLStatistics function to return foreign keys. The ODBC specification states that SQLStatistics should not return primary and foreign keys; however, some Microsoft applications (such as Visual Basic and Access) assume that primary and foreign keys are returned by SQLStatistics.

Delphi applications Select this option if you use the Borland Delphi application development tool to create applications that produce your data source.

When this option is selected, one bookmark value is assigned to each row instead of the two that are otherwise assigned (one for fetching forwards and a different one for fetching backwards).

Delphi cannot handle multiple bookmark values for a row. If the option is cleared, scrollable cursor performance can suffer since scrolling must always take place from the beginning of the cursor to the row requested in order to get the correct bookmark value.

Suppress fetch warnings Select this option if you want to suppress warning messages that are returned from the database server on a fetch.

Versions 8.0 and later of the database server return a wider range of fetch warnings than earlier versions of the software. For applications that are deployed with an earlier version of the software, you can select this option to ensure that fetch warnings are handled properly.

Prevent driver not capable errors The Adaptive Server Anywhere ODBC driver returns a `Driver not capable` error because it does not support qualifiers. Some ODBC applications do not handle this error properly. Select this option to prevent this error code from being returned, allowing these applications to work.

Delay AutoCommit until statement close Select this option to delay the commit operation until a statement closes.

Describe Cursor Behavior Choose how often you want a cursor to be redescrbed when a procedure is executed. The default setting is If Required.

- ◆ **Never** Select this option if you know that your cursors do not have to be redescrbed. Redescrbing cursors is expensive and can decrease performance.
- ◆ **If required** When you select this option, the ODBC driver determines whether a cursor must be redescrbed. The presence of a `RESULT` clause in your procedure prevents ODBC applications from redescrbing the result set after a cursor is opened. This is the default.
- ◆ **Always** The cursor is redescrbed each time it is opened. If you use Transact-SQL procedures or procedures that return multiple result sets, you must redescrbe the cursor each time it is opened.

Translator The translator converts characters between ANSI and OEM code pages. Most databases do not require a translator because the ODBC Driver Manager automatically performs a conversion between the client's

character set and the database's character set. If your database uses an ANSI code page (the default) do not select a translator.

If you require a translator, click Select and choose the translator from the list of installed translators.

- ◆ **Select Translator** Click Select Translator to choose the ODBC translator you require from a list of installed translators.

Test Connection Tests whether the information provided results in a proper connection. In order for the test to work, a user ID and password must be specified on the Login tab.

ODBC Configuration dialog: Login tab

The Login tab of the ODBC Configuration dialog Login tab has the following components:

Use integrated login Select this option to connect using an integrated login.

If you select this option, the user ID and password do not need to be specified: instead, your operating system user ID and password are supplied to the Adaptive Server Anywhere integrated login mechanism.

To use integrated logins, users must have been granted integrated login permission and the database you are connecting to must also be set up to accept integrated logins. Only users with DBA access may administer integrated login permissions.

☞ For more information, see [“Using integrated logins”](#) [*ASA Database Administration Guide*, page 74].

Supply user ID and password Select this option if you want to specify the user ID and password for the connection.

◆ **User ID** Type a user ID for the connection. The user ID you supply must have permissions on a database in order to connect.

◆ **Password** Type a password for the connection. The password must be the correct password for the user ID you supply.

Extended characters used in passwords are case-sensitive, regardless of the database sensitivity setting.

☞ For more information about passwords and case sensitivity, see [“Initialization utility options”](#) [*ASA Database Administration Guide*, page 532].

• **Encrypt password** Select this option if you want the password to be stored in encrypted form in the profile.

This option only appears when creating ODBC data sources. It does not appear when you access this dialog using the dbmsync utility.

☞ For more information, see [“EncryptedPassword connection parameter \[ENP\]”](#) [*ASA Database Administration Guide*, page 191].

It is recommended that you do not include the password in the data source as it is a significant security risk.

Data source name This option only appears when you open this dialog using the dbmsync utility. Select this option to choose a data source (a stored set of connection parameters) for connecting to your database. This

field is equivalent to the DSN connection parameter, which references a data source in the registry. You can view a list of data sources by clicking **Browse**.

Data source file This option only appears when you open this dialog using the `dbmsync` utility. Select this option to choose a data source file for the connection. You can search for the file by clicking **Browse**. The ODBC data source file is often used for UNIX systems. You can click **Browse** to locate an ODBC data source.

ODBC Configuration dialog: Database tab

The Database tab of the ODBC Configuration dialog has the following components:

Server name Type the name of the Adaptive Server Anywhere [personal server](#) or [network server](#). For example, **asademo**. You need to supply a server name if you want to connect to a network server.

Do not enter a Server Name if you want to connect to the default local personal server or if you want to start a [database server](#) from a database file on your local machine. If you do not have a default personal server and you omit the server name, the connection fails.

☞ For more information about the server name, see “[Naming the server and the databases](#)” [*ASA Database Administration Guide*, page 10].

☞ For more information, see “[EngineName connection parameter \[ENG\]](#)” [*ASA Database Administration Guide*, page 194].

Start line The start line is a command to start a personal database server or a network server on your machine. Enter a start line only if you want to connect to a local database server that is not currently running and if you want to set your own start parameters. You must enter the full path of the server, for example to start the personal database server enter, **c:\Program Files\Sybase\SQL Anywhere 9\win32\dbeng9.exe**.

You can also include options in the Start Line field. The start line and options are used when you want to:

- ◆ Employ any advanced server features.
- ◆ Control protocol options.
- ◆ Provide diagnostic or troubleshooting messages.
- ◆ Set permissions.
- ◆ Set database parameters (including encryption).

☞ For more information about options you can specify in the Start Line field, see “[Some common options](#)” [*ASA Database Administration Guide*, page 10] and “[The database server](#)” [*ASA Database Administration Guide*, page 116].

☞ For more information, see “[StartLine connection parameter \[START\]](#)” [*ASA Database Administration Guide*, page 204].

Database name Each database running on a server is identified by a [database name](#). Type the name of the database you are connecting to.

☞ For more information about the database name, see “[Naming the server and the databases](#)” [*ASA Database Administration Guide*, page 10] and “[DatabaseName connection parameter \[DBN\]](#)” [*ASA Database Administration Guide*, page 188].

Database file Specify the database file when the database you want to connect to is not currently running on a server. It is recommended that you type the full path and name of the database file, for example, **C:\sample.db**. Otherwise, the path of the file is relative to the working directory of the server. This option is only necessary for starting a database that is not already running. You can click Browse to select the database file from the file directory.

☞ For more information, see “[DatabaseFile connection parameter \[DBF\]](#)” [*ASA Database Administration Guide*, page 185].

Encryption key If the database file is encrypted, you must supply a key to the database server every time the database server starts the database.

☞ For more information about encryption keys, see “[DatabaseKey connection parameter \[DBKEY\]](#)” [*ASA Database Administration Guide*, page 187].

Start database automatically Select this option to start the database specified in the Database File field before you connect to it.

You should clear the Start Database Automatically option if you want to ensure that you connect only to a running database.

Stop database after last disconnect Select this option to automatically shut down the database after the last user disconnects.

☞ For more information, see “[AutoStop connection parameter \[ASTOP\]](#)” [*ASA Database Administration Guide*, page 179].

ODBC Configuration dialog: Network tab

The Network tab of the ODBC Configuration dialog has the following components:

TCP/IP If you want to use ECC_TLS (formerly Certicom) or RSA_TLS strong encryption for network packets, you must select the TCP/IP protocol to access the network database server. In the adjacent field, you may enter communication parameters that establish and tune the connection from your client application to a database.

For example, to look on the machine server1 on port 4436 for a database server, you would enter **HOST=server1;PORT=4436**.

Contact your network administrator if you are unsure which protocol to use.

SPX You can select the SPX protocol to connect to databases on Novell NetWare networks. NetWare also supports the TCP/IP protocol. In the adjacent field, you may type communication parameters that establish and tune the connection from your client application to a database.

For example, you could enter the following communication parameters for an SPX connection **HOST=0:0:0:0:1/4:236:121:215;PORT=2369**.

Contact your network administrator if you are unsure which protocol to use.

Named pipes The Named Pipes protocol is used for client/server communication on the same machine. If you want to run under a certified security environment, you can use the named pipes protocol. It is only provided on Windows NT.

Contact your network administrator if you are unsure which protocol to use.

Shared memory The shared memory protocol is used for communication between a client and server running under the same operating system on the same machine.

Contact your network administrator if you are unsure which protocol to use.

 For more information, see “CommLinks connection parameter [LINKS]” [*ASA Database Administration Guide*, page 181], and “Network protocol options” [*ASA Database Administration Guide*, page 206].

Liveness timeout A liveness packet is sent across a client/server to confirm that a connection is intact. If the client runs for the liveness timeout period without detecting a liveness packet, the communication is severed. This parameter only works with network server and TCP/IP or IPX communication protocols.

The default liveness timeout is 120 seconds.

☞ For more information, see [“LivenessTimeout connection parameter \[LTO\]” \[ASA Database Administration Guide, page 199\]](#).

Idle timeout Set the amount of client idle time before the connection is terminated. If a client runs for the idle timeout period without submitting a request, the connection is severed.

The default client idle time is 240 minutes.

☞ For more information, see [“Idle connection parameter \[IDLE\]” \[ASA Database Administration Guide, page 196\]](#).

Buffer size Set the maximum size of communication packets, in bytes. You should set the buffer size to be smaller than that allowed by your network because the network software may add information to each buffer before sending it over the network.

The default buffer size is 1460 bytes.

☞ For more information, see [“CommBufferSize connection parameter \[CBSIZE\]” \[ASA Database Administration Guide, page 180\]](#).

Compress network packets Select this option to turn on compression for the connection. Using compression for a connection can significantly improve Adaptive Server Anywhere performance under some circumstances.

☞ For more information, see [“Compress connection parameter \[COMP\]” \[ASA Database Administration Guide, page 183\]](#).

Select the method for encryption of network packets Allows the encryption of packets transmitted from the client machine over the network.

Separately licensable option required

Transport-layer security requires that you obtain the separately-licensable SQL Anywhere Studio security option and is subject to export regulations.

☞ To order this component, see [“Separately-licensable components” \[Introducing SQL Anywhere Studio, page 5\]](#).

- ◆ **None** Communication packets transmitted from the client are not encrypted. This is the default setting.
- ◆ **Simple** Communication packets transmitted from the client are encrypted with Simple encryption. Simple encryption is supported on all platforms, as well as on previous versions of Adaptive Server Anywhere. Simple encryption is not as strong as ECC_TLS or RSA_TLS encryption.
- ◆ **ECC_TLS** Select this option to enable ECC_TLS (formerly Certicom) encryption. ECC_TLS encryption protects the confidentiality and

integrity of network packets as they pass between the client and the server. It is only available over the TCP/IP protocol.

In the adjacent field you must supply a trusted certificate value. You can also click Edit to supply this value.

- ◆ **RSA_TLS** Select this option to enable RSA_TLS encryption. RSA_TLS encryption protects the confidentiality and integrity of network packets as they pass between the client and the server. It is only available over the TCP/IP protocol.

In the adjacent field you must supply a trusted certificate value. You can also click Edit to supply this value.

- ◆ **RSA_TLS_FIPS** Select this option to enable RSA_TLS_FIPS encryption. When this option is selected, the database server accepts communication packets encrypted using FIPS-approved RSA encryption technology. RSA_TLS_FIPS uses a separate approved library than RSA_TLS, but is compatible with clients specifying RSA_TLS with Adaptive Server Anywhere 9.0.2 or later. To use this type of encryption, both the client and the server must be operating on a supported 32-bit Windows operating system, and the connection must be over the TCP/IP port.

In the adjacent field you must supply a trusted certificate value. You can also click Edit to supply this value.

- **Edit** Click Edit to supply encryption values for trusted certificates, certificate company, certificate unit, and certificate name in the [“Certicom Encryption Options dialog” on page 26](#).

For more information, see [“Encryption connection parameter \[ENC\]” \[ASA Database Administration Guide, page 191\]](#) and [“FIPS 140-2 certification” \[SQL Anywhere Studio Security Guide, page 28\]](#).

See also

- ◆ [“Certicom Encryption Options dialog” on page 26](#)

ODBC Configuration dialog: Advanced tab

The Advanced tab of the ODBC Configuration dialog has the following components:

Connection name Type a name to identify the connection. This field is optional.

Character set Type a character set name. By default, the client's ANSI character set is used, for example cp1252 for English systems. You can also supply an OEM character set instead of an ANSI character set.

Allow multiple record fetching Select this option to retrieve multiple records at one time, instead of individually, for improved performance.

Display debugging information in a log file Select this option to record diagnostic information on communications links in the log file.

◆ **Log file** Type the name of the log file where you want to save the debugging information.

Additional connection parameters Type any additional connection parameters in this field in a semicolon separated list. For example,

```
DEBUG=YES;LOG=connection.log
```

Parameters set in this field take precedence over parameters set throughout the rest of this dialog. For example, if you enter the user ID DBA on the Identification tab, and set the connection parameter "uid=bsmith" in this field, a connection with the user ID bsmith is attempted.

☞ For more information about connection parameters, see [“Connection parameters”](#) [*ASA Database Administration Guide*, page 176] and [“How connection parameters work”](#) [*ASA Database Administration Guide*, page 40].

Certicom Encryption Options dialog

This dialog displays fields for the client's Certicom encryption settings.

The Certicom Encryption Options dialog has the following components:

Trusted certificates Type the name of the certificate file the client uses to authenticate the server. You can also click **Browse** to select the trusted certificate from the file directory. This is a required field.

Certificate company Type the name of the certificate authority or organization that issued the certificate. The server's and the client's values must match. This is an optional field.

Certificate unit Type the certificate unit. This is also called the organizational unit. The server's and the client's values must match. This is an optional field.

Certificate name Type the certificate's common name. The server's and the client's values must match. This is an optional field.

CHAPTER 3

Adaptive Server Anywhere Help

About this chapter

This chapter provides descriptions of all the property sheets and dialogs you can access from the Adaptive Server Anywhere plug-in in Sybase Central.

Contents

Topic:	page
Introduction to property sheets	28
Introduction to dialog boxes	121
Debugger help	150
Index Consultant	152

Introduction to property sheets

The Adaptive Server Anywhere plug-in provides a number of property sheets that let you configure object properties.

The following sections contain detailed descriptions of each property sheet in the Adaptive Server Anywhere plug-in. Each one becomes available in the File menu when you select an object, and is also available in a popup menu when you right-click an object.

Article property sheet

The Article property sheet consists of four tabs: General, Columns, WHERE Clause, and SUBSCRIBE BY Restriction.

See also

- ◆ [“Publication design for Adaptive Server Anywhere” \[SQL Remote User’s Guide, page 102\]](#)

Article property sheet: General tab

The General tab of the Article property sheet has the following components:

Name Shows the name of the [article](#) and the article’s owner in parentheses.

Type Shows the type of the object.

Publication Shows the publication the article belongs to. The name of the publication’s owner appears in parentheses.

See also

- ◆ [“Table property sheet” on page 103](#)
- ◆ [“Publication design for Adaptive Server Anywhere” \[SQL Remote User’s Guide, page 102\]](#)

Article property sheet: Columns tab

The Columns tab of the Article property sheet has the following components:

All columns Select this option to include all the columns of the table in the article.

Selected columns Select this option if you want the article to contain only some of the columns from the table. Selecting this option enables the checkboxes beside the column names in the Selected Columns list. The list includes all the columns of the table the article is based on.

When you choose this option, you must include at least one column in the article. To include a column in the article, select the checkbox beside the column name so that a checkmark appears. You can click Select All to

include all the columns in the list in the article.

- ◆ **Select All** Select this option to include all the columns of the table in the article.
 - ◆ **Clear All** Select this option clear all the checkboxes in the Selected Columns list.
- See also
- ◆ [“Publication design for Adaptive Server Anywhere” \[SQL Remote User’s Guide, page 102\]](#)

Article property sheet: WHERE Clause tab

Articles defined for SQL Remote and MobiLink publications can use a WHERE clause to define a subset of rows of a table to be included in an article. UltraLite applications can use row subsets by supplying a WHERE clause, with one exception: articles in UltraLite publications governing HotSync synchronization cannot use a WHERE clause.

The WHERE Clause tab of the Article property sheet has the following components:

This article has the following WHERE clause You can edit the WHERE clause in the window to restrict the table rows that are included in the article.

For example, to include only the rows that contain a salary of more than \$50000, type:

```
WHERE salary > 50000
```

See also

- ◆ [“CREATE PUBLICATION statement” \[ASA SQL Reference, page 385\]](#)
- ◆ [“Publication design for Adaptive Server Anywhere” \[SQL Remote User’s Guide, page 102\]](#)
- ◆ [“The WHERE clause: specifying rows” \[ASA SQL User’s Guide, page 225\]](#)

Article property sheet: SUBSCRIBE BY Restriction tab

This tab only applies to SQL Remote articles.

The SUBSCRIBE BY Restriction tab of the Article property sheet has the following components:

None Sets the article to avoid using SUBSCRIBE BY columns or clauses to partition rows.

Column Sets the article to partition rows from the table based on a column (SUBSCRIBE BY columns). Once you select this option, you must select a column from the dropdown list.

Expression Sets the article to partition rows from the table based on an expression entered in the field below.

See also

- ◆ [“Publication design for Adaptive Server Anywhere” \[SQL Remote User’s Guide, page 102\]](#)
- ◆ [“CREATE PUBLICATION statement” \[ASA SQL Reference, page 385\]](#)

Check Constraint property sheet

The Check Constraint property sheet consists of two tabs: General and Definition.

Check Constraint property sheet: General tab

The General tab of the Check Constraint property sheet has the following components:

Name Shows the name of the selected check constraint. You can edit the name of the check constraint in the adjacent field.

Type Shows the type of object.

Table Shows the table the check constraint belongs to.

Column Shows the column the check constraint applies to. This information appears only for column check constraints, not for table constraints.

See also

- ◆ [“Choosing constraints” \[ASA SQL User’s Guide, page 28\]](#)
- ◆ [“Using CHECK constraints on tables” \[ASA SQL User’s Guide, page 89\]](#)
- ◆ [“Using CHECK constraints on columns” \[ASA SQL User’s Guide, page 88\]](#)

Check Constraint property sheet: Definition tab

The Definition tab of the Check Constraint property sheet has the following components:

This check constraint has the following definition Provides a place for you to type the check constraint. A column check constraint is used to ensure that no inappropriate values are entered into any column of the specified type, while a table check constraint ensures that no row in a table violates the constraint.

See also

- ◆ [“Choosing constraints” \[ASA SQL User’s Guide, page 28\]](#)
- ◆ [“Using CHECK constraints on columns” \[ASA SQL User’s Guide, page 88\]](#)
- ◆ [“Using CHECK constraints on tables” \[ASA SQL User’s Guide, page 89\]](#)

Column property sheet

This Column property sheet displays information about columns that belong to a table. If you want to view column properties for columns that belong to a view, see “[Column property sheet \(View\)](#)” on page 34.

The Column property sheet for tables consists of four tabs: General, Data Type, Value, and Constraints.

See also

- ◆ “Working with tables” [*ASA SQL User’s Guide*, page 40]

Column property sheet: General tab

The General tab of the Column property sheet has the following components:

Name The name of the column. You can change the column name in the adjacent field.

Type Shows the object’s type.

Table Shows the name of the table the column belongs to, as well as the table’s owner.

Comment Provides a place for you to type a text description of the column. For example, you could use this area to describe the column’s purpose in the system.

See also

- ◆ “Working with tables” [*ASA SQL User’s Guide*, page 40]

Column property sheet: Data Type tab

The Data Type tab of the Column property sheet has the following components:

Built-in type Select this option to choose a predefined [data type](#) for the column from the dropdown list. Integers, character strings, and dates are examples of predefined data types. For some of these types, you can specify size and/or scale.

- ◆ **Size** Specifies the length of string columns, or the total number of digits to the left and right of the decimal point in the result of any decimal arithmetic for numeric columns. For numeric columns, the size is also called the PRECISION value.

☞ For more information about the PRECISION value, see “[PRECISION option \[database\]](#)” [*ASA Database Administration Guide*, page 682].

- ◆ **Scale** Specifies the minimum number of digits after the decimal point

when an arithmetic result is truncated to the maximum PRECISION value.

☞ For more information about data types, see “SQL Data Types” [*ASA SQL Reference*, page 53].

Domain Select this option to choose a domain from the dropdown list. A domain is a named combination of built-in data types, default value, check condition, and nullability.

Java class Select this option to choose a [Java class](#) for the column from the dropdown list. If the database does not support Java, this option is not enabled.

See also

- ◆ “Choosing data types for columns” [*ASA SQL User’s Guide*, page 27]
- ◆ “Using domains” [*ASA SQL User’s Guide*, page 92]
- ◆ “Ensuring Data Integrity” [*ASA SQL User’s Guide*, page 79]
- ◆ “Using Java in the Database” [*ASA Programming Guide*, page 81]
- ◆ “Working with tables” [*ASA SQL User’s Guide*, page 40]

Column property sheet: Value tab

The Value tab of the Column property sheet has the following components:

No default or computed value Select this option if the column is not a computed value and has no default value.

Default value Select this option if the column has a default value. If the column is based on a domain, this setting inherits the domain’s default value (if any), but the value can be overridden for the column. Choosing the Default Value option enables the User-defined and System defined options.

- ◆ **User-defined** Lets you type a custom value (string, number, or other expression) for the default value. If you’ve based the column on a domain, you can retain the domain’s default value (if any) or override it for the column.
 - **Literal string** Lets you specify whether or not the default value for the column should be treated as a literal string. This option is selected by default for character columns and domains with a character base type. When this option is selected, the default text does not need to be enclosed in single quotes, and you do not need to escape embedded single quotes or backslashes in the string.
When this option is cleared, the automatic quoting and escaping behavior is turned off and the specified default value text is passed as is to the server.
- ◆ **System-defined** Lets you select a pre-defined value (for example, current date) for the default value. You must select a value from the

dropdown list. If you have based the column on a domain, you can retain the domain's default value (if any) or override it for the column.

- **Partition size** When you select global autoincrement for the system-defined value, you can also supply a partition size.

Global autoincrement assigns each new row a value of one greater than the previous highest value in the column. The partition size restricts the maximum value that global autoincrement can use. You can enter any positive integer for the partition size. Generally, you should select a value so that the supply of numbers is rarely, if ever, exhausted.

☞ For more information, see [“The AUTOINCREMENT default” \[ASA SQL User's Guide, page 85\]](#) and [“CREATE TABLE statement” \[ASA SQL Reference, page 407\]](#).

Computed value Select this option to define a computed value for the column. A computed column derives its values from calculations of values in other columns. Type an expression in the text box to describe the relationship between the other columns and the value that appears in the computed column.

☞ For more information about computed values, see [“ALTER TABLE statement” \[ASA SQL Reference, page 294\]](#) and [“Subqueries in expressions” \[ASA SQL Reference, page 17\]](#).

See also

- ◆ [“SQL Functions” \[ASA SQL Reference, page 91\]](#)
- ◆ [“Using column defaults” \[ASA SQL User's Guide, page 83\]](#)
- ◆ [“Working with computed columns” \[ASA SQL User's Guide, page 49\]](#)

Column property sheet: Constraints tab

The Constraints tab of the Column property sheet has the following components:

Values can be null Select this option if values in the column can be NULL. If the column is based on a domain, you can retain the domain's nullability or override it for the column.

Values cannot be null Select this option to allow duplicate values, but not allow NULL values in this column.

Values cannot be null and must be unique Select this option if values in the column cannot be NULL and must be unique.

See also

- ◆ [“Choosing constraints” \[ASA SQL User's Guide, page 28\]](#)
- ◆ [“Ensuring Data Integrity” \[ASA SQL User's Guide, page 79\]](#)

Column property sheet (View)

This Column property sheet displays information about columns that belong to a view. If you want to obtain information about columns that belong to a table, see [“Column property sheet” on page 31](#).

The Column property sheet for views consists of one tab: General.

Column property sheet (View): General tab

The General tab of the Column property sheet has the following components:

Name Shows the name of the selected column.

Type Shows the type of object.

View Shows the name of the view the column belongs to, with the name of the view’s owner in parenthesis.

Data type Shows the data type of the selected column.

Allows null Shows whether the selected column allows NULL values.

See also

- ◆ [“SQL Data Types” \[ASA SQL Reference, page 53\]](#)
- ◆ [“Choosing constraints” \[ASA SQL User’s Guide, page 28\]](#)

Connected User property sheet

The Connected User property sheet consists of two tabs: General and Extended Information.

Connected User property sheet: General tab

The General tab of the Connected User property sheet has the following components:

Connection ID Shows the connection ID for the user.

When a user connects to a database, the database server assigns the connection a unique connection ID. For each new connection to the database server, the server increments the connection ID value by 1.

Type Shows the type of object.

User Shows the database user ID.

Connection name Shows the connection name for the database the user is connected to. Naming your connections allows multiple connections to the same database, or multiple connections to the same or different database server, to be easily identified.

Communication link Shows the type of communications link used by the user's connection. If the connection is between an Adaptive Server Anywhere client and network server, the link type represents the network protocol being used.

Node address Shows the communications port ID used by the user's connection.

Last request type Shows the type of the last request.

Last request time Shows the time at which the last request for the connection started.

Blocked on connection Shows whether the connection is blocked. If the current connection is not blocked, this is zero. If it is blocked, the connection number on which the connection is blocked due to a locking conflict.

See also

- ◆ [“Managing connected users”](#) [*ASA Database Administration Guide*, page 443]
- ◆ [“Connection-level properties”](#) [*ASA Database Administration Guide*, page 713]

Connected User property sheet: Extended Information tab

The Extended Information tab of the Connected User property sheet has the following components:

Connected user properties list Lists the name and value of the properties for the connected user. Click Refresh to update the values. You can also press F5 to refresh the values.

- ◆ **Refresh** Click Refresh to update the values in the Connected user properties list.

Description Provides a description of the selected property.

See also

- ◆ [“Managing connected users”](#) [*ASA Database Administration Guide*, page 443]
- ◆ [“Connection-level properties”](#) [*ASA Database Administration Guide*, page 713]

Consolidated User property sheet

The Consolidated User property sheet consists of four tabs: General, Authorities, Permissions, and SQL Remote.

See also

- ◆ [“Managing User IDs and Permissions”](#) [*ASA Database Administration Guide*, page 427]
- ◆ [“Granting and revoking remote permissions”](#) [*ASA Database Administration Guide*, page 440]

Consolidated User property sheet: General tab

The General tab of the Consolidated User property sheet has the following components:

Name Shows the name of the consolidated user.

Type Shows the type of object.

Allowed to connect Select this option to allow the consolidated user to connect to the database. If the consolidated user is not allowed to connect, the password (if one was supplied) is removed from the account. If you later change the consolidated user to allow them to connect, you must supply a new password. Clearing this option disables the Password and Confirm Password options.

Users are almost always allowed to connect.

- ◆ **Password** Type the password for the consolidated user. For added security, the characters appear as asterisks.
- ◆ **Confirm password** Confirm the password that you typed in the Password text box by entering it again. The contents of the two fields must match exactly.

Comment Provides a place for you to type a text description of the consolidated user. For example, you could use this area to describe the consolidated user's purpose in the system.

See also

- ◆ [“GRANT CONSOLIDATE statement \[SQL Remote\]” \[ASA SQL Reference, page 508\]](#)
- ◆ [“Granting and revoking remote permissions” \[ASA Database Administration Guide, page 440\]](#)
- ◆ [“Managing User IDs and Permissions” \[ASA Database Administration Guide, page 427\]](#)

Consolidated User property sheet: Authorities tab

The Authorities tab of the Consolidated User property sheet has the following components:

DBA Select this option to grant DBA authority to the consolidated user; a user with DBA authority can fully administer the database.

Resource Select this option to grant resource authority to the consolidated user; a user with resource authority can create database objects.

Remote DBA Select this option to grant Remote DBA authority to the consolidated user. The SQL Remote Message Agent should be run using a

user ID with this type of authority to ensure that actions can be carried out without creating security loopholes. The MobiLink client utility, dbmlsync, also requires Remote DBA authority.

See also

- ◆ [“Managing User IDs and Permissions”](#) [*ASA Database Administration Guide*, page 427]

Consolidated User property sheet: Permissions tab

The Permissions tab of the Consolidated User property sheet has the following components:

Permissions list Shows all tables the consolidated user has permissions on, as well as the user who owns each table. You can click the fields beside each user to grant or revoke permissions; double-clicking (so that a checkmark and two + signs appear) gives the user grant options for the permission.

Show Select what type of object appears in the Permissions list:

- ◆ **Tables** Displays all tables the consolidated user has permissions on.
- ◆ **Views** Displays all views the consolidated user has permissions on.
- ◆ **Procedures & functions** Displays all procedures and functions the consolidated user has permissions on. You can only grant Execute permissions for procedures and functions.

See also

- ◆ [“Managing User IDs and Permissions”](#) [*ASA Database Administration Guide*, page 427]

Consolidated User property sheet: SQL Remote tab

The SQL Remote tab of the Consolidated User property sheet has the following components:

Message type Select a message type for communicating with the [publisher](#).

Address Type the destination for replication messages. Publishers and remote users each have their own address. The address must be valid for the Message Type you select. For example, if you select the FTP message type, a valid address is a host (such as ftp.mycompany.com) or an IP address (such as 192.138.151.66).

Send then close Select this option to set the [replication frequency](#) so that the publisher’s agent runs once, sends all pending messages to this remote user, and then shuts down. The agent must be restarted each time the

publisher wants to send messages. This option is only useful when you are running the message agent at a remote site.

Send every Select this option to set the replication frequency so that the publisher's agent runs continuously, sending messages to this remote user at the given periodic interval. This option is useful at both consolidated and remote sites.

Send daily at Select this option to set the replication frequency so that the publisher's agent runs continuously, sending messages to this remote user each day at the given time. This option is particularly useful at remote sites.

See also

- ◆ [“GRANT REMOTE statement \[SQL Remote\]” \[ASA SQL Reference, page 511\]](#)

Database property sheet

The Database property sheet consists of five tabs: General, Settings, Extended Information, SQL Remote, and Profiling.

See also

- ◆ [“Working with databases” \[ASA SQL User's Guide, page 31\]](#)

Database property sheet: General tab

Database properties listed on this tab cannot be changed without rebuilding the database.

☞ For information about rebuilding a database, see [“Rebuilding databases” \[ASA SQL User's Guide, page 580\]](#).

The General tab of the Database property sheet has the following components:

Name Shows the name of the database.

Type Shows the type of object.

ID Shows a unique number assigned by the server to each database that is started on it. The number makes it possible to distinguish between databases running on the same server.

Capability ID Shows the capability bits enabled for the database. This value only appears for Adaptive Server Anywhere databases that are version 8 and higher.

You can view a list of the capabilities that are enabled for the database on the Extended Information tab of the Database property sheet.

Java JDK version Shows the version of the JDK supported by the database at the time of installation. If Java is not supported in the database,

None appears.

Page size Shows the page size of the database in bytes.

Database file Shows the root database file for the database.

Log file Shows the name and location of the [transaction log](#) file for the database.

Mirror log file Shows the name and location of the [transaction log mirror](#) file for the database.

User Shows the user ID of the user connected to the database.

Connection ID Shows the [connection ID](#) for the database's connection from Sybase Central.

Connection name Shows the connection name for the user connected to this database. Naming your connections allows multiple connections to the same database, or multiple connections to the same or different database server, to be easily identified.

Communication link Shows the type of communications link used by the user's connection. If the connection is between an Adaptive Server Anywhere client and network server, the link type represents the network protocol being used.

Total connections Shows the total number of current connections to the database from all users, including the Sybase Central connection.

See also

- ◆ “Database-level properties” [[ASA Database Administration Guide, page 733](#)]
- ◆ “Working with databases” [[ASA SQL User's Guide, page 31](#)]

Database property sheet: Settings tab

Database properties listed on this tab cannot be changed without rebuilding the database.

☞ For information about rebuilding a database, see “[Rebuilding databases](#)” [[ASA SQL User's Guide, page 580](#)].

The Settings tab of the Database property sheet has the following components:

Encryption type Shows whether or not the database is encrypted, and the type of encryption: Simple, AES, or MDSR. If encryption is not supported in the database, None appears.

☞ For information about the types of encryption supported by Adaptive Server Anywhere, see “[Encrypting a database](#)” [[SQL Anywhere Studio Security Guide, page 15](#)].

Case sensitive Shows whether or not the database is case sensitive. This property applies to the data in the database, and to passwords, but not to table names, column names, and other identifiers.

Ignore trailing blanks Shows whether the database ignores trailing blanks in comparisons.

Default collation Shows the default collation of the database.

Checkpoint urgency Shows the time that has elapsed since the last checkpoint as a percentage of the checkpoint time setting of the database. Click Refresh or press F5 to update the Checkpoint urgency value.

Recovery urgency Shows an estimate of the amount of time required to recover the database. Click Refresh or press F5 to update the Recovery urgency value.

◆ **Refresh** Click Refresh to update the checkpoint urgency and recovery urgency values.

Database Capabilities Lists database capabilities. A green checkmark appears beside the capabilities that are enabled for the database. A red X appears beside capabilities that are not enabled for the database.

See also

- ◆ [“Working with databases” \[ASA SQL User’s Guide, page 31\]](#)
- ◆ [“Database-level properties” \[ASA Database Administration Guide, page 733\]](#)

Database property sheet: Extended Information tab

The Extended Information tab of the Database property sheet has the following components:

Database properties list Lists the name and value of the properties for the database. Click Refresh to update the values. You can also press F5 to refresh the values.

◆ **Refresh** Click Refresh to update the values in the Database Properties list.

Description Provides a description of the selected property.

See also

- ◆ [“Working with databases” \[ASA SQL User’s Guide, page 31\]](#)
- ◆ [“Database-level properties” \[ASA Database Administration Guide, page 733\]](#)

Database property sheet: SQL Remote tab

The SQL Remote tab of the Database property sheet has the following components:

This database has a publisher Select this option to supply the name of the database's publisher. Selecting this option enables the Publisher field below.

- ◆ **Publisher** Type the name of the publisher for the database. You can click Change to select a publisher in the Set Publisher dialog.

This remote database has a corresponding consolidated database

Select this option if the database is acting as a remote database.

- ◆ **Consolidated user** Click Change to select the consolidated user from the list of available candidates in the Set Consolidated User dialog.
- ◆ **Message type** Select the message type for communicating with the publisher from the dropdown list.

☞ For information about the message types supported by SQL Remote, see [“Using message types” \[SQL Remote User's Guide, page 210\]](#).

- ◆ **Address** Provides a place for you to type the remote address of the consolidated user. The address is a string, according to the specified message type, to which the replication messages should be sent for the user.
 - **Send then close** Sets the [replication frequency](#) so that the Message Agent runs once, sends all pending messages then shuts down. The Message Agent must be restarted each time the publisher wants to send messages. This option is only useful when you are running the message agent at a remote site.

In most replication setups, this option is not used for sending publications from the consolidated publisher to the remote group.
 - **Send every** Select this option to set the replication frequency so that the Message Agent runs continuously, sending messages to this consolidated user at the given periodic interval. This option is useful at both consolidated and remote sites.
 - **Send daily at** Select this option to set the replication frequency so that the Message Agent runs continuously, sending messages each day at the given time.

Subscribers Shows the number of remote users subscribing to publications in the database.

Subscriptions Shows the number of subscriptions to publications in the database.

Started subscriptions Shows the number of subscriptions in the database that have been started.

See also

-
- ◆ “Publications and subscriptions” [*SQL Remote User’s Guide*, page 11]
 - ◆ Set Publisher dialog
 - ◆ Set Consolidated User dialog

Database property sheet: Profiling tab

The Profiling tab of the Database property sheet has the following components:

Enable profiling on this database Select this option if you want Adaptive Server Anywhere to monitor the execution times of stored procedures, functions, events, and triggers. You can use database profiling information to determine which procedures can be fine-tuned to increase performance within your database. Profiling information appears on the Profile tab in Sybase Central.

Reset Now Deletes all the collected profiling data for the database. The database immediately starts collecting new profiling information about procedures, functions, events, and triggers.

Clear Now Select this option to delete all the collected profiling data for the database and turn off profiling for the database. This button is only enabled when profiling is turned on for the database.

See also

- ◆ “Profiling database procedures” [*ASA SQL User’s Guide*, page 202]

Dbospace property sheet

The Dboospace property sheet consists of one tab: General.

Dbospace property sheet: General tab

The General tab of the Dboospace property sheet has the following components:

Name Shows the name of the dboospace.

Type Shows the type of object.

File name Shows the name of the database file that the **dboospace** points to. For new spaces, you can supply a new file name.

Pre-allocate Space Now Displays the Pre-allocate Space for Dboospace dialog, which lets you pre-allocate storage in the dboospace by adding pages to it. Adding pages may improve performance for bulk-loading operations.

See also

- ◆ “Pre-allocating space for database files” [*ASA Database Administration Guide*, page 291]
- ◆ Pre-allocate Space for Dboospace dialog

Domain property sheet

The Domain property sheet consists of two tabs: General and Check Constraint.

Domain property sheet: General tab

The General tab of the Domain property sheet has the following components:

Name Shows the name of the domain.

Type Shows the type of object.

Creator Shows the database user who created and owns the domain.

Base type Shows the pre-defined data type of the domain. If the data type has a format, it is listed after the type's name.

Allows null Shows whether columns based on the domain allow NULLs.

Default value Shows the default value of the domain. If the domain does not have a default value, nothing appears. Columns based on the domain inherit the default value, but you can subsequently override it.

See also

- ◆ “Domains” [*ASA SQL Reference*, page 77]

Domain property sheet: Check Constraint tab

The Check Constraint tab of the Domain property sheet has the following components:

This domain has the following check constraint Lets you define specified conditions on a column or set of columns to make up the [check constraint](#) of the table and restrict the values that can be entered in the column(s).

For example, to check whether an employee's start date falls in a particular range, type:

```
CHECK ( start_date BETWEEN '1983/06/27'
        AND CURRENT DATE )
```

☞ For more information about check constraints, see “Using CHECK constraints on columns” [*ASA SQL User's Guide*, page 88].

See also

- ◆ “Using domains” [*ASA SQL User's Guide*, page 92]
- ◆ “Choosing constraints” [*ASA SQL User's Guide*, page 28]

Event property sheet

The Event property sheet consists of two tabs: General and Conditions.

Event property sheet: General tab

The General tab of the Event property sheet has the following components:

Name Shows the name of the event.

Type Shows the type of object.

Creator Shows the database user who created and owns the event.

Enabled Select this option to execute the event when the scheduled time or trigger condition occurs.

You must enable the event to trigger it manually from Sybase Central.

Executes at Shows which of the following locations the event executes at.

- ◆ **All databases** Executes the event at all remote locations
- ◆ **Consolidated database** For databases involved in SQL Remote replication, this executes the event at the consolidated database only, and not at any of the remote locations.
- ◆ **Remote database** For databases involved in SQL Remote replication, this executes the event at a remote database only, and not at the consolidated database.

Comment Provides a place for you to type a text description of the event. For example, you could use this area to describe the event's purpose in the system.

See also

- ◆ [“CREATE EVENT statement” \[ASA SQL Reference, page 351\]](#)
- ◆ [“Automating Tasks Using Schedules and Events” \[ASA Database Administration Guide, page 301\]](#)
- ◆ [“Trigger Event dialog” on page 143](#)

Event property sheet: Conditions tab

The Conditions tab of the Event property sheet has the following components:

Manually Executes the event only when you manually trigger it.

By the following schedules Executes the event according to the schedule you define.

- ◆ **New** Displays the Create Schedule dialog, which lets you create a new schedule for the event.
- ◆ **Edit** Displays the Edit Schedule dialog, which lets you change an existing schedule.
- ◆ **Delete** Removes the schedule from the list so that the event no longer executes according to that schedule.

When the following occurs Executes the event when a circumstance or condition is met.

- ◆ **System event** Select a system event that must occur to trigger the event.
 - ☞ For more information about system events, see [“Choosing a system event” \[ASA Database Administration Guide, page 307\]](#).
- ◆ **And the following trigger conditions** Set trigger conditions that must be satisfied, in addition to the system event, which trigger the event.
 - ☞ For more information about trigger conditions, see [“Defining trigger conditions for events” \[ASA Database Administration Guide, page 308\]](#).
 - **New** Displays the Create Trigger Condition dialog, which lets you create a new trigger condition for the event.
 - **Edit** Displays the Edit Trigger Condition dialog, which lets you change an existing trigger condition.
 - **Delete** Removes the trigger condition from the list so that the event no longer executes based on that trigger condition.

See also

- ◆ [“CREATE EVENT statement” \[ASA SQL Reference, page 351\]](#)
- ◆ [“Automating Tasks Using Schedules and Events” \[ASA Database Administration Guide, page 301\]](#)

External Login property sheet

The External Login property sheet consists of one tab: General.

External Login property sheet: General tab

The General tab of the External Login property sheet has the following components:

Name Shows the name of the external login.

Type Shows the type of object.

Remote server Shows the name of the remote server the external login is used to communicate with.

User Shows the name of the database user the external login is for.

Login name Shows the login name on the remote server.

See also

- ◆ “Working with external logins” [*ASA SQL User’s Guide*, page 612]
- ◆ “CREATE EXTERNLOGIN statement” [*ASA SQL Reference*, page 360]

Foreign Key property sheet

The Foreign Key property sheet consists of two tabs: General and Columns.

See also

- ◆ “Managing foreign keys” [*ASA SQL User’s Guide*, page 47]

Foreign Key property sheet: General tab

The General tab of the Foreign Key property sheet has the following components:

Name Shows the name of the [foreign key](#). You can change the name of the foreign key in this field.

Type Shows the type of object.

Foreign table Shows the name of the table the foreign key belongs to, as well as the table’s owner.

Primary table Shows the table containing primary key in this foreign key relationship.

Check on commit Forces the database to wait for a COMMIT before checking the integrity of the foreign key, overriding the setting of the WAIT_FOR_COMMIT database option.

Allows null Determines whether the foreign key columns allow NULL values. To use this option, the foreign key columns must all have Allow Nulls set to Yes.

- ◆ **Change** Opens the Change Settings dialog where you can change the settings for this primary key.

Update action Uses one of the following settings to define the behavior of the table when a user tries to update data.

- ◆ **Not permitted** Prevents updates of the associated primary table’s primary key value if there are no corresponding foreign keys.
- ◆ **Cascade** Updates the foreign key to match a new value for the associated primary key.
- ◆ **Set to null** Sets all the foreign key values that correspond to the updated primary key of the associated primary table to NULL.

To use this option, the foreign key columns must all have Allow Nulls set to Yes.

- ◆ **Set Default** Sets foreign key values that match the updated or deleted primary key value to values specified in the DEFAULT clause of each foreign key column. To use this option, the foreign key columns must all have default values.

Delete action Uses one of the following settings to define the behavior of the table when a user tries to delete data.

- ◆ **Not permitted** Prevents deletion of the associated primary table's primary key value if there are no corresponding foreign keys in the table.
- ◆ **Cascade** Deletes the rows from the table that match the deleted primary key of the associated primary table.
- ◆ **Set values to NULL** Sets all the foreign key values in the table that correspond to the deleted primary key of the associated primary table to NULL.

To use this option, the foreign key columns must all have Allow Nulls set to Yes.

- ◆ **Set Default** Sets foreign key values that match the updated or deleted primary key value to values specified in the DEFAULT clause of each foreign key column. To use this option, the foreign key columns must all have default values.

Clustered Shows whether the primary or foreign table uses a clustered index. Clustered indexes are supported for Adaptive Server Anywhere databases that are version 8.0.2 and higher.

Clustered indexes in Adaptive Server Anywhere store the table rows in approximately the same order as they appear in the corresponding index. Using a clustered index can lead to performance benefits by reducing the number of times each page needs to be read into memory. Only one index on a table can be a clustered index.

☞ For more information about clustered indexes, see [“CREATE INDEX statement” \[ASA SQL Reference, page 368\]](#).

- ◆ **Set Clustered Index Now** Opens the Set Clustered Index dialog where you can specify that an index on the primary or foreign table is a clustered index.

Index type Shows the type of index the table has.

☞ For more information about indexes, see [“Indexes” \[ASA SQL User's Guide, page 426\]](#).

Maximum hash size This information only appears for databases that are created with Adaptive Server Anywhere 7 or earlier. The hash size is the number of bytes used to store a value in an index.

Adaptive Server Anywhere version 6 and 7 databases use regular B-tree indexes with a hash size of 10.

Comment Provides a place for you to type a text description of the foreign key. For example, you could use this area to describe the foreign key's purpose in the system.

See also

- ◆ [“Managing foreign keys” \[ASA SQL User’s Guide, page 47\]](#)
- ◆ [“Ensuring Data Integrity” \[ASA SQL User’s Guide, page 79\]](#)
- ◆ [“Set Clustered Index dialog” on page 140](#)
- ◆ [“Change Settings dialog” on page 125](#)

Foreign Key property sheet: Columns tab

The Columns tab of the Foreign Key property sheet has the following components:

Foreign Columns list Shows the column in the foreign table that references the primary key.

Primary Columns list Shows the column containing the [primary key](#) that the foreign key references.

- ◆ **Details** Displays the Column Details dialog, which shows a summary of the properties of the selected column.

See also

- ◆ [“Managing foreign keys” \[ASA SQL User’s Guide, page 47\]](#)

Function property sheet

The Function property sheet consists of three tabs: General, Parameters, and Permissions. In most cases, the term procedure refers to both user-defined procedures *and* user-defined functions.

Function property sheet: General tab

The General tab of the Function property sheet has the following components:

Name Shows the name of the function.

Type Shows the type of object.

Owner Shows the name of the database user who created and owns the function.

Dialect Shows the SQL dialect in which the code was last saved. The dialect is either Watcom-SQL or Transact-SQL.

Comment Provides a place for you to type a description of the function. For example, you could use this area to describe the function's purpose in the system.

See also

- ◆ “Function types” [*ASA SQL Reference*, page 92]
- ◆ “CREATE PROCEDURE statement” [*ASA SQL Reference*, page 373]

Function property sheet: Parameters tab

The Parameters tab of the Function property sheet has the following components:

Parameters list Displays the name, data type, parameter type, and mode of the function's parameters. The mode has one of the following values:

- ◆ **In** The parameter is an expression that provides a value to the function.
- ◆ **Out** The parameter is a variable that could be given a value by the function.
- ◆ **Inout** The parameter is a variable that provides a value to the function, and could be given a new value by the function.

See also

- ◆ “Declaring parameters for procedures” [*ASA SQL User's Guide*, page 682]
- ◆ “Using Procedures, Triggers, and Batches” [*ASA SQL User's Guide*, page 655]
- ◆ “CREATE PROCEDURE statement” [*ASA SQL Reference*, page 373]

Function property sheet: Permissions tab

The Permissions tab of the Function property sheet has the following components:

Users list Lists the users who have permissions on the function. If you want to add users to the list, click Grant. To remove permissions from a user, select the user and click Revoke. You can select multiple users by holding Shift while you click.

Click the Execute field beside each user to grant or revoke permissions.

- ◆ **Grant** Displays the Grant Permissions dialog, which lets you grant permissions for the function to other users or groups.
- ◆ **Revoke** Revokes permissions for the function from the user or group and removes them from the Users list.

See also

-
- ◆ “Granting permissions on procedures” [*ASA Database Administration Guide*, page 438]
 - ◆ Grant Permissions dialog

Group property sheet

The Group property sheet consists of three tabs: General, Authorities, and Permissions.

See also

- ◆ “Managing User IDs and Permissions” [*ASA Database Administration Guide*, page 427]
- ◆ “Granting and revoking remote permissions” [*ASA Database Administration Guide*, page 440]

Group property sheet: General tab

The General tab of the Group property sheet has the following components:

Name Shows the name of the group.

Type Shows the type of object.

Allowed to connect Select this option to allow the group to connect to the database. If the group is not allowed to connect, the password (if one was supplied) is removed from the account. If you later change the group to allow them to connect, you must supply a new password. Clearing this option disables the Password and Confirm Password options.

Users are almost always allowed to connect. For a group, however, turning this option off prevents anyone from connecting to the database using the group account itself.

- ◆ **Password** Type the password for the group. For added security, the characters appear as asterisks.
- ◆ **Confirm password** Confirm the password that you typed in the Password text box by entering it again. The contents of the two fields must match exactly.

Comment Provides a place for you to type a text description of the group. For example, you could use this area to describe the group’s purpose in the system.

See also

- ◆ “Creating groups” [*ASA Database Administration Guide*, page 444]
- ◆ “Managing User IDs and Permissions” [*ASA Database Administration Guide*, page 427]

Group property sheet: Authorities tab

The Authorities tab of the Group property sheet has the following components:

DBA Grants DBA authority to the group; a group with DBA authority can fully administer the database.

Resource Grants resource authority to the group; a group with resource authority can create database objects.

Remote DBA Grants Remote DBA authority to the group. A user ID with this type of authority should run the SQL Remote Message Agent to ensure that actions can be carried out without creating security loopholes. The MobiLink client utility, dbmlsync, also requires Remote DBA authority.

See also

- ◆ [“Permissions of groups” \[ASA Database Administration Guide, page 447\]](#)

Group property sheet: Permissions tab

The Permissions tab of the Group property sheet has the following components:

Permissions list Shows all the tables the group has permissions on, as well as the user who owns each table. You can click the fields beside each group to grant or revoke permissions; double-clicking (so that a checkmark and two + signs appear) gives the group grant options for the permission.

Show Select what type of object appears in the Permissions list:

Tables All tables the group has permissions on.

Views All views that the group has permissions on.

Procedures & functions All procedures and functions the group has permissions on. You can only grant Execute permissions for procedures and functions.

See also

- ◆ [“Creating groups” \[ASA Database Administration Guide, page 444\]](#)

Index property sheet

The Index property sheet consists of two tabs: General and Columns.

Index property sheet: General tab

The General tab of the Index property sheet has the following components:

Name Shows the name of the index.

Type Shows the type of object.

Table Shows the name and owner of the table with which the index is associated.

DbSPACE Shows the database file, or **dbSPACE**, where the **index** is located.

Unique Shows whether values in the index must be unique. The unique value is set when you create a new index.

Clustered Shows whether this index is a clustered index. Clustered indexes are supported for Adaptive Server Anywhere databases that are version 8.0.2 and higher.

Clustered indexes in Adaptive Server Anywhere store the table rows in approximately the same order as they appear in the corresponding index. Using a clustered index can lead to performance benefits by reducing the number of times each page needs to be read into memory. Only one index on a table can be a clustered index.

☞ For more information about clustered indexes, see “[CREATE INDEX statement](#)” [*ASA SQL Reference*, page 368].

◆ **Set Clustered Index Now** Opens the Set Clustered Index dialog where you can specify that this index is a clustered index.

Index type Shows the type of index the table has.

Maximum hash size This information only appears for databases that are created with Adaptive Server Anywhere 7 or earlier. The hash size is the number of bytes used to store a value in an index.

☞ For more information about indexes, see “[Indexes](#)” [*ASA SQL User’s Guide*, page 426].

Adaptive Server Anywhere version 6 and 7 databases use regular B-tree indexes with a hash size of 10.

Comment Provides a place for you to type a text description of the index. For example, you could use this area to describe the index’s purpose in the system.

See also

◆ “[Indexes](#)” [*ASA SQL User’s Guide*, page 426]

◆ “[CREATE INDEX statement](#)” [*ASA SQL Reference*, page 368]

Index property sheet: Columns tab

The Columns tab of the Index property sheet has the following components:

Columns list Shows all the columns in the index, as well as their order, either ascending or descending. You set the order when you create a new

index.

The columns are sorted by their sequence, which is a unique number starting at 0. The order of the numbers determines the relative position of the columns in the index.

- ◆ **Details** Displays the Column Details dialog, which shows a summary of the properties of the selected column.

See also

- ◆ [“Indexes” \[ASA SQL User’s Guide, page 426\]](#)
- ◆ [“Working with indexes” \[ASA SQL User’s Guide, page 62\]](#)
- ◆ [“CREATE INDEX statement” \[ASA SQL Reference, page 368\]](#)

Integrated Login property sheet

The Integrated Login property sheet consists of one tab: General.

Integrated Login property sheet: General tab

The General tab of the Integrated Login property sheet has the following components:

Name Shows the name of the integrated login.

Type Shows the type of object.

Database user Shows the database user the integrated login is for.

Comment Provides a place for you to type a text description of the integrated login. For example, you could use this area to describe the integrated login’s purpose in the system.

See also

- ◆ [“Using integrated logins” \[ASA Database Administration Guide, page 74\]](#)

JAR File property sheet

The JAR File property sheet consists of one tab: General.

JAR File property sheet: General tab

The General tab of the JAR file property sheet has the following components:

Name Shows the name of the JAR file.

Type Shows the type of object.

Creator Shows the database user who created and owns the JAR file.

Date created Shows the date the JAR file was created.

Date modified Shows the date the JAR file was last modified.

Comment Provides a place for you to type a text description of the JAR file. For example, you could use this area to describe the JAR file’s purpose in the system.

Update Now Displays the Update JAR File dialog, which lets you update the JAR file.

☞ For more information about updating a Java Class, see [“Updating classes and Jars” \[ASA Programming Guide, page 91\]](#).

Java Class property sheet

The Java Class property sheet consists of one tab: General.

Java Class property sheet: General tab

The General tab of the Java Class property sheet has the following components:

Name Shows the name of the Java class.

Type Shows the type of object.

Creator Shows the database user who created the Java class.

JAR file Shows the name of the JAR file containing the Java class. Java classes do not have to be contained in a JAR file.

Date created Shows the date the JAR file was created.

Date modified Shows the date the JAR file was last modified.

Comment Provides a place for you to type a text description of the Java class. For example, you could use this area to describe the Java Class’s purpose in the system.

Update Now Displays the Update Java Class dialog, which lets you update the Java class.

☞ For more information about updating Java classes, see [“Updating classes and Jars” \[ASA Programming Guide, page 91\]](#).

Message Type property sheet

The Message Type property sheet consists of two tabs: General and SQL Remote Users.

Message Type property sheet: General tab

The General tab of the Message Type property sheet has the following

components:

Name Shows the name of the message type.

Type Shows the type of object.

Publisher address Provides a place for you to type the address of the [publisher](#). Each [remote database](#) sends a [replication message](#) back to the [consolidated database](#) at the address.

Comment Provides a place for you to type a text description of the message type. For example, you could use this area to describe the message type's purpose in the system.

See also

◆ [“Using message types”](#) [*SQL Remote User's Guide*, page 210]

Message Type property sheet: SQL Remote Users tab

The SQL Remote Users tab of the Message Type property sheet has the following components:

Remote Users list Lists all the remote users that are currently using the [message type](#) by name, address, and comment.

Properties Displays the property sheet for the remote user selected in the Remote Users list.

See also

◆ [“Using message types”](#) [*SQL Remote User's Guide*, page 210]

MobiLink User property sheet

The MobiLink User property sheet consists of three tabs: General, Connection, and Extended Options.

MobiLink User property sheet: General tab

The General tab of the MobiLink User property sheet has the following components:

Name Shows the name of the MobiLink user.

Type Shows the type of object.

See also

◆ [“About MobiLink users”](#) [*MobiLink Clients*, page 10]

MobiLink User property sheet: Connection tab

The Connection tab of the MobiLink User property sheet has the following components:

Protocol Specify the communication protocol to use for synchronization. TCP/IP is used by default.

The settings you can specify on the Connection tab depend on the communication protocol you are using. Any additional parameters, such as `buffer_size`, can be set in the Advanced field.

☞ For a complete list of parameters supported by each of the protocols, see “[CREATE SYNCHRONIZATION USER statement \[MobiLink\]](#)” [*ASA SQL Reference*, page 404] or “[CommunicationType \(ctp\) extended option](#)” [*MobiLink Clients*, page 111].

- ◆ **TCP/IP** Select this option to use the TCP/IP protocol for synchronization. TCP/IP supports both elliptic-curve (formerly Certicom) and RSA encryption.
- ◆ **HTTP** Select this option to use the HTTP protocol for synchronization. HTTP supports both elliptic-curve (formerly Certicom) and RSA encryption.
- ◆ **HTTPS** Select this option to use the HTTPS protocol for synchronization. You can only use RSA encryption with the HTTPS protocol.
- ◆ **HTTPS FIPS** Select this option to use the HTTPS_FIPS protocol for synchronization.
- ◆ **ActiveSync** Select this option to use ActiveSync to exchange data with the MobiLink provider for ActiveSync, which resides on the desktop machine. The ActiveSync parameters describe the communications between the MobiLink provider for ActiveSync and the MobiLink synchronization server.

☞ For more information, see “[ActiveSync provider installation utility](#)” [*MobiLink Clients*, page 28].

Host The IP number or host name of the machine on which the MobiLink synchronization server is running. The default value is `localhost`. You can use `localhost` if the synchronization server is running on the same machine as the client.

For Windows CE, the default value is the value of `ipaddr` in the registry folder `Comm\Tcpip\Hosts\ppp_peer`. This allows a Windows CE device to connect to a MobiLink synchronization server executing on the desktop machine where the Windows CE device’s cradle is connected.

For the Palm Computing Platform, the default value of `localhost` refers to the device. It is recommended that you specify an explicit host name or IP address.

◆ **Port** The MobiLink synchronization server communicates over a specific port. The default port number is **2439** for TCP/IP, **80** for HTTP, and **443** for HTTPS. If you choose a different value, you must configure your MobiLink synchronization server to listen on the port you specify.

Proxy host Type the host name or IP address of the proxy server. The default value is **localhost**. This option is only available for HTTP and HTTPS synchronization.

◆ **Proxy port** Type the port number of the proxy server. The default value is **80** for HTTP and **443** for HTTPS. This option is only available for HTTP and HTTPS synchronization.

URL suffix Type the suffix to add to the URL on the first line of each HTTP request. The default value is **MobiLink**. This option is only available for HTTP and HTTPS synchronization.

When synchronizing through a proxy server, the suffix may be necessary in order to find the MobiLink synchronization server.

◆ **HTTP Version** Type the value specifying the version of HTTP to use for synchronization. You have a choice of 1.0 or 1.1. The default value is **1.1**.

Automatic connection The following options allow MobiLink clients running on Pocket PC 2002 or Windows desktop computers to connect through dial-up network connections.

When used with scheduling, your remote device can synchronize unattended. When used without scheduling, you can run dbmsync without manually dialing a connection.

☞ For more information about scheduling, see “[Scheduling synchronization](#)” [*MobiLink Clients*, page 88].

Network name Specify the network name so that you can use MobiLink’s auto-dial feature. This allows you to connect from a Pocket PC 2002 or Windows desktop computer without manually dialing. The name should be the network name that you have specified in the dropdown list in Settings ► Connections ► Connections (Pocket PC) or Network & Dialup Connections (Windows).

Network connect timeout When you specify a network name, you can optionally specify a timeout after which the dial-up fails. This feature applies only to Pocket PC 2002. (On Windows, you can control this feature by configuring the connection profile.) The default is **120** seconds.

Leave open When you supply a network name, you can optionally specify whether the connection should be left open (1) or closed (0) after synchronization finishes. By default, the connection is closed.

Security These options allow you to use a cipher suite to encrypt all communication through this connection. You can provide information about the certificate used to authenticate the server in the fields below for both the elliptic-curve and RSA ciphers.

Enable Certicom security Select this option to encrypt all communication through this connection. You can use the elliptic-curve or RSA cipher. By default, elliptic curves are used.

Separately licensable option required

Transport-layer security requires that you obtain the separately-licensable SQL Anywhere Studio security option and is subject to export regulations.

☞ To order this component, see [“Separately-licensable components”](#) [*Introducing SQL Anywhere Studio*, page 5].

☞ For more information about security, see [“MobiLink Transport-Layer Security”](#) [*MobiLink Administration Guide*, page 165].

- ◆ **Elliptic curves** Uses the elliptic-curve cipher to encrypt connections. You can use this cipher to encrypt TCP/IP and HTTP connections. This was formerly called Certicom encryption.
- ◆ **RSA** Uses the RSA cipher to encrypt all connections. You can use this cipher to encrypt TCP/IP, HTTP, and HTTPS connections.
- ◆ **RSA FIPS** Uses the RSA FIPS cipher to encrypt all connection. You can use this cipher to encrypt communications over the TCP/IP and HTTPS FIPS protocols.
 - **Certificate company** Type the name of the certificate authority or organization that issued the certificate. The server’s and the client’s values must match.
 - **Certificate unit** Type the certificate unit. This is also called the organizational unit. The server’s and the client’s values must match.
 - **Certificate name** Type the certificate’s common name. The server’s and the client’s values must match.
 - **Trusted certificates** Type the name of the certificate file the client uses to authenticate the server.

Advanced Type any additional connection parameters in this field, entering them in the form *parameter=value*, with multiple parameters separated by semicolons. For example, to set the maximum body size for a fixed content length message, and to instruct the client to attempt to use the same TCP/IP connection for all HTTP requests in a synchronization, you would enter the following in the Advanced field:


```
buffer_size=58000;persistent=TRUE
```

☞ For a complete list of connection parameters you can enter in this field, see [“CREATE SYNCHRONIZATION USER statement \[MobiLink\]” \[ASA SQL Reference, page 404\]](#).

Note

You can set connection parameters for synchronization in several ways.

☞ For information about how dbmlsync resolves conflicting options, see [“Priority order for extended options and connection parameters” \[MobiLink Clients, page 73\]](#).

If a field is blank on the Connection tab of the MobiLink User property sheet, the MobiLink user may be inheriting the connection parameter setting from the synchronization subscription. You should only supply connection parameters on the Connection tab of the MobiLink User property sheet if you want to override the publication’s settings.

See also

- ◆ [“CREATE SYNCHRONIZATION USER statement \[MobiLink\]” \[ASA SQL Reference, page 404\]](#)
- ◆ [“ALTER SYNCHRONIZATION USER statement \[MobiLink\]” \[ASA SQL Reference, page 292\]](#)
- ◆ [“dbmlsync extended options” \[MobiLink Clients, page 105\]](#)
- ◆ [“-eu option” \[MobiLink Clients, page 140\]](#)
- ◆ [“CommunicationAddress \(adr\) extended option” \[MobiLink Clients, page 106\]](#)

MobiLink User property sheet: Extended Options tab

The Extended Options tab of the MobiLink User property sheet has the following components:

This MobiLink user has the following extended options Lists the extended options and the values set for the MobiLink user. Click the Value field beside the option name to set the value for the MobiLink user.

The table below lists all the available extended options for synchronization.

☞ For more information about these options, see [“dbmlsync extended options” \[MobiLink Clients, page 105\]](#).

Extended option	Default	Description
“ConflictRetries (cr) extended option” [MobiLink Clients, page 111]	-1 (continue indefinitely)	Specifies the number of retries if the download fails because of conflicts.

Extended option	Default	Description
“ContinueDownload (cd) extended option” [<i>MobiLink Clients</i> , page 112]	OFF	Specifies restartable downloads.
“DisablePolling (p) extended option” [<i>MobiLink Clients</i> , page 113]	OFF	Disables automatic logscan polling.
“DownloadBufferSize (dbs) extended option” [<i>MobiLink Clients</i> , page 114]	32 K on Windows CE, 1 M on all other operating systems.	Specifies the size of the download buffer. By default, units of bytes are used. You can use the suffix k or m to specify units of kilobytes or megabytes, respectively.
“DownloadOnly (ds) extended option” [<i>MobiLink Clients</i> , page 115]	OFF	Specifies that synchronization should be download-only.
“DownloadReadSize (drs) extended option” [<i>MobiLink Clients</i> , page 116]	32 K	For restartable downloads, specifies the maximum amount of data that may need to be resent after a communications failure.
“ErrorLogSendLimit (el) extended option” [<i>MobiLink Clients</i> , page 117]	32 K	Specifies how much of the remote log file dbmlsync should send to the server when synchronization occurs. By default, units of bytes are used. You can use the suffix k or m to specify units of kilobytes or megabytes, respectively. If you don’t want to send any dbmlsync output log messages, a zero value should be set for this extended option.
“FireTriggers (ft) extended option” [<i>MobiLink Clients</i> , page 118]	ON	Specifies that triggers should be fired on the remote database when the download is applied.

Extended option	Default	Description
“HoverRescanThreshold (hrt) extended option” [<i>MobiLink Clients</i> , page 119]	1 M	When you are using scheduling, this limits the amount of discarded memory that is allowed to accumulate before a rescan is performed. By default, units of bytes are used. You can use the suffix k or m to specify units of kilobytes or megabytes, respectively.
“IgnoreHookErrors (eh) extended option” [<i>MobiLink Clients</i> , page 120]	OFF	Specifies that errors that occur in hook functions should be ignored.
“IgnoreScheduling (isc) extended option” [<i>MobiLink Clients</i> , page 120]	OFF	Specifies that scheduling settings should be ignored.
“Increment (inc) extended option” [<i>MobiLink Clients</i> , page 121]	(infinite)	Controls the size of incremental uploads. By default, units of bytes are used. You can use the suffix k or m to specify units of kilobytes or megabytes, respectively.
“LockTables (lt) extended option” [<i>MobiLink Clients</i> , page 122]	ON	Specifies that articles (tables or parts of tables in the publications being synchronized) should be locked before synchronizing.
“Memory (mem) extended option” [<i>MobiLink Clients</i> , page 123]	1 M	Specifies a cache size. By default, units of bytes are used. You can use the suffix k or m to specify units of kilobytes or megabytes, respectively.
“MirrorLogDirectory (mld) extended option” [<i>MobiLink Clients</i> , page 124]	(none)	Specifies the location of old mirror log files so that they can be deleted.

Extended option	Default	Description
“MobiLinkPwd (mp) extended option” [<i>MobiLink Clients</i> , page 124]	NULL	Specifies the MobiLink password.
“NewMobiLinkPwd (mn) extended option” [<i>MobiLink Clients</i> , page 125]	NULL	Specifies a new MobiLink password.
“OfflineDirectory (dir) extended option” [<i>MobiLink Clients</i> , page 126]	NULL	Specifies the path containing offline transaction logs.
“PollingPeriod (pp) extended option” [<i>MobiLink Clients</i> , page 126]	1 minute	Specifies the logscan polling period. By default, units of minutes are used. You can use the suffix s, m, h, or d to specify units of seconds, minutes, hours, or days, respectively.
“Schedule (sch) extended option” [<i>MobiLink Clients</i> , page 127]	No schedule	Specifies a schedule for synchronization.
“ScriptVersion (sv) extended option” [<i>MobiLink Clients</i> , page 129]	DEFAULT	Specifies a script version.
“SendColumnNames (scn) extended option” [<i>MobiLink Clients</i> , page 130]	OFF	Specifies that column names should be sent in the upload.
“SendDownloadACK (sa) extended option” [<i>MobiLink Clients</i> , page 131]	OFF	Specifies that a download acknowledgement should be sent from the client to the server.
“SendTriggers (st) extended option” [<i>MobiLink Clients</i> , page 132]	OFF	Specifies that trigger actions should be sent on upload.
“TableOrder (tor) extended option” [<i>MobiLink Clients</i> , page 132]	(none)	Specifies the order of tables in the upload stream.

Extended option	Default	Description
“UploadOnly (uo) extended option” [<i>MobiLink Clients</i> , page 133]	OFF	Specifies that synchronization should only include an upload.
“Verbose (v) extended option” [<i>MobiLink Clients</i> , page 134]	OFF	Specifies full verbosity. This option is identical to dbmlsync -v+ .
“VerboseHooks (vs) extended option” [<i>MobiLink Clients</i> , page 135]	OFF	Specifies that messages related to hook scripts should be logged. This option is identical to dbmlsync -vs .
“VerboseMin (vm) extended option” [<i>MobiLink Clients</i> , page 135]	OFF	Specifies that a small amount of information should be logged. This option is identical to dbmlsync -v .
“VerboseOptions (vo) extended option” [<i>MobiLink Clients</i> , page 136]	OFF	Specifies that information should be logged about the command line options (including extended options) that you have specified. This option is identical to dbmlsync -vo .
“VerboseRowCounts (vn) extended option” [<i>MobiLink Clients</i> , page 137]	OFF	Specifies that the number of rows that are uploaded and downloaded should be logged. This option is identical to dbmlsync -vn .
“VerboseRowValues (vr) extended option” [<i>MobiLink Clients</i> , page 138]	OFF	Specifies that the values of rows that are uploaded and downloaded should be logged. This option is identical to dbmlsync -vr .

Extended option	Default	Description
“VerboseUpload (vu) extended option” [<i>MobiLink Clients</i> , page 138]	OFF	Specifies that information about the upload stream should be logged. This option is identical to dbmlsync -vu .

Note

You can set connection parameters for synchronization in several ways.

☞ For information about how dbmlsync resolves conflicting options, see “Priority order for extended options and connection parameters” [*MobiLink Clients*, page 73].

Parameter property sheet

The Parameter property sheet consists of one tab: General. In most cases, the term procedure refers to both user-defined procedures *and* user-defined functions.

Parameter property sheet: General tab

The General tab of the Parameter property sheet has the following components:

Name Shows the name of the selected parameter.

Type Shows the type of object.

Procedure Shows the name of the procedure the parameter belongs to, with the name of the procedure’s owner in parenthesis.

Data type Shows the data type of the parameter.

☞ For a list of valid data types, see “SQL Data Types” [*ASA SQL Reference*, page 53].

Parameter type Shows the type of parameter. The parameter has one of the following types:

- ◆ **Variable** A normal procedure parameter.
- ◆ **Result** A column in a result set returned by the procedure.
- ◆ **SQLSTATE** The special SQLSTATE output parameter. This parameter is an OUT parameter that outputs the SQLSTATE value when the procedure ends.

☞ For more information about the SQLSTATE parameter, see [“CREATE PROCEDURE statement” \[ASA SQL Reference, page 373\]](#).

- ◆ **SQLCODE** The special SQLCODE output parameter. This parameter is an OUT parameter that outputs the SQLCODE value when the procedure ends.

☞ For more information about the SQLCODE parameter, see [“CREATE PROCEDURE statement” \[ASA SQL Reference, page 373\]](#).

- ◆ **Return** The return value. This parameter type only applies to functions.

Mode Shows the mode of the parameter. The mode has one of the following values:

- ◆ **In** The parameter is an expression that provides a value to the function.
- ◆ **Out** The parameter is a variable that could be given a value by the function.
- ◆ **Inout** The parameter is a variable that provides a value to the function, and could be given a new value by the function.

See also

- ◆ [“CREATE PROCEDURE statement” \[ASA SQL Reference, page 373\]](#)

Procedure property sheet

The Procedure property sheet consists of three tabs: General, Parameters, and Permissions. In most cases, the term procedure refers to both user-defined procedures *and* user-defined functions.

Procedure property sheet: General tab

The General tab of the Procedure property sheet has the following components:

Name Shows the name of the procedure.

Type Shows the type of object.

Owner Shows the name of the database user who created and owns the procedure.

Dialect Shows the SQL dialect in which the code was last saved. The dialect is either Watcom-SQL or Transact-SQL.

Comment Provides a place for you to type a description of the procedure. For example, you could use this area to describe the procedure’s purpose in the system.

See also

- ◆ [“CREATE PROCEDURE statement” \[ASA SQL Reference, page 373\]](#)

Procedure property sheet: Parameters tab

The Parameters tab of the Procedure property sheet has the following components:

Parameters list Displays the name, data type, parameter type, and mode of the procedure's parameters. The mode has one of the following values:

- ◆ **IN** The parameter is an expression that provides a value to the procedure.
- ◆ **OUT** The parameter is a variable that could be given a value by the procedure.
- ◆ **INOUT** The parameter is a variable that provides a value to the procedure, and could be given a new value by the procedure.

See also

- ◆ [“Declaring parameters for procedures”](#) [*ASA SQL User's Guide*, page 682]
- ◆ [“Using Procedures, Triggers, and Batches”](#) [*ASA SQL User's Guide*, page 655]
- ◆ [“CREATE PROCEDURE statement”](#) [*ASA SQL Reference*, page 373]

Procedure property sheet: Permissions tab

The Permissions tab of the Procedure property sheet has the following components:

Users list Lists the users who have permissions on the procedure. If you want to add users to the list, click Grant. To remove permissions from a user, select the user and click Revoke. You can select multiple users by holding Shift while you click.

Click the Execute field beside each user to grant or revoke permissions.

- ◆ **Grant** Displays the Grant Permission dialog, which lets you grant permissions for the procedure to other users or groups.
- ◆ **Revoke** Revokes permissions for the procedure from the user or group and removes them from the Users list.

See also

- ◆ [“Granting permissions on procedures”](#) [*ASA Database Administration Guide*, page 438]
- ◆ [“CREATE PROCEDURE statement”](#) [*ASA SQL Reference*, page 373]

Proxy Table property sheet

The Proxy Table property sheet consists of four tabs: General, Columns, Permissions, and Miscellaneous.

See also ♦ [“Working with proxy tables” \[ASA SQL User’s Guide, page 614\]](#)

Proxy Table property sheet: General tab

The General tab of the Proxy Table property sheet has the following components:

Name Shows the name of the proxy table. You cannot change the name of the proxy table.

Type Shows the type of object.

Owner Shows the name of the database user who created and owns the proxy table.

Remote location Shows the name of the remote server that contains the remote table, the remote database, the remote database user who owns the remote table, and the name of the remote table the proxy table is based on.

Columns Shows the primary key columns for the proxy table.

Comment Provides a place for you to type a text description of the proxy table. For example, you could use this area to describe the proxy table’s purpose in the system.

See also ♦ [“Working with proxy tables” \[ASA SQL User’s Guide, page 614\]](#)

Proxy Table property sheet: Columns tab

The Columns tab of the Proxy Table property sheet has the following components:

Columns list Lists all the columns in the proxy table, as well as their type and comments. You can double-click a column to open the Column Details dialog.

Details Displays the Column Details dialog, which shows a summary of the properties for the selected column.

See also ♦ [“Working with proxy tables” \[ASA SQL User’s Guide, page 614\]](#)

Proxy Table property sheet: Permissions tab

The Permissions tab of the Proxy Table property sheet has the following components:

Users list Lists the users who have permissions on the proxy table. If you want to add users to the list, click Grant. To remove permissions from a user, select the user and click Revoke. You can select multiple users by holding Shift while you click.

To grant or revoke permissions, click the fields beside each user. Double-clicking (so that a check mark and two + signs appear) gives the user grant options.

- ◆ **Grant** Displays the Grant Permission dialog, which lets you grant permissions for the proxy table to other users or groups.
- ◆ **Revoke** Revokes permissions for the proxy table from the user or group and removes them from the Users list.

Select You must select a user from the Users list to enable this option. Shows whether the Select permissions for the user apply to all columns or a subset of columns. Click Change to open the Column Permissions dialog where you can grant Select permissions for a subset of columns.

Update You must select a user from the Users list to enable this option. Shows whether the user's Update permissions apply to all columns or a subset of columns. Click Change to open the Column Permissions dialog where you can grant Update permissions for a subset of columns.

References You must select a user from the Users list to enable this option. Shows whether the Reference permissions for the user apply to all columns or a subset of columns. Click Change to open the Column Permissions dialog where you can grant Reference permissions for a subset of columns.

See also

- ◆ [“Working with proxy tables” \[ASA SQL User's Guide, page 614\]](#)

Proxy Table property sheet: Miscellaneous tab

The Miscellaneous tab of the Proxy Table property sheet has the following components:

Maximum table width Shows the number of bytes required for each row in the proxy table. The number is calculated from the length of the string columns, the precision of numeric columns, and the number of bytes of storage for all other data types. If the proxy table includes long binary or long VARCHAR columns, their arbitrary widths are not included, so the row width can only be approximated.

Number of rows This option is not available for proxy tables.

- ◆ **Calculate** The button is not enabled for proxy tables.

See also

- ◆ [“Working with proxy tables” \[ASA SQL User's Guide, page 614\]](#)

Publication property sheet

The Publication property sheet consists of four tabs: General, Articles,

Connection, and Extended Options.

Publication property sheet: General tab

The General tab of the Publication property has the following components:

Name Shows the name of the publication. You can change the publication's name in the text box.

Type Shows the type of object.

Owner Shows the name of the database user who created and owns the publication.

Comment Provides a place for you to type a text description of the publication. For example, you could use this area to describe the publication's purpose in the system.

See also

- ◆ [“CREATE PUBLICATION statement” \[ASA SQL Reference, page 385\]](#)

Publication property sheet: Articles tab

The Articles tab of the Publication property sheet has the following components:

- ◆ **Tables tab** The Tables tab lets you select tables to include in your client database.
- ◆ **Columns tab** The Columns tab lets you select columns from the tables to include in your client database.
- ◆ **WHERE Clauses tab** The WHERE Clauses tab lets you type a WHERE clause to restrict the rows included in the article.

Articles defined for SQL Remote and MobiLink publications can use a WHERE clause to define a subset of rows of a table to be included in an article. UltraLite applications can use row subsets by supplying a WHERE clause, with one exception: articles in UltraLite publications governing HotSync synchronization cannot use a WHERE clause.

- ◆ **SUBSCRIBE BY Restrictions tab** The SUBSCRIBE BY Restrictions tab lets you type a SUBSCRIBE BY restriction to define a subset of rows to be included in the article. This tab only applies to SQL Remote articles.

Each tab is described in detail below.

See also

- ◆ [“CREATE PUBLICATION statement” \[ASA SQL Reference, page 385\]](#)
- ◆ [“Publishing only some rows using a WHERE clause” \[SQL Remote User's Guide, page 96\]](#)

Tables tab

The Tables tab lets you select tables and add them to the list of articles that are included in the client database.

Available Tables list Lists all the [base table](#) in the database you are currently connected to. To add a table to the Selected Tables list, select the table in the Matching Tables list, then click Add.

Selected Tables list Lists all the tables that are included in the article for the client database. If you want to remove a table from the Selected Tables list, select the table, then click Delete.

You can use the Table Pattern and Owner Pattern fields to limit the tables shown in the Matching Tables list, and so locate the tables you want to include.

- ◆ **Add** Adds the table selected in the Matching Tables list to the Selected Tables list so the table is included in the article.
- ◆ **Remove** Removes the selected table from the Selected Tables list so the table is not included in the article.

Columns tab

The Columns tab lets you select columns from tables and add them to the list of articles that are included in the client database.

Available columns list Lists the tables selected on the Tables tab. Double-click a table in the list to display its columns. To add a column to the Selected Columns list, select the table in the Available Columns list, then click Add.

Selected columns list Lists all the columns that are included in the article for the client database. If you want to remove a column from the Selected Columns list to remove the column from the article, select the column, then click Delete.

- ◆ **Add** Adds the column selected in the Available Columns list to the Selected Columns list so it is included in your client database articles.
- ◆ **Remove** Removes the column from the Selected Columns list so it is not included in the article.

WHERE Clauses tab

Articles defined for SQL Remote and MobiLink publications can use a WHERE clause to define a subset of rows of a table to be included in an article. UltraLite applications can use row subsets by supplying a WHERE clause, with one exception: articles in UltraLite publications governing HotSync synchronization cannot use a WHERE clause.

The WHERE Clauses tab lets you supply a WHERE clause to restrict the rows that are included in the client database.

Articles list Select a table from the list of tables included in the article.

The selected article has the following WHERE clause In the text box, type the WHERE clause for the table to restrict the rows that are included in the article.

☞ For more information, see “Publishing only some rows using a WHERE clause” [*SQL Remote User’s Guide*, page 96].

See also

- ◆ “The WHERE clause: specifying rows” [*ASA SQL User’s Guide*, page 225]

SUBSCRIBE BY
Restrictions tab

This tab only applies to SQL Remote articles.

The SUBSCRIBE BY Restrictions tab lets you define a subset of rows of a table for inclusion in the article.

Articles list Select a table from the list of tables included in the article.

The selected article has the following SUBSCRIBE BY restriction You can choose one of the following options for the SUBSCRIBE BY restriction for the article:

- ◆ **None** Select this option if the article does not have a SUBSCRIBE BY restriction.
- ◆ **Column** Select this option if you want to include a specific column in the article.
- ◆ **Expression** In the text box, type a subscription expression to include a different set of rows in different subscriptions to publications containing the article.

See also

- ◆ “Publishing only some rows using a subscription expression” [*SQL Remote User’s Guide*, page 97]

Publication property sheet: Connection tab

The Connection tab of the Publication property sheet has the following components:

Protocol Specify the communication protocol to use for synchronization. TCP/IP is used by default.

The settings you can specify on the Connection tab depend on the communication protocol you are using. Any additional parameters, such as `buffer_size`, can be set in the Advanced field.

☞ For a complete list of parameters supported by each of the protocols, see “CREATE SYNCHRONIZATION USER statement [MobiLink]” [*ASA SQL Reference*, page 404] or “CommunicationType (ctp) extended option” [*MobiLink Clients*, page 111].

-
- ◆ **TCP/IP** Select this option to use the TCP/IP protocol for synchronization. TCP/IP supports both elliptic-curve (formerly Certicom) and RSA encryption.
 - ◆ **HTTP** Select this option to use the HTTP protocol for synchronization. HTTP supports both elliptic-curve (formerly Certicom) and RSA encryption.
 - ◆ **HTTPS** Select this option to use the HTTPS protocol for synchronization. You can only use RSA encryption with the HTTPS protocol.
 - ◆ **HTTPS FIPS** Select this option to use the HTTPS_FIPS protocol for synchronization.
 - ◆ **ActiveSync** Select this option to use ActiveSync to exchange data with the MobiLink provider for ActiveSync, which resides on the desktop machine. The ActiveSync parameters describe the communications between the MobiLink provider for ActiveSync and the MobiLink synchronization server.

☞ For more information, see “[ActiveSync provider installation utility](#)” [*MobiLink Clients*, page 28].

Host The IP number or host name of the machine on which the MobiLink synchronization server is running. The default value is **localhost**. You can use localhost if the synchronization server is running on the same machine as the client.

For Windows CE, the default value is the value of *ipaddr* in the registry folder *Comm\Tcpip\Hosts\ppp_peer*. This allows a Windows CE device to connect to a MobiLink synchronization server executing on the desktop machine where the Windows CE device’s cradle is connected.

For the Palm Computing Platform, the default value of localhost refers to the device. It is recommended that you specify an explicit host name or IP address.

- ◆ **Port** The MobiLink synchronization server communicates over a specific port. The default port number is **2439** for TCP/IP, **80** for HTTP, and **443** for HTTPS. If you choose a different value, you must configure your MobiLink synchronization server to listen on the port you specify.

Proxy host Type the host name or IP address of the proxy server. The default value is **localhost**. This option is only available for HTTP and HTTPS synchronization.

◆ **Proxy port** Type the port number of the proxy server. The default value is **80** for HTTP and **443** for HTTPS. This option is only available for HTTP and HTTPS synchronization.

URL suffix Type the suffix to add to the URL on the first line of each HTTP request. The default value is **MobiLink**. This option is only available for HTTP and HTTPS synchronization.

When synchronizing through a proxy server, the suffix may be necessary in order to find the MobiLink synchronization server.

◆ **HTTP Version** Type the value specifying the version of HTTP to use for synchronization. You have a choice of 1.0 or 1.1. The default value is **1.1**.

Automatic connection The following options allow MobiLink clients running on Pocket PC 2002 or Windows desktop computers to connect through dial-up network connections.

When used with scheduling, your remote device can synchronize unattended. When used without scheduling, you can run dbmlsync without manually dialing a connection.

☞ For more information about scheduling, see “[Scheduling synchronization](#)” [*MobiLink Clients*, page 88].

◆ **Network name** Specify the network name so that you can use MobiLink’s auto-dial feature. This allows you to connect from a Pocket PC 2002 or Windows desktop computer without manually dialing. The name should be the network name that you have specified in the dropdown list in Settings ► Connections ► Connections (Pocket PC) or Network & Dialup Connections (Windows).

◆ **Network connect timeout** When you specify a network name, you can optionally specify a timeout after which the dial-up fails. This feature applies only to Pocket PC 2002. (On Windows, you can control this feature by configuring the connection profile.) The default is **120** seconds.

◆ **Leave open** When you supply a network name, you can optionally specify whether the connection should be left open (1) or closed (0) after synchronization finishes. By default, the connection is closed.

Enable Certicom security Select this option to encrypt all communication through this connection. You can use the elliptic-curve or RSA cipher. By default, elliptic curves are used.

Separately licensable option required

Transport-layer security requires that you obtain the separately-licensable SQL Anywhere Studio security option and is subject to export regulations.

☞ To order this component, see [“Separately-licensable components”](#) [*Introducing SQL Anywhere Studio*, page 5].

☞ For more information about security, see [“MobiLink Transport-Layer Security”](#) [*MobiLink Administration Guide*, page 165].

- ◆ **Elliptic curves** Uses the elliptic-curve cipher to encrypt connections. You can use this cipher to encrypt TCP/IP and HTTP connections. This was formerly called Certicom encryption.
- ◆ **RSA** Uses the RSA cipher to encrypt all connections. You can use this cipher to encrypt TCP/IP, HTTP, and HTTPS connections.
- ◆ **RSA FIPS** Uses the RSA FIPS cipher to encrypt all connection. You can use this cipher to encrypt communications over the TCP/IP and HTTPS FIPS protocols.
 - **Certificate company** Type the name of the certificate authority or organization that issued the certificate. The server’s and the client’s values must match.
 - **Certificate unit** Type the certificate unit. This is also called the organizational unit. The server’s and the client’s values must match.
 - **Certificate name** Type the certificate’s common name. The server’s and the client’s values must match.
 - **Trusted certificates** Type the name of the certificate file the client uses to authenticate the server.

Advanced Type any additional connection parameters in this field, entering them in the form *parameter=value*, with multiple parameters separated by semicolons. For example, to set the maximum body size for a fixed content length message, and to instruct the client to attempt to use the same TCP/IP connection for all HTTP requests in a synchronization, you would enter the following in the Advanced field:

```
buffer_size=58000;persistent=TRUE
```

☞ For a complete list of connection parameters you can enter in this field, see [“CREATE SYNCHRONIZATION USER statement \[MobiLink\]”](#) [*ASA SQL Reference*, page 404].

Notes

You can set connection parameters for synchronization in several ways.

☞ For information about how dbmlsync resolves conflicting options, see [“Priority order for extended options and connection parameters”](#) [*MobiLink Clients*, page 73].

If a field is blank on the Connection tab of the Publication property sheet, the publication may be inheriting the connection parameter setting from the synchronization subscription or the MobiLink user.

See also


- ◆ [“CREATE SYNCHRONIZATION USER statement \[MobiLink\]” \[ASA SQL Reference, page 404\]](#)
- ◆ [“ALTER SYNCHRONIZATION USER statement \[MobiLink\]” \[ASA SQL Reference, page 292\]](#)
- ◆ [“CREATE PUBLICATION statement” \[ASA SQL Reference, page 385\]](#)
- ◆ [“ALTER PUBLICATION statement” \[ASA SQL Reference, page 280\]](#)
- ◆ [“-x option” \[MobiLink Clients, page 151\]](#)
- ◆ [“CommunicationAddress \(adr\) extended option” \[MobiLink Clients, page 106\]](#)

Publication property sheet: Extended Options tab

The Extended Options tab of the Publication property sheet has the following components:

This publication has the following MobiLink extended options Lists the extended options and values set for the publication. Click the Value field beside the option name to set the value for the publication.

The table below lists all the available extended options for synchronization.

 For more information about these options, see [“dbmlsync extended options” \[MobiLink Clients, page 105\]](#).

Extended option	Default	Description
“ConflictRetries (cr) extended option” [MobiLink Clients, page 111]	-1 (continue indefinitely)	Specifies the number of retries if the download fails because of conflicts.
“ContinueDownload (cd) extended option” [MobiLink Clients, page 112]	OFF	Specifies restartable downloads.
“DisablePolling (p) extended option” [MobiLink Clients, page 113]	OFF	Disables automatic logscan polling.

Extended option	Default	Description
“DownloadBufferSize (dbs) extended option” [<i>MobiLink Clients</i> , page 114]	32 K on Windows CE, 1 M on all other operating systems.	Specifies the size of the download buffer. By default, units of bytes are used. You can use the suffix k or m to specify units of kilobytes or megabytes, respectively.
“DownloadOnly (ds) extended option” [<i>MobiLink Clients</i> , page 115]	OFF	Specifies that synchronization should be download-only.
“DownloadReadSize (drs) extended option” [<i>MobiLink Clients</i> , page 116]	32 K	For restartable downloads, specifies the maximum amount of data that may need to be resent after a communications failure.
“ErrorLogSendLimit (el) extended option” [<i>MobiLink Clients</i> , page 117]	32 K	Specifies how much of the remote log file dbmsync should send to the server when synchronization occurs. By default, units of bytes are used. You can use the suffix k or m to specify units of kilobytes or megabytes, respectively. If you don’t want to send any dbmsync output log messages, a zero value should be set for this extended option.
“FireTriggers (ft) extended option” [<i>MobiLink Clients</i> , page 118]	ON	Specifies that triggers should be fired on the remote database when the download is applied.

Extended option	Default	Description
“HoverRescanThreshold (hrt) extended option” [<i>MobiLink Clients</i> , page 119]	1 M	When you are using scheduling, this limits the amount of discarded memory that is allowed to accumulate before a rescan is performed. By default, units of bytes are used. You can use the suffix k or m to specify units of kilobytes or megabytes, respectively.
“IgnoreHookErrors (eh) extended option” [<i>MobiLink Clients</i> , page 120]	OFF	Specifies that errors that occur in hook functions should be ignored.
“IgnoreScheduling (isc) extended option” [<i>MobiLink Clients</i> , page 120]	OFF	Specifies that scheduling settings should be ignored.
“Increment (inc) extended option” [<i>MobiLink Clients</i> , page 121]	(infinite)	Controls the size of incremental uploads. By default, units of bytes are used. You can use the suffix k or m to specify units of kilobytes or megabytes, respectively.
“LockTables (lt) extended option” [<i>MobiLink Clients</i> , page 122]	ON	Specifies that articles (tables or parts of tables in the publications being synchronized) should be locked before synchronizing.
“Memory (mem) extended option” [<i>MobiLink Clients</i> , page 123]	1 M	Specifies a cache size. By default, units of bytes are used. You can use the suffix k or m to specify units of kilobytes or megabytes, respectively.
“MirrorLogDirectory (mld) extended option” [<i>MobiLink Clients</i> , page 124]	(none)	Specifies the location of old mirror log files so that they can be deleted.

Extended option	Default	Description
“MobiLinkPwd (mp) extended option” [<i>MobiLink Clients</i> , page 124]	NULL	Specifies the MobiLink password.
“NewMobiLinkPwd (mn) extended option” [<i>MobiLink Clients</i> , page 125]	NULL	Specifies a new MobiLink password.
“OfflineDirectory (dir) extended option” [<i>MobiLink Clients</i> , page 126]	NULL	Specifies the path containing offline transaction logs.
“PollingPeriod (pp) extended option” [<i>MobiLink Clients</i> , page 126]	1 minute	Specifies the logscan polling period. By default, units of minutes are used. You can use the suffix s, m, h, or d to specify units of seconds, minutes, hours, or days, respectively.
“Schedule (sch) extended option” [<i>MobiLink Clients</i> , page 127]	No schedule	Specifies a schedule for synchronization.
“ScriptVersion (sv) extended option” [<i>MobiLink Clients</i> , page 129]	DEFAULT	Specifies a script version.
“SendColumnNames (scn) extended option” [<i>MobiLink Clients</i> , page 130]	OFF	Specifies that column names should be sent in the upload.
“SendDownloadACK (sa) extended option” [<i>MobiLink Clients</i> , page 131]	OFF	Specifies that a download acknowledgement should be sent from the client to the server.
“SendTriggers (st) extended option” [<i>MobiLink Clients</i> , page 132]	OFF	Specifies that trigger actions should be sent on upload.
“TableOrder (tor) extended option” [<i>MobiLink Clients</i> , page 132]	(none)	Specifies the order of tables in the upload stream.

Extended option	Default	Description
“UploadOnly (uo) extended option” [<i>MobiLink Clients</i> , page 133]	OFF	Specifies that synchronization should only include an upload.
“Verbose (v) extended option” [<i>MobiLink Clients</i> , page 134]	OFF	Specifies full verbosity. This option is identical to dbmlsync -v+ .
“VerboseHooks (vs) extended option” [<i>MobiLink Clients</i> , page 135]	OFF	Specifies that messages related to hook scripts should be logged. This option is identical to dbmlsync -vs .
“VerboseMin (vm) extended option” [<i>MobiLink Clients</i> , page 135]	OFF	Specifies that a small amount of information should be logged. This option is identical to dbmlsync -v .
“VerboseOptions (vo) extended option” [<i>MobiLink Clients</i> , page 136]	OFF	Specifies that information should be logged about the command line options (including extended options) that you have specified. This option is identical to dbmlsync -vo .
“VerboseRowCounts (vn) extended option” [<i>MobiLink Clients</i> , page 137]	OFF	Specifies that the number of rows that are uploaded and downloaded should be logged. This option is identical to dbmlsync -vn .
“VerboseRowValues (vr) extended option” [<i>MobiLink Clients</i> , page 138]	OFF	Specifies that the values of rows that are uploaded and downloaded should be logged. This option is identical to dbmlsync -vr .

Extended option	Default	Description
“VerboseUpload (vu) extended option” [<i>MobiLink Clients</i> , page 138]	OFF	Specifies that information about the upload stream should be logged. This option is identical to dbmlsync -vu .

Note

You can set connection parameters for synchronization in several ways.

☞ For information about how dbmlsync resolves conflicting options, see “Priority order for extended options and connection parameters” [*MobiLink Clients*, page 73].

Publisher property sheet

The Publisher property sheet consists of three tabs: General, Authorities, and Permissions.

See also

- ◆ “Managing User IDs and Permissions” [*ASA Database Administration Guide*, page 427]
- ◆ “Granting and revoking remote permissions” [*ASA Database Administration Guide*, page 440]

Publisher property sheet: General tab

The General tab of the Publisher property sheet has the following components:

Name Shows the name of the publisher.

Type Shows the type of object.

Allowed to connect Select this option to allow the publisher to connect to the database. If the publisher is not allowed to connect, the password (if one was supplied) is removed from the account. If you later change the publisher to allow them to connect, you must supply a new password. Clearing this option disables the Password and Confirm Password options.

Users are almost always allowed to connect.

- ◆ **Password** Type the password for the publisher. For added security, the characters appear as asterisks.
- ◆ **Confirm password** Confirm the password that you typed in the Password text box by entering it again. The contents of the two fields must match exactly.

Comment Provides a place for you to type a text description of the publisher. For example, you could use this area to describe the publisher's purpose in the system.

See also

- ◆ [“Granting and revoking remote permissions” \[ASA Database Administration Guide, page 440\]](#)
- ◆ [“Managing User IDs and Permissions” \[ASA Database Administration Guide, page 427\]](#)

Publisher property sheet: Authorities tab

The Authorities tab of the Publisher property sheet has the following components:

DBA Select this option to grant DBA authority to the publisher; a user with DBA authority can fully administer the database.

Resource Select this option to grant resource authority to the publisher; a user with resource authority can create database objects.

Remote DBA Select this option to grant Remote DBA authority to the publisher. The SQL Remote Message Agent should be run using a user ID with this type of authority to ensure that actions can be carried out without creating security loopholes. The MobiLink client utility, dbmsync, also requires Remote DBA authority.

See also

- ◆ [“Granting and revoking remote permissions” \[ASA Database Administration Guide, page 440\]](#)
- ◆ [“Managing User IDs and Permissions” \[ASA Database Administration Guide, page 427\]](#)

Publisher property sheet: Permissions tab

The Permissions tab of the Publisher property sheet has the following components:

Permissions list Shows all tables the publisher has permissions on, as well as the user who owns each table. You can click the fields beside each user to grant or revoke permissions; double-clicking (so that a checkmark and two + signs appear) gives the user grant options for the permission.

Show Select what type of object appears in the Permissions list:

- ◆ **Tables** All tables the publisher has permissions on.
- ◆ **Views** All views the publisher has permissions on.
- ◆ **Procedures & functions** Displays all procedures and functions the publisher has permissions on. You can only grant Execute permissions

for procedures and functions.

See also

- ◆ “Granting and revoking remote permissions” [*ASA Database Administration Guide*, page 440]

Remote Procedure property sheet

The Remote Procedure property sheet consists of three tabs: General, Parameters, and Permissions.

Remote procedure property sheet: General tab

The General tab of the Remote Procedure property sheet has the following components:

Name Shows the name of the remote procedure.

Type Shows the type of object.

Owner Shows the name of the database user who created and owns the remote procedure.

Dialect Shows the SQL dialect in which the code was last saved. The dialect is either Watcom-SQL or Transact-SQL.

Remote server The remote database containing the procedure.

Comment Provides a place for you to type a description of the remote procedure. For example, you could use this area to describe the remote procedure’s purpose in the system.

Remote procedure property sheet: Parameters tab

The Parameters tab of the Remote Procedure property sheet has the following components:

Parameters list Displays the name, data type, parameter type, and mode of the remote procedure’s parameters. The mode has one of the following values:

- ◆ **IN** The parameter is an expression that provides a value to the procedure.
- ◆ **OUT** The parameter is a variable that could be given a value by the procedure.
- ◆ **INOUT** The parameter is a variable that provides a value to the procedure, and could be given a new value by the remote procedure.

See also

- ◆ “Using Procedures, Triggers, and Batches” [*ASA SQL User’s Guide*, page 655]
- ◆ “CREATE PROCEDURE statement” [*ASA SQL Reference*, page 373]
- ◆ “Declaring parameters for procedures” [*ASA SQL User’s Guide*, page 682]

Remote procedure property sheet: Permissions tab

The Permissions tab of the Remote Procedure property sheet has the following components:

Users list Lists the users who have permissions on the remote procedure. If you want to add users to the list, click Grant. To remove permissions from a user, select the user and click Revoke. You can select multiple users by holding Shift while you click.

Click the Execute field beside each user to grant or revoke permissions.

- ◆ **Grant** Displays the Grant Permission dialog, which lets you grant permissions for the remote procedure to other users or groups.
- ◆ **Revoke** Revokes permissions for the remote procedure from the user or group and removes them from the Users list.

See also

- ◆ “Granting permissions on procedures” [*ASA Database Administration Guide*, page 438]

Remote Server property sheet

The Remote Server property sheet consists of one tab: General.

See also

- ◆ “Working with remote servers” [*ASA SQL User’s Guide*, page 606]
- ◆ “Server property sheet” on page 87

Remote Server property sheet: General tab

The General tab of the Remote Server property sheet has the following components:

Name Shows the name of the remote server.

Type Shows the type of object.

Read-only Shows whether or not the remote server is read-only.

Server type Shows the class or software platform of the database server. You can select a different software platform from the dropdown list to change the server type.

The server type that you select restricts the types of connection you can choose from. For example, if you select Generic Server from the Server

Type dropdown list, you can only connect using ODBC.

Connection type Lets you choose between the [ODBC](#) and [JDBC](#) connection protocols.

◆ **Open database connectivity (ODBC)** Select this option to use the ODBC connection protocol. You can use ODBC with any of the servers listed in the Server Type dropdown list.

◆ **Java database connectivity (JDBC)** Select this option to use the JDBC connection protocol. You can use JDBC with the following server types: Sybase Adaptive Server Anywhere and Sybase Adaptive Server Enterprise. If your database is not Java-enabled, the Java Database Connectivity (JDBC) option is not enabled.

☞ For more information about ODBC and JDBC connection protocols, see [“JDBC overview”](#) [*ASA Programming Guide*, page 104] and [“Creating remote servers using Sybase Central”](#) [*ASA SQL User’s Guide*, page 607].

Connection Information Lets you specify startup connection parameters, such as the name and address of the server.

For ODBC data sources, type the name of the data source. For JDBC access, type a machine name or IP address and a port number in the form *hostname:portnumber*.

Test Connection Click this button to test whether the information provided in the remote server definition results in a proper connection.

See also

- ◆ [“CREATE SERVER statement”](#) [*ASA SQL Reference*, page 392]
- ◆ [“Working with remote servers”](#) [*ASA SQL User’s Guide*, page 606]

Remote User property sheet

The Remote User property sheet consists of four tabs: General, Authorities, Permissions, and SQL Remote.

See also

- ◆ [“Managing User IDs and Permissions”](#) [*ASA Database Administration Guide*, page 427]
- ◆ [“Granting and revoking remote permissions”](#) [*ASA Database Administration Guide*, page 440]

Remote User property sheet: General tab

The General tab of the Remote User property sheet has the following components:

Name Shows the name of the remote user.

Type Shows the type of object.

Allowed to connect Select this option to allow the remote user to connect to the database. If the remote user is not allowed to connect, the password (if one was supplied) is removed from the account. If you later change the remote user to allow them to connect, you must supply a new password. Clearing this option disables the Password and Confirm Password options.

Users are almost always allowed to connect.

- ◆ **Password** Type the password for the remote user. For added security, the characters appear as asterisks.
- ◆ **Confirm password** Confirm the password that you typed in the Password text box by entering it again. The contents of the two fields must match exactly.

Comment Provides a place for you to type a text description of the remote user. For example, you could use this area to describe the remote user's purpose in the system.

See also

- ◆ [“Granting and revoking remote permissions”](#) [*ASA Database Administration Guide*, page 440]
- ◆ [“Managing User IDs and Permissions”](#) [*ASA Database Administration Guide*, page 427]

Remote User property sheet: Authorities tab

The Authorities tab of the Remote User property sheet has the following components:

DBA Select this option to grant DBA authority to the remote user; a user with DBA authority can fully administer the database.

Resource Select this option to grant resource authority to the remote user; a user with resource authority can create database objects.

Remote DBA Select this option to grant Remote DBA authority to the remote user. The SQL Remote Message Agent should be run using a user ID with this type of authority to ensure that actions can be carried out without creating security loopholes. The MobiLink client utility, dbmsync, also requires Remote DBA authority.

See also

- ◆ [“Granting and revoking remote permissions”](#) [*ASA Database Administration Guide*, page 440]
- ◆ [“Managing User IDs and Permissions”](#) [*ASA Database Administration Guide*, page 427]

Remote User property sheet: Permissions tab

The Permissions tab of the Remote User property sheet has the following

components:

Permissions list Shows all tables the remote user has permissions on, as well as the user who owns each table. You can click the fields for each table to grant or revoke permissions; double-clicking (so that a checkmark and two + signs appear) gives the user grant options for the permission.

Show Select what type of object appears in the Permissions list:

- ◆ **Tables** All tables the remote user has permissions on.
- ◆ **Views** All views the remote user has permissions on.
- ◆ **Procedures & functions** All procedures and functions the remote user has permissions on. You can only grant Execute permissions for procedures and functions.
- ◆ **“Granting and revoking remote permissions”** [*ASA Database Administration Guide*, page 440]

See also

Remote User property sheet: SQL Remote tab

The SQL Remote tab of the Remote User property sheet has the following components:

Message type Lets you select a [message type](#) for communicating with the [publisher](#).

Address Provides a place for you to type the remote address of the remote user. The address is a string, according to the specified message type, to which the replication messages should be sent for the user.

☞ For information about what address to use with a specific message type, see [“Using message types”](#) [*SQL Remote User’s Guide*, page 210].

- ◆ **Send then close** Sets the [replication frequency](#) so that the publisher’s agent runs once, sends all pending messages to the remote group, and then shuts down. The means that the agent must be restarted each time the publisher wants to send messages.

In most replication setups, this option is not used for sending publications from the consolidated publisher to the remote group.

- ◆ **Send every** Sets the replication frequency so that the publisher’s agent runs continuously, sending messages to the remote group at the given periodic interval.
- ◆ **Send daily at** Sets the replication frequency so that the publisher’s agent runs continuously, sending messages to the remote group each day at the specified time.

- See also
- ◆ “Granting and revoking remote permissions” [*ASA Database Administration Guide*, page 440]
 - ◆ “CREATE SUBSCRIPTION statement [SQL Remote]” [*ASA SQL Reference*, page 400]

Server property sheet

The Server property sheet consists of three tabs: General, Extended Information, and Options.

Server property sheet: General tab

The General tab of the Server property sheet has the following components:

Name Shows the name of the server.

Type Shows the type of object.

Product Shows the server’s product type; for example, the product could be Sybase Adaptive Server Anywhere.

Version Shows the version number of the server.

Computer Shows the name of the computer on which the database server is running.

Operating system Shows the operating system that the server is currently running on.

Operating system version Shows the operating system version that the server is currently running on.

- See also
- ◆ “Server-level properties” [*ASA Database Administration Guide*, page 725]

Server property sheet: Extended Information tab

The Extended Information tab of the Server property sheet has the following components:

Database server properties list An extended list of server properties and their values. Click Refresh to update the values. You can also press F5 to refresh the server property values.

Refresh Click Refresh to update the values in the Server Properties list.

Description When you select a property from the list, a description of the property appears in the Description window.

- See also
- ◆ “Server-level properties” [*ASA Database Administration Guide*, page 725]

Server property sheet: Options tab

The database server options on this tab correspond to server options that can be reset while the server is running.

☞ For more information, see “[sa_server_option system procedure](#)” [*ASA SQL Reference*, page 830].

The Options tab of the Server property sheet has the following components:

Current time Displays the current time. Click Refresh to update the Current Time. You can also press F5 to update the current time.

Quitting time You can type a time when the database server is to shut down. Use the same format as the current time, which is as follows:

YYYY-MM-DD HH:NN:SS.SS

Disable new connections Select this option to prevent other users from connecting to the database. This may be useful for some maintenance operations.

Enable request logging Select this option to record requests that the server processes to the log file. This option is primarily for troubleshooting purposes. Selecting Enable Request Logging enables the options below.

- ◆ **Log all requests** All requests that the server processes are recorded to the log file.

- ◆ **Log SQL requests only** Limits the types of requests recorded to the log file.

☞ For a list of the SQL Statements that are logged when you select SQL Requests, see “[sa_server_option system procedure](#)” [*ASA SQL Reference*, page 830].

- **Log file name** When you select Enable Request Logging, you must provide a log file name. You can also click Browse to locate the file.

☞ For information about request logging, see “[-zr server option](#)” [*ASA Database Administration Guide*, page 168].

Remember the last statement executed on each connection Select this option to instruct the database server to capture the most recently-prepared SQL statement for each connection to a database on the server.

☞ For more information, see “[-zl server option](#)” [*ASA Database Administration Guide*, page 166].

See also

- ◆ “[Server-level properties](#)” [*ASA Database Administration Guide*, page 725]

Service property sheet

The Service property sheet consists of five tabs: General, Configuration, Account, Dependencies, and Polling.

See also

- ◆ “Managing services” [*ASA Database Administration Guide*, page 24]

Service property sheet: General tab

The General tab of the Service property sheet has the following components:

Name Shows the name of the service. A [service](#) runs a database server or other application with a set of options.

Type Shows the type of object.

Service type Shows the type of service, Network, Standalone, DBRemote, or MobiLink.

Status Shows whether service is started, stopped, or paused.

☞ For more information about the service status, see “[Starting, stopping, and pausing services](#)” [*ASA Database Administration Guide*, page 31].

Startup type You can select one of the following startup options for the service. The startup option is applied the next time you start Windows.

- ◆ **Automatic** Select this option to start the service automatically whenever the operating system starts.
- ◆ **Manual** Select this option to start the service manually. Only a user with Administrator permissions can start the service if it requires manual startup.
 - ☞ For information about Administrator permissions, see your Windows documentation.

- ◆ **Disabled** Select this option to disable the service so it does not start.

See also

- ◆ “Managing services” [*ASA Database Administration Guide*, page 24]
- ◆ “Understanding Windows services” [*ASA Database Administration Guide*, page 23]

Service property sheet: Configuration tab

The Configuration tab of the Service property sheet has the following components:

File name Provides a place for you to type the path of the executable file. For example, `f:\Sybase\ASA90\win32\dbeng9.exe`.

You can also click **Browse** to search for a file.

Parameters Type additional parameters (file names and options) for the executable file in the text box. You can use the same options for a service that you use for the executable.

For example to start a SQL Remote Message Agent service, connecting to the sample database as user ID DBA, type the following:

```
-c "uid=DBA;pwd=SQL;dbn=asademo"
```

See also

- ◆ “The Service Creation utility” [*ASA Database Administration Guide*, page 569]
- ◆ “The database server” [*ASA Database Administration Guide*, page 116]

Service property sheet: Account tab

The Account tab of the Service property sheet has the following components:

Local system account Select this option to run the service under your system’s local account.

- ◆ **Allow service to interact with desktop** This option is only available when you select Local System Account. Select this option if you want to display the server window by clicking an icon on your desktop.

Other account Select this option to run the service under an account other than the local account. You must choose a user ID from the dropdown list. Selecting this option enables the Password and Confirm Password fields.

- ◆ **Password** When you select Other Account, you must supply the appropriate password for the user ID. You must confirm the password in the Confirm Password text box.
- ◆ **Confirm password** Re-type the user ID’s password to confirm that it was entered correctly.

See also

- ◆ “Managing services” [*ASA Database Administration Guide*, page 24]
- ◆ “The Service Creation utility” [*ASA Database Administration Guide*, page 569]

Service property sheet: Dependencies tab

The Dependencies tab of the Service property sheet has the following components:

The service belongs to a service group Select this option if you want to assign the service to be a member of a service group.

- ◆ **Service group** Lets you specify which service group the service belongs to. To change which service group the service belongs to, click Change. The Set Service Group dialog appears, which lets you specify a service group for the service.

Services list Lists all the services and service groups that must be started before the service. The list also shows the type of service or service group.

To add services or service groups to this list, click Add Services or Add Service Groups, respectively. If you want to remove a service or service group from the Services list, select the service or service group, then click Remove. You can select multiple services or service groups by holding Shift while you click.

- ◆ **Add Services** Displays the [Add Service Dependencies dialog](#), which lets you view all services and select the ones you want to add to the Services list.
- ◆ **Add Service Groups** Displays the [Add Service Group Dependencies dialog](#), which lets you select the service groups that you want to add to the Services list.
- ◆ **Remove** Removes the service or service group from the Services list. The group or service no longer starts before the service.

See also

- ◆ [“Service dependencies” \[ASA Database Administration Guide, page 31\]](#)
- ◆ [“Managing services” \[ASA Database Administration Guide, page 24\]](#)
- ◆ [“Running more than one service” \[ASA Database Administration Guide, page 31\]](#)

Service property sheet: Polling tab

Settings on this tab apply to all services, not just the currently selected service.

The Polling tab of the Service property sheet has the following components:

Enable polling Select this option if you want Sybase Central to poll the services for changes to their states (started, stopped, paused, or removed).

- ◆ **Poll every** When you select Enable Polling, you must specify how often Sybase Central polls the service to check for status changes. The default interval is 10 seconds. The polling time you set in the window remains in effect for subsequent sessions until you change it explicitly.

See also

- ◆ [“Setting the service polling frequency” \[ASA Database Administration Guide, page 30\]](#)
- ◆ [“Managing services” \[ASA Database Administration Guide, page 24\]](#)

SQL Remote Subscription property sheet

The SQL Remote Subscription property sheet consists of two tabs: General and Advanced.

SQL Remote Subscription property sheet: General tab

The General tab of the SQL Remote Subscription property sheet has the following components:

Name Shows the name of the SQL Remote subscription.

Type Shows the type of object.

Publication Shows the publication the SQL Remote user is subscribed to.

Subscriber Shows the SQL Remote user who is subscribed to the publication.

Subscription value Shows the subscription value for the SQL Remote subscription. The subscription value is a string that is compared to the subscription expression of the publication. The subscriber receives all rows for which the subscription expression matches the subscription value.

SQL Remote Subscription property sheet: Advanced tab

The Advanced tab of the SQL Remote Subscription property sheet has the following components:

Start subscription Click Start Now to manually start subscriptions. However, it is recommended that you let the Extraction utility start subscriptions automatically.

Stop subscription Click Stop Now to stop a subscription that has been started.

Synchronize subscription Click Synchronize Now to synchronize subscriptions manually. However, it is recommended that you let the Extraction utility synchronize subscriptions automatically.

See also

◆ [“START SUBSCRIPTION statement \[SQL Remote\]” \[ASA SQL Reference, page 628\]](#)

Statistic property sheet

The Statistic property sheet consists of one tab: the General tab.

Statistic property sheet: General tab

The General tab of the Statistic property sheet has the following components:

Name Shows the name of the statistic.

Type Shows the type of object.

Description Provides a brief explanation of the statistic.

Graph this statistic in the Performance Monitor Select this option to add the statistic to the Performance Monitor. Clear the checkbox to remove the statistic from the Performance Monitor.

See also

- ◆ [“Monitoring and Improving Performance”](#) [*ASA SQL User’s Guide*, page 157]

Synchronization Subscription property sheet

The Synchronization Subscription property sheet consists of three tabs: General, Connection, and Extended Options.

Synchronization Subscription property sheet: General tab

The General tab of the Synchronization Subscription property sheet has the following components:

Name Shows the name of the synchronization subscription.

Type Shows the type of object.

Publication Shows the publication the MobiLink user is subscribed to.

Subscriber Shows the MobiLink user who is subscribed to the publication.

Last download time Shows the time of the last download.

Last upload time Shows the time of the last upload.

Generation number Shows the generation number for the synchronization subscription.

Generation numbers provide a mechanism for forcing remote databases to upload data before applying any more download files. A separate generation number is automatically maintained for each synchronization subscription on the database.

☞ For more information about generation numbers, see [“MobiLink generation numbers”](#) [*MobiLink Administration Guide*, page 93].

See also

- ◆ [“Publications and subscriptions”](#) [*SQL Remote User’s Guide*, page 11]

Synchronization Subscription property sheet: Connection tab

The Connection tab of the Synchronization Subscription property sheet has the following components:

Protocol Specify the communication protocol to use for synchronization. TCP/IP is used by default.

The settings you can specify on the Connection tab depend on the communication protocol you are using. Any additional parameters, such as `buffer_size`, can be set in the Advanced field.

☞ For a complete list of parameters supported by each of the protocols, see “CREATE SYNCHRONIZATION USER statement [MobiLink]” [ASA SQL Reference, page 404] or “CommunicationType (ctp) extended option” [MobiLink Clients, page 111].

- ◆ **TCP/IP** Select this option to use the TCP/IP protocol for synchronization. TCP/IP supports both elliptic-curve (formerly Certicom) and RSA encryption.
- ◆ **HTTP** Select this option to use the HTTP protocol for synchronization. HTTP supports both elliptic-curve (formerly Certicom) and RSA encryption.
- ◆ **HTTPS** Select this option to use the HTTPS protocol for synchronization. You can only use RSA encryption with the HTTPS protocol.
- ◆ **HTTPS FIPS** Select this option to use the HTTPS_FIPS protocol for synchronization.
- ◆ **ActiveSync** Select this option to use ActiveSync to exchange data with the MobiLink provider for ActiveSync, which resides on the desktop machine. The ActiveSync parameters describe the communications between the MobiLink provider for ActiveSync and the MobiLink synchronization server.

☞ For more information, see “ActiveSync provider installation utility” [MobiLink Clients, page 28].

Host The IP number or host name of the machine on which the MobiLink synchronization server is running. The default value is `localhost`. You can use `localhost` if the synchronization server is running on the same machine as the client.

For Windows CE, the default value is the value of `ipaddr` in the registry folder `Comm\Tcpip\Hosts\ppp_peer`. This allows a Windows CE device to

connect to a MobiLink synchronization server executing on the desktop machine where the Windows CE device's cradle is connected.

For the Palm Computing Platform, the default value of localhost refers to the device. It is recommended that you specify an explicit host name or IP address.

- ◆ **Port** The MobiLink synchronization server communicates over a specific port. The default port number is **2439** for TCP/IP, **80** for HTTP, and **443** for HTTPS. If you choose a different value, you must configure your MobiLink synchronization server to listen on the port you specify.

Proxy host Type the host name or IP address of the proxy server. The default value is **localhost**. This option is only available for HTTP and HTTPS synchronization.

- ◆ **Proxy port** Type the port number of the proxy server. The default value is **80** for HTTP and **443** for HTTPS. This option is only available for HTTP and HTTPS synchronization.

URL suffix Type the suffix to add to the URL on the first line of each HTTP request. The default value is **MobiLink**. This option is only available for HTTP and HTTPS synchronization.

When synchronizing through a proxy server, the suffix may be necessary in order to find the MobiLink synchronization server.

- ◆ **HTTP Version** Type the value specifying the version of HTTP to use for synchronization. You have a choice of 1.0 or 1.1. The default value is **1.1**.

Automatic connection The following options allow MobiLink clients running on Pocket PC 2002 or Windows desktop computers to connect through dial-up network connections.

When used with scheduling, your remote device can synchronize unattended. When used without scheduling, you can run dbmsync without manually dialing a connection.

☞ For more information about scheduling, see “[Scheduling synchronization](#)” [*MobiLink Clients*, page 88].

- ◆ **Network name** Specify the network name so that you can use MobiLink's auto-dial feature. This allows you to connect from a Pocket PC 2002 or Windows desktop computer without manually dialing. The name should be the network name that you have specified in the dropdown list in Settings ► Connections ► Connections (Pocket PC) or Network & Dialup Connections (Windows).

-
- ◆ **Network connect timeout** When you specify a network name, you can optionally specify a timeout after which the dial-up fails. This feature applies only to Pocket PC 2002. (On Windows, you can control this feature by configuring the connection profile.) The default is 120 seconds.
 - ◆ **Leave open** When you supply a network name, you can optionally specify whether the connection should be left open (1) or closed (0) after synchronization finishes. By default, the connection is closed.

Enable Certicom security Select this option to encrypt all communication through this connection. You can use the elliptic-curve or RSA cipher. By default, elliptic curves are used.

Separately licensable option required

Transport-layer security requires that you obtain the separately-licensable SQL Anywhere Studio security option and is subject to export regulations.

☞ To order this component, see “Separately-licensable components” [[Introducing SQL Anywhere Studio, page 5](#)].

☞ For more information about security, see “MobiLink Transport-Layer Security” [[MobiLink Administration Guide, page 165](#)].

- ◆ **Elliptic curves** Uses the elliptic-curve cipher to encrypt connections. You can use this cipher to encrypt TCP/IP and HTTP connections. This was formerly called Certicom encryption.
- ◆ **RSA** Uses the RSA cipher to encrypt all connections. You can use this cipher to encrypt TCP/IP, HTTP, and HTTPS connections.
- ◆ **RSA FIPS** Uses the RSA FIPS cipher to encrypt all connection. You can use this cipher to encrypt communications over the TCP/IP and HTTPS FIPS protocols.
 - **Certificate company** Type the name of the certificate authority or organization that issued the certificate. The server’s and the client’s values must match.
 - **Certificate unit** Type the certificate unit. This is also called the organizational unit. The server’s and the client’s values must match.
 - **Certificate name** Type the certificate’s common name. The server’s and the client’s values must match.
 - **Trusted certificates** Type the name of the certificate file the client uses to authenticate the server.

Advanced Type any additional connection parameters in this field, entering them in the form *parameter=value*, with multiple parameters separated by semicolons. For example, to set the maximum body size for a

fixed content length message, and to instruct the client to attempt to use the same TCP/IP connection for all HTTP requests in a synchronization, you would enter the following in the Advanced field:

```
buffer_size=58000;persistent=TRUE
```

☞ For a complete list of connection parameters you can enter in this field, see “CREATE SYNCHRONIZATION USER statement [MobiLink]” [ASA SQL Reference, page 404].

Note

You can set connection parameters for synchronization in several ways.

☞ For information about how dbmlsync resolves conflicting options, see “Priority order for extended options and connection parameters” [MobiLink Clients, page 73].

See also

- ◆ “CREATE SYNCHRONIZATION USER statement [MobiLink]” [ASA SQL Reference, page 404]
- ◆ “ALTER SYNCHRONIZATION USER statement [MobiLink]” [ASA SQL Reference, page 292]
- ◆ “-x option” [MobiLink Clients, page 151]
- ◆ “CommunicationAddress (adr) extended option” [MobiLink Clients, page 106]

Synchronization Subscription property sheet: Extended Options tab

The Extended Options tab of the Synchronization Subscription property sheet has the following components:

This subscription has the following extended options Lists the extended options and the values set for the MobiLink user. Click the Value field beside the option name to set the value for the MobiLink user.

The table below lists all the available extended options for synchronization.

☞ For more information about these options, see “dbmlsync extended options” [MobiLink Clients, page 105].

Extended option	Default	Description
“ConflictRetries (cr) extended option” [MobiLink Clients, page 111]	-1 (continue indefinitely)	Specifies the number of retries if the download fails because of conflicts.
“ContinueDownload (cd) extended option” [MobiLink Clients, page 112]	OFF	Specifies restartable downloads.

Extended option	Default	Description
“DisablePolling (p) extended option” [<i>MobiLink Clients</i> , page 113]	OFF	Disables automatic logscan polling.
“DownloadBufferSize (dbs) extended option” [<i>MobiLink Clients</i> , page 114]	32 K on Windows CE, 1 M on all other operating systems.	Specifies the size of the download buffer. By default, units of bytes are used. You can use the suffix k or m to specify units of kilobytes or megabytes, respectively.
“DownloadOnly (ds) extended option” [<i>MobiLink Clients</i> , page 115]	OFF	Specifies that synchronization should be download-only.
“DownloadReadSize (drs) extended option” [<i>MobiLink Clients</i> , page 116]	32 K	For restartable downloads, specifies the maximum amount of data that may need to be resent after a communications failure.
“ErrorLogSendLimit (el) extended option” [<i>MobiLink Clients</i> , page 117]	32 K	Specifies how much of the remote log file dbmlsync should send to the server when synchronization occurs. By default, units of bytes are used. You can use the suffix k or m to specify units of kilobytes or megabytes, respectively. If you don’t want to send any dbmlsync output log messages, a zero value should be set for this extended option.
“FireTriggers (ft) extended option” [<i>MobiLink Clients</i> , page 118]	ON	Specifies that triggers should be fired on the remote database when the download is applied.

Extended option	Default	Description
“HoverRescanThreshold (hrt) extended option” [<i>MobiLink Clients</i> , page 119]	1 M	When you are using scheduling, this limits the amount of discarded memory that is allowed to accumulate before a rescan is performed. By default, units of bytes are used. You can use the suffix k or m to specify units of kilobytes or megabytes, respectively.
“IgnoreHookErrors (eh) extended option” [<i>MobiLink Clients</i> , page 120]	OFF	Specifies that errors that occur in hook functions should be ignored.
“IgnoreScheduling (isc) extended option” [<i>MobiLink Clients</i> , page 120]	OFF	Specifies that scheduling settings should be ignored.
“Increment (inc) extended option” [<i>MobiLink Clients</i> , page 121]	(infinite)	Controls the size of incremental uploads. By default, units of bytes are used. You can use the suffix k or m to specify units of kilobytes or megabytes, respectively.
“LockTables (lt) extended option” [<i>MobiLink Clients</i> , page 122]	ON	Specifies that articles (tables or parts of tables in the publications being synchronized) should be locked before synchronizing.
“Memory (mem) extended option” [<i>MobiLink Clients</i> , page 123]	1 M	Specifies a cache size. By default, units of bytes are used. You can use the suffix k or m to specify units of kilobytes or megabytes, respectively.
“MirrorLogDirectory (mld) extended option” [<i>MobiLink Clients</i> , page 124]	(none)	Specifies the location of old mirror log files so that they can be deleted.

Extended option	Default	Description
“MobiLinkPwd (mp) extended option” [<i>MobiLink Clients</i> , page 124]	NULL	Specifies the MobiLink password.
“NewMobiLinkPwd (mn) extended option” [<i>MobiLink Clients</i> , page 125]	NULL	Specifies a new MobiLink password.
“OfflineDirectory (dir) extended option” [<i>MobiLink Clients</i> , page 126]	NULL	Specifies the path containing offline transaction logs.
“PollingPeriod (pp) extended option” [<i>MobiLink Clients</i> , page 126]	1 minute	Specifies the logscan polling period. By default, units of minutes are used. You can use the suffix s, m, h, or d to specify units of seconds, minutes, hours, or days, respectively.
“Schedule (sch) extended option” [<i>MobiLink Clients</i> , page 127]	No schedule	Specifies a schedule for synchronization.
“ScriptVersion (sv) extended option” [<i>MobiLink Clients</i> , page 129]	DEFAULT	Specifies a script version.
“SendColumnNames (scn) extended option” [<i>MobiLink Clients</i> , page 130]	OFF	Specifies that column names should be sent in the upload.
“SendDownloadACK (sa) extended option” [<i>MobiLink Clients</i> , page 131]	OFF	Specifies that a download acknowledgement should be sent from the client to the server.
“SendTriggers (st) extended option” [<i>MobiLink Clients</i> , page 132]	OFF	Specifies that trigger actions should be sent on upload.
“TableOrder (tor) extended option” [<i>MobiLink Clients</i> , page 132]	(none)	Specifies the order of tables in the upload stream.

Extended option	Default	Description
“UploadOnly (uo) extended option” [<i>MobiLink Clients</i> , page 133]	OFF	Specifies that synchronization should only include an upload.
“Verbose (v) extended option” [<i>MobiLink Clients</i> , page 134]	OFF	Specifies full verbosity. This option is identical to dbmlsync -v+ .
“VerboseHooks (vs) extended option” [<i>MobiLink Clients</i> , page 135]	OFF	Specifies that messages related to hook scripts should be logged. This option is identical to dbmlsync -vs .
“VerboseMin (vm) extended option” [<i>MobiLink Clients</i> , page 135]	OFF	Specifies that a small amount of information should be logged. This option is identical to dbmlsync -v .
“VerboseOptions (vo) extended option” [<i>MobiLink Clients</i> , page 136]	OFF	Specifies that information should be logged about the command line options (including extended options) that you have specified. This option is identical to dbmlsync -vo .
“VerboseRowCounts (vn) extended option” [<i>MobiLink Clients</i> , page 137]	OFF	Specifies that the number of rows that are uploaded and downloaded should be logged. This option is identical to dbmlsync -vn .
“VerboseRowValues (vr) extended option” [<i>MobiLink Clients</i> , page 138]	OFF	Specifies that the values of rows that are uploaded and downloaded should be logged. This option is identical to dbmlsync -vr .

Extended option	Default	Description
“VerboseUpload (vu) extended option” [<i>MobiLink Clients</i> , page 138]	OFF	Specifies that information about the upload stream should be logged. This option is identical to dbmsync -vu .

Note

You can set connection parameters for synchronization in several ways.

☞ For information about how dbmsync resolves conflicting options, see “Priority order for extended options and connection parameters” [*MobiLink Clients*, page 73].

System Trigger property sheet

The System Trigger property sheet consists of one tab: General.

System Trigger property sheet: General tab

The General tab of the System Trigger property sheet has the following components:

Name Shows the name of the system trigger.

Type Shows the type of object.

Foreign table Shows the table containing the foreign key.

Primary table Shows the table containing the primary key in the foreign key relationship.

Event Shows which kind of event, Insert, Delete, Update, or Update Columns, causes the system trigger to execute.

Timing Shows whether the trigger executes before or after the event.

Action Shows which of the available referential integrity actions is used for updates and deletes of the primary key:

- ◆ **Restrict** Generates an error and prevents the modification if an attempt to modify a referenced primary key value occurs. This is the default referential integrity action.
- ◆ **Set null** Sets all foreign keys that reference the modified primary key to NULL.
- ◆ **Set default** Sets all foreign keys that reference the modified primary

key to the default value for that column (as specified in the table definition).

- ◆ **Cascade** When used with ON UPDATE, this action updates all foreign keys that reference the updated primary key to the new value. When used with ON DELETE, this action deletes all rows containing foreign keys that reference the deleted primary key.

See also

- ◆ [“Referential integrity actions”](#) [*ASA SQL User’s Guide*, page 97]

Table property sheet

The Table property sheet consists of four tabs: General, Columns, Permissions, and Miscellaneous.

See also

- ◆ [“Working with tables”](#) [*ASA SQL User’s Guide*, page 40]

Table property sheet: General tab

The General tab of the Table property sheet has the following components:

Name Shows the name of the table.

Type Shows the type of object.

Owner Shows the database user who created and owns the table.

Dbospace Shows the database file (or [dbospace](#)) where the table is located.

Name Shows the name of the primary key for the selected table. Primary keys can be named for tables in Adaptive Server Anywhere databases that are version 9 and higher.

- ◆ **Set Primary Key Now** Opens the Set Primary Key dialog where you can specify or change the primary key for the selected table.

Columns Shows the primary key columns for the table.

Clustered Shows whether the table has a clustered index. Clustered indexes are supported for Adaptive Server Anywhere databases that are version 8.0.2 and higher.

Clustered indexes in Adaptive Server Anywhere store the table rows in approximately the same order as they appear in the corresponding index. Using a clustered index can lead to performance benefits by reducing the number of times each page needs to be read into memory. Only one index on a table can be a clustered index.

☞ For more information about clustered indexes, see [“CREATE INDEX statement”](#) [*ASA SQL Reference*, page 368].

-
- ◆ **Set Clustered Index Now** Opens the Set Clustered Index dialog where you can specify that an index on this table is a clustered index.

Index type Shows the type of index the table has.

Maximum hash size This information only appears for databases created with Adaptive Server Anywhere 7 or earlier. The hash size is the number of bytes used to store a value in an index.

☞ For more information about indexes, see “[Indexes](#)” [*ASA SQL User’s Guide*, page 426].

Adaptive Server Anywhere version 6 and 7 databases use regular B-tree indexes with a hash size of 10.

Comment Provides a place for you to type a text description of the table. For example, you could use this area to describe the table’s purpose in the system.

On commit This control only appears when the table was created as a [global temporary table](#). Shows whether the rows of the table are deleted or preserved when a COMMIT is executed.

See also

- ◆ “[Working with tables](#)” [*ASA SQL User’s Guide*, page 40]

Table property sheet: **Columns tab**

The Columns tab of the Table property sheet has the following components:

Columns list Lists all the columns of the table, as well as their type and comments.

Details Displays the Column Details dialog, which shows a summary of the properties for the column.

See also

- ◆ “[Managing primary keys \(Sybase Central\)](#)” [*ASA SQL User’s Guide*, page 45]
- ◆ “[Working with tables](#)” [*ASA SQL User’s Guide*, page 40]

Table property sheet: **Permissions tab**

The Permissions tab of the Table property sheet has the following components:

Permissions list Lists the users who have permissions on the table. If you want to add users to the list, click Grant. To remove a user from the list, select the user, then click revoke. You can select multiple users by holding Shift while you click.

To grant or revoke permissions, click the fields beside each user.

Double-clicking (so that a check mark and two + signs appear) gives the user grant options.

- ◆ **Grant** Displays the Grant Permission dialog, which lets you grant permissions on the table to other users.
- ◆ **Revoke** Revokes permissions from the users and removes them from the Permissions list.

Select Shows whether the Select permissions for the user applies to all columns or a subset of columns. Click Change to grant Select permissions for a subset of columns.

Update Shows whether the Update permissions for the user applies to all columns or a subset of columns. Click Change to grant Update permissions for a subset of columns.

References Shows whether the Reference permissions for the user applies to all columns or a subset of columns. Click Change to grant Reference permissions for a subset of columns.

- ◆ **Change** Click Change to grant Select, Update, or Reference permissions for a subset of columns.

See also

- ◆ [“Table and views permissions overview”](#) [*ASA Database Administration Guide*, page 429]
- ◆ [“Working with tables”](#) [*ASA SQL User’s Guide*, page 40]

Table property sheet: Miscellaneous tab

The Miscellaneous tab of the Table property sheet has the following components:

Maximum table width The number of bytes required for each row in the table. The number is calculated from the length of the string columns, the precision of numeric columns, and the number of bytes of storage for all other data types. If the table includes long binary or long VARCHAR columns, their arbitrary widths are not included, so the row width can only be approximated.

Number of rows Shows the approximate number of rows in the table. To update this value, click Calculate.

- ◆ **Calculate** Calculates the number of rows in the table.

Free space Specifies the amount of free space you want to reserve for each table page. The free space is used if rows increase in size when the data is updated. If there is no free space in a table page, every increase in the size

of a row on that page requires the row to be split across multiple table pages, causing row fragmentation and possible performance degradation.

☞ For more information, see “[ALTER TABLE statement](#)” [*ASA SQL Reference*, page 294].

- ◆ **Default** Choose this option to reserve 200 bytes in each page.
- ◆ **Percentage** Choose this option to specify an integer between 0 and 100. The former specifies that no free space is to be left on each page—each page is to be fully packed. A high value causes each row to be inserted into a page by itself.

Table is replicating data Select this option to include the table as part of a [replication](#) primary site.

☞ For more information about replication primary sites, see “[Primary site components](#)” [*ASA Database Administration Guide*, page 465].

See also

- ◆ “[Working with tables](#)” [*ASA SQL User’s Guide*, page 40]

Table property sheet: Constraints tab

This tab only appears for databases created with version 8.x and earlier of Adaptive Server Anywhere.

The Constraints tab of the Table property sheet has the following components:

Unique constraints list Lists each unique constraint defined for the table.

To create a new unique constraint for the table, click New. If you want to remove a unique constraint from the table, select the unique constraint from the list, then click Delete. You can select multiple unique constraints by holding Shift while you click.

- ◆ **New** Displays the Create Unique Constraint dialog, which lets you create new unique constraints for columns of the table.
- ◆ **Delete** Removes the unique constraint from the list.

Check constraint Lets you define conditions on a column or set of columns to make up the check constraint of the table. The check constraint restricts the values that can be entered in the column(s).

For example, to check that an employee’s start date falls in a particular range, type:

```
CHECK ( start_date BETWEEN '1983/06/27'  
AND CURRENT DATE )
```


☞ For more information, see “Using CHECK constraints on columns” [ASA SQL User’s Guide, page 88].

Template property sheet, Definition property sheet, and Site property sheet

The Template property sheet, Definition property sheet, and Site property sheet consist of four tabs: General, Articles, Connection, and Extended Options.

Note The Template, Definition, and Site property sheets are only available for databases created with version 7.x or earlier of Adaptive Server Anywhere.

Template, Definition, and Site property sheet: General tab

The General tab of the Template, Definition, and Site property sheets has the following components:

Name Shows the name of the template, definition, or site.

Type Shows the type of object.

Creator Shows the database user who created and owns the template, definition, or site.

Site This field only appears on the Definition property sheet. Shows the name that uniquely identifies this remote database within your MobiLink setup. You can edit the Site name in the adjacent field.

Template This field only appears on the Site property sheet. Shows the name of the template used by the site.

Template and Definition property sheet: Articles tab

The Site property sheet does not have an Articles tab.

The Articles tab of the Template and Definition property sheets has the following components:

Tables tab The Tables tab lets you select tables to include in your client database.

Columns tab The Columns tab lets you select columns from the tables to include in your client database.

WHERE Clauses tab The WHERE Clauses tab lets you type a WHERE clause to restrict the rows included in the article.

Each tab is described in detail below.

See also

- ◆ [“CREATE PUBLICATION statement” \[ASA SQL Reference, page 385\]](#)
- ◆ [“Publishing only some rows using a WHERE clause” \[SQL Remote User’s Guide, page 96\]](#)

Tables tab

The Tables tab lets you select tables and add them to the list of articles that are included in the client database.

Available tables list Lists all the [base table](#) in the database you are currently connected to.

Selected tables list Lists all the tables that are included in the article for the client database.

- ◆ **Add** Adds the table in the Matching Tables list to the Tables list so it is included in the article.
- ◆ **Remove** Removes the table from the Tables list so it is not included in the article.

Columns tab

The Columns tab lets you select columns from tables and add them to the list of articles that are included in the client database.

Available columns list Lists the tables selected on the Tables tab. Click a table in the list to display its columns.

Selected columns list Lists all the columns that are included in the article for the client database.

- ◆ **Add** Adds the column selected in the Available Columns list to the columns list so it is included in your articles to include in the client database.
- ◆ **Delete** Removes the column from the Columns list so it is not included in the article.

WHERE Clauses tab

The WHERE Clauses tab lets you supply a WHERE clause to restrict the rows that are included in the client database.

Articles list Select a table from the list of tables included in the article.

The selected article has the following WHERE clause In the text box, type the WHERE clause for the table to restrict the rows that are included in the article.

☞ For more information, see [“Publishing only some rows using a WHERE clause” \[SQL Remote User’s Guide, page 96\]](#).

See also

- ◆ [“The WHERE clause: specifying rows” \[ASA SQL User’s Guide, page 225\]](#)

Template, Definition, and Site property sheet: Connection tab

The Connection tab of the Template, Definition, and Site property sheets has the following components:

Protocol Specify the communication protocol to use for synchronization. TCP/IP is used by default.

- ◆ **TCP/IP** Select this option to use the TCP/IP protocol for synchronization. TCP/IP supports elliptic-curve (formerly Certicom) encryption.
- ◆ **HTTP** Select this option to use the HTTP protocol for synchronization. HTTP supports elliptic-curve (formerly Certicom) encryption.

Host The IP number or name of the machine on which the MobiLink synchronization server is running. On a local area network, the may be a machine name. The default value is **localhost**. You can use **localhost** if the synchronization server is running on the same machine as the client.

- ◆ **Port** The MobiLink synchronization server communicates over a specific port. By default, the port number is 2439 for TCP/IP and 80 for HTTP. If you choose a value other than these, you must configure your MobiLink synchronization server to listen on the port you specify.

Proxy host Type the host name or IP address of the proxy server. The default value is **localhost**. This field is enabled only when the HTTP protocol is selected.

- ◆ **Proxy port** The port number of the proxy server. The default value is 80. This field is enabled only when the HTTP protocol is selected.

URL suffix The suffix to add to the URL on the first line of each HTTP request. The parameter can be used to help ensure that a particular client connects to the intended server. This field is enabled only when the HTTP protocol is selected.

HTTP version A string specifying the version of HTTP to use. You have a choice of **1.0** or **1.1**. This field is enabled only when the HTTP protocol is selected.

Security You can encrypt all communication through the connection using elliptic-curve (formerly Certicom) encryption.

- ◆ **Enable Certicom security** Select this option to use the elliptic-curve (formerly Certicom) encryption. Selecting this option enables the fields below.

- ◆ **Certificate company** Type the name of the certificate authority or organization that issued the certificate. The server's and the client's values must match.
 - ◆ **Certificate unit** Type the certificate unit. The is also called the organizational unit. The server's and the client's values must match.
 - ◆ **Certificate name** Type the certificate's common name. The server's and the client's values must match.
 - ◆ **Trusted certificates** Type the name of the certificate file the client uses to authenticate the server.
- See also
- ◆ **"-x option"** [*MobiLink Clients*, page 151]

Template, Definition, and Site property sheet: Extended Options tab

The Extended Options tab of the Template, Definition, and Site property sheets has the following components:

Extended option	Default	Description
"ConflictRetries (cr) extended option" [<i>MobiLink Clients</i> , page 111]	-1 (continue indefinitely)	Specifies the number of retries if the download fails because of conflicts.
"FireTriggers (ft) extended option" [<i>MobiLink Clients</i> , page 118]	ON	Specifies that triggers should be fired on the remote database when the download is applied.
"Increment (inc) extended option" [<i>MobiLink Clients</i> , page 121]	(infinite)	Controls the size of incremental uploads. By default, units of bytes are used. You can use the suffix k or m to specify units of kilobytes or megabytes, respectively.
"LockTables (lt) extended option" [<i>MobiLink Clients</i> , page 122]	ON	Specifies that articles (tables or parts of tables in the publications being synchronized) should be locked before synchronizing.

Extended option	Default	Description
“Memory (mem) extended option” [<i>MobiLink Clients</i> , page 123]	1 M	Specifies a cache size. By default, units of bytes are used. You can use the suffix k or m to specify units of kilobytes or megabytes, respectively.
“OfflineDirectory (dir) extended option” [<i>MobiLink Clients</i> , page 126]	NULL	Specifies the path containing offline transaction logs.
“Schedule (sch) extended option” [<i>MobiLink Clients</i> , page 127]	No schedule	Specifies a schedule for synchronization.
“ScriptVersion (sv) extended option” [<i>MobiLink Clients</i> , page 129]	DEFAULT	Specifies a script version.
“SendTriggers (st) extended option” [<i>MobiLink Clients</i> , page 132]	OFF	Specifies that trigger actions should be sent on upload.
“TableOrder (tor) extended option” [<i>MobiLink Clients</i> , page 132]	(none)	Specifies the order of tables in the upload stream.
“Verbose (v) extended option” [<i>MobiLink Clients</i> , page 134]	OFF	Specifies full verbosity.

Trigger property sheet

The Trigger property sheet consists of one tab: General.

Trigger property sheet: General tab

The General tab of the Trigger property sheet has the following components:

Name Shows the name of the trigger.

Type Shows the type of object.

Table Shows the table the trigger is associated with.

Dialect Shows the SQL dialect in which the code was last saved, either Watcom-SQL or Transact-SQL.

Events Shows which kind of event, Insert, Delete, Update, or Update Columns, causes the [trigger](#) to execute.

Timing Shows whether the trigger executes before or after the event. Row-level triggers can also have SQL Remote conflict timing, which executes before UPDATE or UPDATE OF column-lists events.

Level Shows whether the trigger is a [row-level trigger](#) or a [statement-level trigger](#).

Order For triggers in the table that execute for the same kind of event with the same timing, the number determines the order in which these triggers fire.

Comment Provides a place for you to type a text description of the trigger. For example, you could use this area to describe the trigger's purpose in the system.

See also

- ◆ [“Procedure and trigger overview”](#) [*ASA SQL User's Guide*, page 657]
- ◆ [“Using Procedures, Triggers, and Batches”](#) [*ASA SQL User's Guide*, page 655]

UltraLite Project property sheet

The UltraLite Project property sheet consists of one tab: General.

UltraLite Project property sheet: General tab

The General tab of the UltraLite Project property sheet has the following components:

Name Shows the name of the UltraLite project.

Type Shows the type of object.

See also

- ◆ [“Creating an UltraLite project”](#) [*UltraLite Database User's Guide*, page 202]

UltraLite Statement property sheet

The UltraLite Statement property sheet consists of two tabs: General and SQL Statement.

UltraLite Statement property sheet: General tab

The General tab of the UltraLite Statement property sheet has the following components:

Name Shows the name of the UltraLite statement.

Type Shows the type of object.

Project Shows the name of the UltraLite project this UltraLite statement belongs to.

Code segment You only need to provide a segment name if you are developing a multi-segment application for the Palm Computing Platform and you want to override the UltraLite default assignment.

When building applications for the Palm Computing Platform, you must supply a code segment name to indicate where the UltraLite statement is stored. You can select a segment name from the dropdown list or supply a new segment name. If you leave the field blank, the UltraLite statement is saved in the default segment, *ULSEGDEF*.

The Code Segment Name is a string and must be 8 characters or less in length, must start with a letter, and cannot contain spaces. You can use alphanumeric characters and underscores in the Code Segment Name.

☞ For more information about code segments, see “[UltraLite Databases](#)” [*UltraLite Database User’s Guide*, page 27].

See also

- ◆ “[Adding statements to a project](#)” [*UltraLite C/C++ User’s Guide*, page 43]

UltraLite Statement property sheet: SQL Statement

The SQL Statement tab of the UltraLite Statement property sheet has the following components:

This UltraLite statement contains the following SQL statement Shows the UltraLite statement. You can edit the SQL statement in this window.

See also

- ◆ “[Defining SQL statements for your application](#)” [*UltraLite Database User’s Guide*, page 202]
- ◆ “[Adding statements to a project](#)” [*UltraLite C/C++ User’s Guide*, page 43]

Unique Constraint property sheet

The Unique Constraint property sheet consists of two tabs: General and Columns.

Unique Constraint property sheet: General tab

The General tab of the Unique Constraint property sheet has the following components:

Name Shows the name of the unique constraint. You can change the name of the unique constraint in the adjacent field.

Type Shows the type of object.

Table Shows the table to which the unique constraint belongs.

Clustered Shows whether the table containing the unique constraint has a clustered index. Clustered indexes are supported for Adaptive Server Anywhere databases that are version 8.0.2 and higher.

Clustered indexes in Adaptive Server Anywhere store the table rows in approximately the same order as they appear in the corresponding index. Using a clustered index can lead to performance benefits by reducing the number of times each page needs to be read into memory. Only one index on a table can be a clustered index.

☞ For more information about clustered indexes, see “[CREATE INDEX statement](#)” [*ASA SQL Reference*, page 368].

◆ **Set Clustered Index Now** Opens the Set Clustered Index dialog where you can specify that an index on the table containing the unique constraint is a clustered index.

Index type Shows the type of index the table has.

See also

◆ “[CREATE TABLE statement](#)” [*ASA SQL Reference*, page 407]

Unique Constraint property sheet: Columns tab

The Columns tab of the Unique Constraint property sheet has the following components:

Columns list Shows all the columns in the unique constraint, as well as the data type and comment for each column.

◆ **Details** Displays the Column Details dialog, which shows a summary of the properties of the selected column.

See also

◆ “[CREATE TABLE statement](#)” [*ASA SQL Reference*, page 407]

User property sheet

The User property sheet consists of three tabs: General, Authorities, and Permissions.

See also

- ◆ [“Managing User IDs and Permissions” \[ASA Database Administration Guide, page 427\]](#)
- ◆ [“Granting and revoking remote permissions” \[ASA Database Administration Guide, page 440\]](#)

User property sheet: General tab

The General tab of the User property sheet has the following components:

Name Shows the name of the user.

Type Shows the type of object.

Allowed to connect Select this option to allow the user to connect to the database. If the user is not allowed to connect, the password (if one was supplied) is removed from the account. If you later change the user to allow them to connect, you must supply a new password. Clearing this option disables the Password and Confirm Password options.

Users are almost always allowed to connect.

- ◆ **Password** Type the password for the user. For added security, the characters appear as asterisks.
- ◆ **Confirm password** Confirm the password that you typed in the Password text box by entering it again. The contents of the two fields must match exactly.

Comment Provides a place for you to type a text description of the user. For example, you could use this area to describe the remote user’s purpose in the system.

See also

- ◆ [“Granting and revoking remote permissions” \[ASA Database Administration Guide, page 440\]](#)
- ◆ [“Managing User IDs and Permissions” \[ASA Database Administration Guide, page 427\]](#)

User property sheet: Authorities tab

The Authorities tab of the User property sheet has the following components:

DBA Select this option to grant DBA authority to the user; a user with DBA authority can fully administer the database.

Resource Select this option to grant resource authority to the user; a user with resource authority can create database objects.

Remote DBA Select this option to grant Remote DBA authority to the user. The SQL Remote Message Agent should be run using a user ID with this

type of authority to ensure that actions can be carried out without creating security loopholes. The MobiLink client utility, dbmlsync, also requires Remote DBA authority.

See also

- ◆ [“Managing User IDs and Permissions” \[ASA Database Administration Guide, page 427\]](#)
- ◆ [“GRANT statement” \[ASA SQL Reference, page 503\]](#)

User property sheet: Permissions tab

The Permissions tab of the User property sheet has the following components:

Permissions list Shows all tables the user has permissions on, as well as the user who owns each table. You can click the fields for each table to grant or revoke permissions; double-clicking (so that a checkmark and two + signs appear) gives the user grant options for the permission.

Show Select what type of object appears in the Permissions list:

- ◆ **Tables** All tables the user has permissions on.
- ◆ **Views** All views the user has permissions on.
- ◆ **Procedures & functions** All procedures and functions the user has permissions on. You can only grant Execute permissions for procedures and functions.

See also

- ◆ [“Granting and revoking remote permissions” \[ASA Database Administration Guide, page 440\]](#)

View property sheet

The View property sheet consists of three tabs: General, Columns, and Permissions.

View property sheet: General tab

The General tab of the View property sheet has the following components:

Name Shows the name of the view.

Type Shows the type of object.

Owner Shows the database user who created and owns the object.

Comment Provides a place for you to type a description of the view. For example, you could use this area to describe the view’s purpose in the system.

- See also
- ◆ “Creating views” [ASA SQL User’s Guide, page 54]
 - ◆ “Working with views” [ASA SQL User’s Guide, page 54]

View property sheet: Columns tab

The Columns tab of the View property sheet has the following components:

Columns list Lists the columns included in the view.

- See also
- ◆ “Working with views” [ASA SQL User’s Guide, page 54]

View property sheet: Permissions tab

The Permissions tab of the View property sheet has the following components:

Permissions list Lists the users who have permissions on the view. If you want to add users to the list, click Grant. To remove a user from the list, select the user, then click revoke. You can select multiple users by holding Shift while you click.

To grant or revoke permissions for a specific user, click the fields beside each user. Double-clicking (so that a check mark and two + signs appear) gives the user grant options.

- ◆ **Grant** Displays the Grant Permission dialog, which lets you grant permissions on the table to other users.
- ◆ **Revoke** Revokes permissions from the users and removes them from the Permissions list.

- See also
- ◆ “Granting permissions on views” [ASA Database Administration Guide, page 437]
 - ◆ “Working with views” [ASA SQL User’s Guide, page 54]

Web Service property sheet

The Web Service property sheet consists of two tabs: General and SQL Statement.

Web Service property sheet: General tab

The General tab of the Web Service property sheet has the following components:

Name Shows the name of the selected web service.

Type Shows the type of object.

Service type Shows whether the selected web service is an RAW, XML, HTML, SOAP, or DISH web service. You can change the service type by selecting a different type from the dropdown list.

Format This field applies only to SOAP and DISH services.

Generates output formats compatible with various types of SOAP clients, such as .NET or Java JAX-RPC. If a SOAP service's format is not specified, the format is inherited from the service's DISH service declaration. If the DISH service does not declare a format, it defaults to DNET, which is compatible with .NET clients. A SOAP service that does not declare a format may be used with different types of SOAP clients by defining multiple DISH services, each with a different format type.

Service name prefix This field applies only to DISH services. Only SOAP services whose names begin with this prefix are handled by the DISH service.

Authorization required Indicates whether users must authenticate in order to use this web service.

Place a checkmark in the box to indicate that authorization is required. When authorization is required, all users connecting to this service must provide a user name and password. If a checkmark appears beside the User field, you must authenticate as the specified user in order to use this web service. However, if a checkmark does not appear beside the User field and authentication is required, then you can authenticate with any database user in order to use this web service.

If authorization is not required, you must select a user from the dropdown list below. All requests are run using the account and permissions of the user specified in the User field.

User Shows which user's account is used to execute service requests. If the service does not require authorization, you must select a user from the dropdown list. All requests are run using the account and permissions of this user.

Security required Shows whether unsecure connections are accepted. Place a checkmark in the box to indicate that the web service requires security. If the web service requires security, then only HTTPS connections are accepted. If the checkbox is cleared, then both HTTP and HTTPS connections are accepted.

URL path Specifies whether URI paths are accepted, and if so, how they are processed.

☞ For more information about URIs, see [“How URLs are interpreted” \[ASA\]](#)

[Database Administration Guide, page 238](#)].

- ◆ **Off** Select this option if the remainder of the URI path is not permitted. If the service name ends with a forward slash (/), select Off. For example, if Off is selected and you have the following URL path:

```
http://<host-name>/<service-name>/aaa/bbb/ccc
```

only `http://<host-name>/<service-name>` is permitted. The remainder of the URI path, `/<aaa/bbb/ccc` is not permitted.

- ◆ **On** Select this option if the remainder of the URI path is permitted and is set as a single parameter. For example, in the following URL path:

```
http://<host-name>/<service-name>/aaa/bbb/ccc
```

the remainder of the URI path is `/aaa/bbb/ccc`. It is treated as a single parameter.

- ◆ **Elements** Select this option if the remainder of the URL path is permitted and is set as multiple parameters. For example, in the following URL path:

```
http://<host-name>/<service-name>/aaa/bbb/ccc
```

each element of the path is treated as a separate parameter. For example, `url1=aaa`, `url2=bbb`, `url3=ccc`, and so on.

Comment Provides a place for you to type a description of the web service. For example, you could use this area to describe the web service's purpose in the system.

See also

- ◆ [“Using Web Services” \[ASA Database Administration Guide, page 225\]](#)
- ◆ [“CREATE SERVICE statement” \[ASA SQL Reference, page 395\]](#)

Web Service property sheet: SQL Statement tab

The SQL Statement tab of the Web Service property sheet has the following components:

This web service has the following SQL statement Shows the SQL statement for the web service (if one has been specified). Selecting this option enables the text box below where you can enter the SQL statement for the web service.

The statement is the command, usually a stored procedure, that is called when someone access the service. If you define a statement, this is the only statement that can be run through this service. Services without statements are a serious security risk as they permit web clients to execute arbitrary commands. When creating such services, you must enable authorization,

which forces all clients to provide a valid user name and password. Even so, only services that define statements should be run in a production system.

The SQL statement is required for SOAP services. It is optional for RAW, XML, and HTML services, and is not applicable to DISH services.

See also

- ◆ [“Creating web services” \[ASA Database Administration Guide, page 231\]](#)
- ◆ [“CREATE SERVICE statement” \[ASA SQL Reference, page 395\]](#)

Introduction to dialog boxes

You can find most of the configurable settings in the Adaptive Server Anywhere plug-in in dialog boxes, which can be accessed either through the File menu or the Tools menu. If you have different plug-ins installed in Sybase Central, each plug-in may provide different menu items.

The File menu contains commands related to the objects that appear in the main Sybase Central window. These menu items change depending on which object you select. For example, if you select a table, the File menu shows commands and options related to tables. Likewise, if you select a column, the File menu changes to show column options. You can also access all these menu items in popup menus when you right-click an object.

The Tools menu contains commands related to connecting, disconnecting, plug-ins, and Sybase Central options. These menu items always remain visible, regardless of the objects you select in the main window.

You can also configure settings in Adaptive Server Anywhere using property sheets. These property sheets appear in the File menu (or the popup menu) when you select an object that has configurable properties.

☞ For descriptions of these property sheets, see [“Introduction to property sheets” on page 28](#).

Adaptive Server Anywhere 9 Plug-in Preferences dialog

The Plug-in Preferences dialog consists of two tabs: General and Utilities.

Plug-in Preferences dialog: General tab

The General tab of the Plug-in Preferences dialog has the following components:

Settings The preferences on the General tab govern how Adaptive Server Anywhere responds when you perform specific tasks in Sybase Central.

- ◆ **Warn when connecting with user ID without DBA authority** Select this preference if you want Adaptive Server Anywhere to warn you when you are connecting with a user ID that does not have DBA authority.
- ◆ **Inform when a breakpoint is hit while debugging** Select this preference if you want Adaptive Server Anywhere to notify you when a breakpoint is hit when you are working in debug mode.
- ◆ **Inform when a statement is canceled while debugging** Select this option if you want Adaptive Server Anywhere to notify you when a statement is canceled when you are working in debug mode.

-
- ◆ **Confirm granting of permissions via clipboard and drag-and-drop operations** Sybase Central allows you to use drag-and-drop operations and copy and paste operations to grant permissions on tables, views, procedures, and functions to users or groups.

Select this preference if you want Sybase Central to prompt you before permissions are granted to a user or group by dragging or copying and pasting them to a table, view, procedure, or function.

- ◆ **Confirm creation of SQL Remote subscriptions via clipboard and drag-and-drop operations** Sybase Central allows you to use drag-and-drop operations and copy and paste operations to create SQL Remote subscriptions for remote users and consolidated users.

Select this preference if you want Sybase Central to prompt you before you subscribe a remote user or consolidated user to a publication by dragging or copying and pasting the user to a publication.

- ◆ **Confirm creation of MobiLink synchronization subscriptions via clipboard and drag-and-drop operations** Sybase Central allows you to use drag-and-drop operations and copy and paste operations to create synchronization subscriptions for MobiLink users.

Select this preference if you want Sybase Central to prompt you before you subscribe a MobiLink user to a publication by dragging or copying and pasting the MobiLink user to a publication.

- ◆ **Confirm deletions when editing table data** Select this preference if you want Adaptive Server Anywhere to prompt you before table data is deleted on the Data tab in Sybase Central.

- ◆ **Confirm updates when editing table data** Select this preference if you want Adaptive Server Anywhere to prompt you before table data is updated on the Data tab in Sybase Central.

- ◆ **Confirm implicit updates when editing table data** Select this preference if you want Adaptive Server Anywhere to prompt you before implicit updates are made in Sybase Central. Implicit updates are made when you are editing a row on the Data tab and then click anywhere else in Sybase Central outside the row you are currently editing.

- ◆ **Confirm cancellations when editing table data** Select this preference if you want Sybase Central to prompt you when you cancel changes to table data on the Data tab in Sybase Central.

Restore Defaults Click Restore Defaults to return the preferences on this tab to their default values (selected or cleared). By default, all the preferences on this tab are selected.

Plug-in Preferences dialog: Utilities tab

The Utilities tab of the Plug-in Preferences dialog has the following components:

Settings The preferences on the Utilities tab govern whether wizard introduction pages appear and whether wizard message windows close when the wizard is finished.

- ◆ **Show Create Database wizard introduction page** Select this preference if you want the Create Database wizard introduction page to appear when you open the wizard.
- ◆ **Show Upgrade Database wizard introduction page** Select this preference if you want the Upgrade Database wizard introduction page to appear when you open the wizard.
- ◆ **Show Backup Database wizard introduction page** Select this preference if you want the Backup Database wizard introduction page to appear when you open the wizard.
- ◆ **Show Restore Database wizard introduction page** Select this preference if you want the Restore Database wizard introduction page to appear when you open the wizard.
- ◆ **Show Create Backup Images wizard introduction page** Select this preference if you want the Create Image Backup wizard introduction page to appear when you open the wizard.
- ◆ **Show Unload Database wizard introduction page** Select this preference if you want the Unload Database wizard introduction page to appear when you open the wizard.
- ◆ **Show Extract Database wizard introduction page** Select this preference if you want the Extract Database wizard introduction page to appear when you open the wizard.
- ◆ **Show Validate Database wizard introduction page** Select this preference if you want the Validate Database wizard introduction page to appear when you open the wizard.
- ◆ **Show Compress Database wizard introduction page** Select this preference if you want the Compress Database wizard introduction page to appear when you open the wizard.
- ◆ **Show Uncompress Database wizard introduction page** Select this preference if you want the Uncompress Database wizard introduction page to appear when you open the wizard.

-
- ◆ **Show Create Write File wizard introduction page** Select this preference if you want the Create Write File wizard introduction page to appear when you open the wizard.
 - ◆ **Show Create Custom Collation wizard introduction page** Select this preference if you want the Create Custom Collation wizard introduction page to appear when you open the wizard.
 - ◆ **Show Translate Log File wizard introduction page** Select this preference if you want the Translate Log File wizard introduction page to appear when you open the wizard.
 - ◆ **Show Change Log File Settings wizard introduction page** Select this preference if you want the Change Log File Settings wizard introduction page to appear when you open the wizard.
 - ◆ **Show Erase Database wizard introduction page** Select this preference if you want the Erase Database wizard introduction page to appear when you open the wizard.
 - ◆ **Show Migrate Database wizard introduction page** Select this preference if you want the Migrate Database wizard introduction page to appear when you open the wizard.
 - ◆ **Show Index Consultant introduction page** Select this preference if you want the Index Consultant introduction page to appear when you open the Index Consultant.
 - ◆ **Close wizard messages window when completed** Select this preference if you want the wizard messages window to close after it is finished. By default, this preference is not selected.


Restore Defaults Click Restore Defaults to return the preferences on this tab to their default values (selected or cleared). By default, all preferences on this tab except Close Wizard Messages Window When Completed are selected.

Plug-in Preferences dialog: Table Data tab

The Table tab of the Plug-in Preferences dialog has the following components:

Which font do you want to use to show table data? Select one of the following options to specify the font that is used for table data on the Data tab when viewing table data in Sybase Central.

- ◆ **System** Select this option to use the machine's normal text font. This is the default setting.

- ◆ **Editor** Select this option to use the same font as the Code Editor.
 For more information about the Code Editor, see [“Format tab” on page 166](#).
- ◆ **Custom** Select this option to specify the font, font style, and point size you want to use. Click Browse to select the desired settings in the Font dialog.

Add Service Dependencies dialog

The Add Service Dependencies dialog has the following components:

Choose one or more services from the list of candidates Lists all the services on your system. Select a service from this list and click OK to add it to the list of services and service groups on the Dependencies tab of the Service property sheet.

You can select multiple services by holding Shift while you click. Double-clicking a service adds the selected service to the list on the Dependencies tab and closes the dialog.

See also

- ◆ [“Service dependencies” \[ASA Database Administration Guide, page 31\]](#)
- ◆ [“Running more than one service” \[ASA Database Administration Guide, page 31\]](#)

Add Service Group Dependencies dialog

The Add Service Group Dependencies dialog has the following components:

Choose one or more service groups from the list of candidates Lists all the service groups on your system. Select a service group from this list and click OK to add it to the list of services and service groups on the Dependencies tab of the Service property sheet.

You can select multiple service groups by holding Shift while you click. Double-clicking adds the selected service group to the list on the Dependencies tab and closes the dialog.

See also

- ◆ [“Service groups overview” \[ASA Database Administration Guide, page 32\]](#)
- ◆ [“Running more than one service” \[ASA Database Administration Guide, page 31\]](#)

Change Settings dialog

This dialog allows you to change a foreign key’s settings for check on commit, whether NULL values are allowed, and update and delete behavior.

The Change Settings dialog has the following components:

Check only on a commit Forces the database to wait for a COMMIT before checking the integrity of the foreign key, overriding the setting of the WAIT_FOR_COMMIT database option.

Allow null values Determines whether the foreign key columns allow NULL values. To use this option, the foreign key columns must all have Allow Nulls set to Yes.

Update action Uses one of the following settings to define the behavior of the table when a user tries to update data.

- ◆ **Not permitted** Prevents updates of the associated primary table's primary key value if there are no corresponding foreign keys.
- ◆ **Cascade values** Updates the foreign key to match a new value for the associated primary key.
- ◆ **Set values to null** Sets all the foreign key values that correspond to the updated primary key of the associated primary table to NULL.
- ◆ **Set values to default** Sets foreign key values that match the updated or deleted primary key value to values specified in the DEFAULT clause of each foreign key column. To use this option, the foreign key columns must all have default values.

Delete action Uses one of the following settings to define the behavior of the table when a user tries to delete data.

- ◆ **Not permitted** Prevents deletion of the associated primary table's primary key value if there are no corresponding foreign keys in the table.
- ◆ **Cascade values** Deletes the rows from the table that match the deleted primary key of the associated primary table.
- ◆ **Set values to null** Sets all the foreign key values in the table that correspond to the deleted primary key of the associated primary table to NULL. To use this option, the foreign key columns must all have Allow Null set to Yes.
- ◆ **Set values to default** Sets foreign key values that match the updated or deleted primary key value to values specified in the DEFAULT clause of each foreign key column. To use this option, the foreign key columns must all have default values.

See also

- ◆ [“Foreign Key property sheet” on page 46](#)
- ◆ [“Managing foreign keys” \[ASA SQL User's Guide, page 47\]](#)
- ◆ [“Ensuring Data Integrity” \[ASA SQL User's Guide, page 79\]](#)

Change User to Consolidated User dialog

The Change User to Consolidated User dialog has the following components:

User Shows the name of the selected user.

Message type Select a [message type](#) for communicating with the [publisher](#).

Address Type the destination for replication messages. Publishers and consolidated users each have their own address. The address must be valid for the Message Type you select. For example, if you select the FTP message type, a valid address is a host (such as **ftp.mycompany.com**) or an IP address (such as **192.138.151.66**).

Send frequency Select one of the following values to specify how often the Message Agent should run.

- ◆ **Send then close** Select this option to set the [replication frequency](#) so that the Message Agent runs once, sends all pending messages to this consolidated user, and then shuts down. The Message Agent must be restarted each time the publisher wants to send messages. This option is only useful when you are running the message agent at a remote site.
- ◆ **Send every** Select this option to set the replication frequency so that the Message Agent runs continuously, sending messages to this consolidated user at the given periodic interval. This option is useful at both consolidated and remote sites.
- ◆ **Send daily at** Select this option to set the replication frequency so that the Message Agent runs continuously, sending messages to this consolidated user each day at the given time. This option is particularly useful at remote sites.

See also

- ◆ [“GRANT CONSOLIDATE statement \[SQL Remote\]” \[ASA SQL Reference, page 508\]](#)
- ◆ [“Working with message types” \[SQL Remote User’s Guide, page 210\]](#)
- ◆ [“Granting and revoking remote permissions” \[ASA Database Administration Guide, page 440\]](#)
- ◆ [“Managing SQL Remote permissions” \[SQL Remote User’s Guide, page 201\]](#)

Change User to Remote User dialog

The Change User to Remote User dialog has the following components:

User Shows the name of the selected user.

Message type Select a [message type](#) for communicating with the [publisher](#).

Address Type the destination for replication messages. Publishers and remote users each have their own address. The address must be valid for the Message Type you select. For example, if you select the FTP message type, a valid address is a host (such as **ftp.mycompany.com**) or an IP address (such as **192.138.151.66**).

Send frequency Select one of the following values to specify how often the Message Agent should run.

- ◆ **Send then close** Select this option to set the [replication frequency](#) so that the publisher's agent runs once, sends all pending messages to this remote user, and then shuts down. The agent must be restarted each time the publisher wants to send messages. This option is only useful when you are running the message agent at a remote site.
- ◆ **Send every** Select this option to set the replication frequency so that the publisher's agent runs continuously, sending messages to this remote user at the given periodic interval. This option is useful at both consolidated and remote sites.
- ◆ **Send daily at** Select this option to set the replication frequency so that the publisher's agent runs continuously, sending messages to this remote user each day at the given time. This option is particularly useful at remote sites.

See also

- ◆ [“GRANT REMOTE statement \[SQL Remote\]” \[ASA SQL Reference, page 511\]](#)
- ◆ [“Working with message types” \[SQL Remote User's Guide, page 210\]](#)
- ◆ [“Granting and revoking remote permissions” \[ASA Database Administration Guide, page 440\]](#)
- ◆ [“Managing SQL Remote permissions” \[SQL Remote User's Guide, page 201\]](#)

Column Permissions dialog

The Column Permissions dialog has the following components:

This user has the following column permissions Lists columns and type of permissions the selected user has on each column in the table. You can click in the fields beside each column to grant or revoke permissions; double-clicking (so that a checkmark and two + signs appear) gives the user grant options for the permission.

Details Displays the Column Details dialog for the selected column. The Column Details dialog shows the name, type, primary key, unique

constraints, whether NULLs are allowed, and comment for the selected column.

See also

- ◆ [“Granting permissions on tables”](#) [*ASA Database Administration Guide*, page 435]

Consolidated User Options dialog

The Consolidated User Options dialog has the following components:

Consolidated user Displays the name of the selected consolidated user.

Show Provides a list of option types. For example, if you choose Database Options, only database-related options appear in the Options list.

Options list Shows the option settings and default values based on the type of options selected in the Show list. Once you select an option, you can use the buttons at the side of the dialog.

- ◆ **New** This button is not enabled when you are setting consolidated user options. You must open the Database Options dialog to add new options.
- ◆ **Remove Now** This button is not enabled when you are setting consolidated user options. You must open the Database Options dialog to remove options.
- ◆ **Set Temporary Now** To temporarily change an option setting for the consolidated user, select an option from the Options list, type the desired setting in the Value field, then click Set Temporary Now.
Temporary values only last for the current Sybase Central session.
- ◆ **Set Permanent Now** To permanently change a setting for the consolidated user, select an option from the Options list, type the desired setting in the Value field, then click Set Temporary Now.
Permanent values last between sessions until they are explicitly changed again.

Value Select an option in the Options list and type the desired setting in the Value field. You can make the setting temporary or permanent by clicking Set Temporary Now and Set Permanent Now respectively. An option value cannot be set for an individual user ID unless there is already a PUBLIC group setting for that option.

Note

When you change options settings, some of the settings take effect immediately, while for others to take effect you must restart the database.

☞ For information about specific options, see [“Alphabetical list of options”](#) [*ASA Database Administration Guide*, page 633].

See also

- ◆ “SET OPTION statement” [*ASA SQL Reference*, page 613]
- ◆ “Working with databases” [*ASA SQL User’s Guide*, page 31]
- ◆ “Managing User IDs and Permissions” [*ASA Database Administration Guide*, page 427]

Create Schedule dialog

The Create Schedule dialog consists of two tabs: General and Recurrence.

Create Schedule dialog: General tab

The General tab of the Create Schedule dialog has the following components:

Schedule The name of the event schedule. You can change the name of the schedule in the adjacent text box.

Start time Select one of the following options to specify when the event occurs.

- ◆ **At** Select this option to specify a scheduled time for each day the event is scheduled. If a Start Date is specified, the Start Time refers to that date. If you do not specify a Start Date, the Start Time is on the current day (unless the time has passed) and each subsequent day.
- ◆ **Between** A range of times during the day outside of which no scheduled times occur. If you specify a Start Date, the scheduled times do not occur until that date.

Start date The date on which the scheduled event starts occurring. The current date is the default. You can type the date in the text box or select the month, day, and year from the lists.

See also

- ◆ “CREATE EVENT statement” [*ASA SQL Reference*, page 351]
- ◆ “Automating Tasks Using Schedules and Events” [*ASA Database Administration Guide*, page 301]

Create Schedule dialog: Recurrence tab

All of the settings on this tab are optional.

The Recurrence tab of the Create Schedule dialog has the following components:

Repeat every Select the interval between successive scheduled events.

Trigger on the following Select the day of the week and/or month on which the selected event occurs. You must select this checkbox to enable the Days of the Week and Days of the Month options below.

- ◆ **days of the week** Select the day(s) of the week on which the selected event occurs by clicking the checkbox beside the desired day.
 - ◆ **days of the month** Select the day(s) of the month on which the selected event occurs by clicking the checkbox beside the desired day.
- See also
- ◆ [“CREATE EVENT statement” \[ASA SQL Reference, page 351\]](#)
 - ◆ [“Automating Tasks Using Schedules and Events” \[ASA Database Administration Guide, page 301\]](#)

Create Trigger Condition dialog

The Create Trigger Condition dialog has the following components:

Condition Select a preset trigger condition from the list. When this condition and the value (specified below) are satisfied, the selected event is triggered.

Operator Select an operator from the list. The comparison operator compares the condition and value in the trigger condition.

Value Enter a value for the condition. When this value and the condition (specified above) are satisfied, the selected event is triggered.

See also

- ◆ [“Defining trigger conditions for events” \[ASA Database Administration Guide, page 308\]](#)

Database Options dialog

Any options you set in this dialog are set for the PUBLIC group. Changing the value of an option for the PUBLIC group sets the value of the option for all users who have not set their own value. An option value cannot be set for an individual user ID unless there is already a PUBLIC group setting for that option.

The Database Options dialog has the following components:

Database Displays the name of the selected database.

Show Provides a list of option types. For example, if you choose Database Options, only database-related options appear in the Options list.

Options list Shows the option settings and default values based on the type of options selected in the Show list. Once you select an option, you can use the buttons at the side of the dialog.

- ◆ **New** Displays the Create Public Option dialog. In this dialog, you can define new options and set their values.
- ◆ **Remove Now** Removes the selected option from the list.

-
- ◆ **Set Temporary Now** To temporarily change an option setting for the database, select an option from the Options list, type the desired setting in the Value field, then click Set Temporary Now.

Temporary values only last for the current Sybase Central session.

- ◆ **Set Permanent Now** To permanently change an option setting for the database, select an option from the Options list, type the desired setting in the Value field, then click Set Permanent Now.

Permanent values last between sessions until they are explicitly changed again.

Value Select an option in the Options list and type the desired setting in the Value field. You can make the setting temporary or permanent by clicking Set Temporary Now and Set Permanent Now respectively.

Note

When you change options, some of the settings take effect immediately, while for others to take effect, you must restart the database.

☞ For information about specific options, see [“Alphabetical list of options”](#) [*ASA Database Administration Guide*, page 633].

See also

- ◆ [“SET OPTION statement”](#) [*ASA SQL Reference*, page 613]
- ◆ [“Working with databases”](#) [*ASA SQL User’s Guide*, page 31]
- ◆ [“Managing User IDs and Permissions”](#) [*ASA Database Administration Guide*, page 427]

Edit Schedule dialog

The Edit Schedule dialog consists of two tabs: General and Recurrence.

Edit Schedule dialog: General tab

The General tab of the Edit Schedule dialog has the following components:

Schedule The name of the schedule. When you are editing the schedule, you cannot change the schedule’s name.

Start time Select one of the following options to specify a when the event occurs.

- ◆ **At** Select this option to specify a scheduled time for each day the event is scheduled. If a Start Date is specified, the Start Time refers to that date. If you do not specify a Start Date, the Start Time is on the current day (unless the time has passed) and each subsequent day.
- ◆ **Between** A range of times during the day outside of which no scheduled times occur. If you specify a Start Date, the scheduled times do not occur until that date.

Start date The date on which the scheduled event starts occurring. The current date is the default. You can enter a date in the text box or select the month, day, and year from the lists.

See also

- ◆ [“CREATE EVENT statement” \[ASA SQL Reference, page 351\]](#)
- ◆ [“Automating Tasks Using Schedules and Events” \[ASA Database Administration Guide, page 301\]](#)

Edit Schedule dialog: Recurrence tab

All of the settings on this tab are optional.

The Recurrence tab of the Edit Schedule dialog has the following components:

Repeat every Select the interval between successive scheduled events.

Trigger on the following Select the day of the week and/or month on which the selected event occurs. You must select this checkbox to enable the Days of the Week and Days of the Month options below.

- ◆ **days of the week** Select the day(s) of the week on which the selected event occurs by clicking the checkbox beside the desired day.
- ◆ **days of the month** Select the day(s) of the month on which the selected event occurs by clicking the checkbox beside the desired day.

See also

- ◆ [“CREATE EVENT statement” \[ASA SQL Reference, page 351\]](#)
- ◆ [“Automating Tasks Using Schedules and Events” \[ASA Database Administration Guide, page 301\]](#)

Edit Trigger Condition dialog

The Edit Trigger Condition dialog has the following components:

Condition Select a preset trigger condition from the list. When this condition and the value (specified below) are satisfied, the selected event is triggered.

Operator Select an operator from the list. The comparison operator compares the condition and value in the trigger condition.

Value Enter a value for the condition. When this value and the condition (specified above) are satisfied, the selected event is triggered.

See also

- ◆ [“Defining trigger conditions for events” \[ASA Database Administration Guide, page 308\]](#)

Filter Objects by Owner dialog

The Filter Objects by Owner dialog has the following components:

Database Displays the name of the selected database.

Select the users and groups whose objects you want to view Lists the names and comments for all the users and groups connected to the database. Select the checkbox beside a user or group if you want their objects to appear.

The user SYS owns system tables. Other built-in tables, such as the MobiLink system tables, are owned by the user dbo.

Select All Click Select All to view objects belonging to all users in the Users list.

Clear All Click Clear All to clear all the checkboxes in the Users list.

Restore Defaults Click Restore Defaults to return the list of users on this tab to their default values (selected or cleared).

See also

- ◆ [“Working with databases” \[ASA SQL User’s Guide, page 31\]](#)
- ◆ [“Displaying system objects in a database” \[ASA SQL User’s Guide, page 37\]](#)

Grant Permissions dialog

The Grant Permissions dialog has the following components:

Choose one or more users or groups from the list of candidates Lists the users or groups you can grant permissions to. Select a user and click OK to grant permissions on the selected table, procedure, function, or view to the user or group. Double-clicking a user or group grants them permission on the selected database object and closes the dialog.

You can grant permissions to multiple users by holding the Shift key while you click the users’ or groups’ names.

See also

- ◆ [“Granting permissions on tables” \[ASA Database Administration Guide, page 435\]](#)
- ◆ [“GRANT statement” \[ASA SQL Reference, page 503\]](#)

Group Options dialog

The Group Options dialog has the following components:

Group Displays the name of the selected group.

Show Provides a list of option types. For example, if you choose Database Options, only database-related options appear in the Options list.

Options list Shows the option settings and their default values based on the type of options selected in the Show list. Once you select an option, you can use the buttons at the side of the dialog.

- ◆ **New** This button is not enabled when you are setting group options. You must open the Database Options dialog to add new options to the Options list.
- ◆ **Remove Now** This button is not enabled when you are setting group options. You must open the Database Options dialog to remove options from the Options list.
- ◆ **Set Temporary Now** To temporarily change an option setting for a group, select an option from the Options list, type the desired setting in the Value field, then click Set Temporary Now.

Temporary values only last for the current Sybase Central session.

- ◆ **Set Permanent Now** To permanently change an option setting for a group, select an option from the Options list, type the desired setting in the Value field, then click Set Permanent Now.
- Permanent values last between sessions until they are explicitly changed again.

Value Select an option in the Options list and type the desired setting in the Value field. You can make the setting temporary or permanent by clicking Set Temporary Now and Set Permanent Now respectively. An option value cannot be set for a group unless there is already a PUBLIC group setting for that option.

Note

When you change options, some of the settings take effect immediately, while for others you must restart the database before they take effect.

☞ For information about specific options, see [“Alphabetical list of options” \[ASA Database Administration Guide, page 633\]](#).

See also

- ◆ [“SET OPTION statement” \[ASA SQL Reference, page 613\]](#)
- ◆ [“Working with databases” \[ASA SQL User’s Guide, page 31\]](#)
- ◆ [“Managing User IDs and Permissions” \[ASA Database Administration Guide, page 427\]](#)

New Members dialog

The New Members dialog has the following components:

Choose one or more users and groups from the list of candidates Lists the names and comments for all the users and groups in the database that can be added to the selected group.

New Memberships dialog

The New Memberships dialog has the following components:

Choose one or more groups from the list of candidates Lists the names and comments for all the groups in the database to which the selected group can be added.

Options dialog

The Options dialog has two tabs: Check for updates and Logging.

Options dialog: Check for updates tab

This tab allows you to configure whether SQL Anywhere Studio should check for software updates and how often it should do so. Checking for updates is done on application startup.

You can also check for updates any time from the Start menu by choosing Programs ► SQL Anywhere 9 ► Check For Updates and from the Sybase Central, Interactive SQL, and Console utility Help menus.

The Check For Updates tab of the Options dialog in Sybase Central has the following components:

When to check for updates Choose one of the following options to specify how often SQL Anywhere Studio should check for updates. By default, Never is selected.

- ◆ **On application startup** Select this option if you want SQL Anywhere Studio to check for updates each time Sybase Central is started.
- ◆ **Daily** Select this option if you want SQL Anywhere Studio to check for updates the first time Sybase Central is started each day.
- ◆ **Weekly** Select this option if you want SQL Anywhere Studio to check for updates the first time Sybase Central is started each week.
- ◆ **Monthly** Select this option if you want SQL Anywhere Studio to check for updates the first time Sybase Central is started each month.
- ◆ **Never** Select this option if you do not want SQL Anywhere Studio to check for updates. This is the default setting.

What to check for Choose any combination of the following options to specify what types of updates SQL Anywhere Studio should check for. By default, all of the following options are selected.

- ◆ **Express Bug Fix** Select this option if you want SQL Anywhere Studio to check for Express Bug Fixes.

An express bug fix is a subset of the software with one or more bug fixes. The bug fixes are listed in the release notes for the update. Bug fix updates may only be applied to installed software with the same version number. Some testing has been performed on the software, but the software has not undergone full testing. You should not distribute these files with your application unless you have verified the suitability of the software yourself.

- ◆ **Maintenance Release** Select this option if you want SQL Anywhere Studio to check for maintenance releases of the software.

A maintenance release is a complete set of software that upgrades installed software from an older version with the same major version number (version number format is *major.minor.patch.build*). Bug fixes and other changes are listed in the release notes for the upgrade.

- ◆ **Other Information** Select this option to check for other information, such as new product releases or upcoming events.

Options dialog: Logging tab

The Logging tab of the Options dialog has the following components:

Enable logging Select this option to enable logging for a database.

- ◆ **Add date and time to output** Select this option to include the date and time of each SQL statement occurrence in the log window or file.

Wrap text Specify the length of each line in the Design Details pane or log file. Each line wraps automatically to the next line after the number of characters that you specify. By default, there are 80 characters per line.

Save Click Save to save the logging information to a file.

Clear Clears the contents of the selected tab in the Design Details pane.

Pre-allocate Space for Dbspace dialog

The Pre-allocate Space for Dbspace dialog has the following components:

How much space would you like to pre-allocate for the dbspace? Enter the amount of space you want to pre-allocate to the dbspace. Pre-allocating

disk space for the dbspace extends the size of the corresponding database file by the amount of space you specify.

You cannot change the *page size* of a database because the page size is fixed when the database is created.

See also

- ◆ “ALTER DBSPACE statement” [*ASA SQL Reference*, page 270]
- ◆ “Pre-allocating space for database files” [*ASA Database Administration Guide*, page 291]

Publisher Options dialog

The Publisher Options dialog has the following components:

Publisher Displays the name of the publisher.

Show Provides a list of option types. For example, if you choose Database Options, only database-related options appear in the Options list.

Options list Shows the option settings and default values based on the type of options selected in the Show list. Once you select an option, you can use the buttons at the side of the dialog.

◆ **New** This button is not enabled when you are setting publisher options. You must open the Database Options dialog to add new options.

◆ **Remove Now** This button is not enabled when you are setting publisher options. You must open the Database Options dialog to remove options.

◆ **Set Temporary Now** To temporarily change an option setting for the publisher, select an option from the Options list, type the desired setting in the Value field, then click Set Temporary Now.

Temporary values only last for the current Sybase Central session.

◆ **Set Permanent Now** To permanently change a setting for the publisher, select an option from the Options list, type the desired setting in the Value field, then click Set Temporary Now.

Permanent values last between sessions until they are explicitly changed again.

Value Select an option in the Options list and type the desired setting in the Value field. You can make the setting temporary or permanent by clicking Set Temporary Now and Set Permanent Now respectively. An option value cannot be set for an individual user ID unless there is already a PUBLIC group setting for that option.

Note

When you change options settings, some of the settings take effect immediately, while for others to take effect you must restart the database.

☞ For information about specific options, see “[Alphabetical list of options](#)” [*ASA Database Administration Guide*, page 633].

See also

- ◆ “[SET OPTION statement](#)” [*ASA SQL Reference*, page 613]
- ◆ “[Working with databases](#)” [*ASA SQL User’s Guide*, page 31]
- ◆ “[Managing User IDs and Permissions](#)” [*ASA Database Administration Guide*, page 427]

Remote User Options dialog

The Remote User Options dialog has the following components:

Remote User Displays the name of the selected remote user.

Show Provides a list of option types. For example, if you choose Database Options, only database-related options appear in the Options list.

Options list Shows the option settings and default values based on the type of options selected in the Show list. Once you select an option, you can use the buttons at the side of the dialog.

- ◆ **New** This button is not enabled when you are setting remote user options. You must open the Database Options dialog to add new options.
- ◆ **Remove Now** This button is not enabled when you are setting remote user options. You must open the Database Options dialog to remove options.
- ◆ **Set Temporary Now** To temporarily change an option setting for the consolidated user, select an option from the Options list, type the desired setting in the Value field, then click Set Temporary Now.

Temporary values only last for the current Sybase Central session.

- ◆ **Set Permanent Now** To permanently change a setting for the consolidated user, select an option from the Options list, type the desired setting in the Value field, then click Set Temporary Now.

Permanent values last between sessions until they are explicitly changed again.

Value Select an option in the Options list and type the desired setting in the Value field. You can make the setting temporary or permanent by clicking Set Temporary Now and Set Permanent Now respectively. An option value cannot be set for an individual user ID unless there is already a PUBLIC group setting for that option.

Note

When you change options settings, some of the settings take effect immediately, while for others to take effect you must restart the database.

☞ For information about specific options, see “[Alphabetical list of options](#)” [*ASA Database Administration Guide*, page 633].

See also

- ◆ “[SET OPTION statement](#)” [*ASA SQL Reference*, page 613]
- ◆ “[Working with databases](#)” [*ASA SQL User’s Guide*, page 31]
- ◆ “[Managing User IDs and Permissions](#)” [*ASA Database Administration Guide*, page 427]

Set Consolidated User dialog

The Set Consolidated User dialog has the following components:

Choose the new consolidated user from the list of candidates Lists the users from which you can select the consolidated user for the database. Select a user and click OK to grant CONSOLIDATED permissions to the selected user. Double-clicking a user grants that user CONSOLIDATE permissions and closes the dialog.

You can only select one consolidated user for the database. The name of the consolidated user appears on the SQL Remote tab of the Database property sheet.

See also

- ◆ “[GRANT CONSOLIDATE statement \[SQL Remote\]](#)” [*ASA SQL Reference*, page 508]
- ◆ “[Managing SQL Remote permissions](#)” [*SQL Remote User’s Guide*, page 201]

Set Clustered Index dialog

Clustered indexes are supported for Adaptive Server Anywhere databases that are version 8.0.2 and higher.

The Set Clustered Index dialog has the following components:

Table Shows the name of the table for which you are specifying a clustered index.

Specify an index on this table to be clustered Select this option to enable the list of indexes below where you specify which index is to be clustered.

Indexes list Shows all the indexes for the table. Select an index from the list and then click OK to specify a clustered index. Note that only one index on a table can be a clustered index.

See also

- ◆ “[CREATE INDEX statement](#)” [*ASA SQL Reference*, page 368]
- ◆ “[Using clustered indexes](#)” [*ASA SQL User’s Guide*, page 63]

Set Primary Key dialog

The Set Primary Key dialog has the following components:

Table Shows the name of the selected table.

Specify a primary key for this table Select this option to enable the options below where you can name and choose a primary key for the selected table.

Name Shows the name of the primary key. You can edit the name in the adjacent field. Primary keys can be named for tables in Adaptive Server Anywhere databases that are version 9 and higher.

Columns list Shows all the columns in the table. Place a checkmark in the checkbox beside the column name to make the column a primary key column. Clear the checkbox to remove a column from the primary key.

Create a clustered primary key Select this option if you want the primary key to have a clustered index. Note that only one index on a table can be a clustered index.

See also

- ◆ “Managing primary keys” [*ASA SQL User’s Guide*, page 45]
- ◆ “Using clustered indexes” [*ASA SQL User’s Guide*, page 63]

Set Publisher dialog

The Set Publisher dialog has the following components:

Choose the new publisher from the list of candidates Lists the users you can select the publisher from. Select a user and click OK to grant PUBLISH permissions to the selected user. Double-clicking a user grants that user PUBLISH permissions and closes the dialog.

You can only select one publisher for the database.

See also

- ◆ “GRANT PUBLISH statement [SQL Remote]” [*ASA SQL Reference*, page 510]
- ◆ “Managing SQL Remote permissions” [*SQL Remote User’s Guide*, page 201]

Set Service Group dialog

The Set Service Group dialog has the following components:

New service group Select this option to create a new service group to assign the selected service to.

- ◆ **Service group name** Type the name of the new service group when

you select New Service Group above.

Existing service group Select this option if you want to assign the selected service to be a member of an existing service group.

◆ **Service groups list** Lists all the existing service groups. The list is enabled when you select the Existing Service Group option. To assign the selected service to a service group, select an existing service group from the list and click OK. Double-clicking a service group assigns the service to that service group and closes the dialog.

See also

◆ [“Running more than one service”](#) [*ASA Database Administration Guide*, page 31]

Start Database dialog

The Start Database dialog has the following components:

Server Shows the name of the selected server on which the database is started.

Database file Type the full path and name of the Adaptive Server Anywhere database file or write file on the server machine. For example, to start the sample database, type C:\Program Files\Sybase\SQL Anywhere 9\asademo.db.

You can also click Browse to locate the file.

Encryption key Enter the encryption key to start the database. You must supply the encryption key to start a database that is strongly encrypted. This field is only enabled for strongly encrypted databases.

☞ For more information, see [“Encrypting a database”](#) [*SQL Anywhere Studio Security Guide*, page 15] and [“Creating a database using the dbinit command-line utility”](#) [*ASA Database Administration Guide*, page 531].

Database name Type a name for the database you are connecting to. You can use a database name to provide a more meaningful name than the file name for users of client applications. Since more than one database can run on a database server at one time, supplying a database name lets you distinguish between databases running on the same server. The name you supply identifies the database until it is stopped.

The database name is optional. If you don't supply a database name, the default database name is the root of the Database file name (the file name without the .db extension). For example, if you have a database called sample.db, the default database name is sample.

Stop database after last disconnect Select this option to shut down the database when the last connection to it closes.

This option is different from the `-ga` server option, which automatically stops the database server itself.

See also

- ◆ “Running the Database Server” [*ASA Database Administration Guide*, page 3]
- ◆ “Working with databases” [*ASA SQL User’s Guide*, page 31]

Trigger Event dialog

The Trigger Event dialog has the following components:

Event Displays the name and owner of the event.

Parameters Type any event parameters in this field in the form **name=value,name=value...**

If the event does not require any parameters, click OK to trigger the event.

This dialog allows you to explicitly supply parameters in order to simulate a context for the event handler. You can use this dialog to test trigger conditions such as disk space restrictions (when a disk fills beyond a specified percentage) or other trigger conditions that are required to trigger an event handler.

For example, you can have an event that takes different actions depending which user ID is connected to the database: calling the event parameter (‘User’) in the event handler does this. To simulate triggering this event for the user P_Chin, type the following in the Parameters text box:

```
"User"=' P_Chin '
```

The word User must be contained in double quotes because it is a reserved word in SQL.

See also

- ◆ “TRIGGER EVENT statement” [*ASA SQL Reference*, page 641]
- ◆ “EVENT_CONDITION function [System]” [*ASA SQL Reference*, page 148]
- ◆ “CREATE EVENT statement” [*ASA SQL Reference*, page 351]
- ◆ “Automating Tasks Using Schedules and Events” [*ASA Database Administration Guide*, page 301]

Unload Data dialog

The Unload Data dialog has the following components:

Save the data files on the server computer using UNLOAD statements

Select this option to export data to files on the server machine. Selecting this option places an exclusive lock on the whole table while you are unloading

it. UNLOAD statements provide better performance than OUTPUT statements. In the file, the data is exported with one row per line, values are separated by a comma delimiter, and strings are enclosed in single quotes. The Browse button is disabled if you select this option and the database is running on a different computer.

Save the data files on the local computer using OUTPUT statements

Select this option to export data files on the local computer. In the file, the data is exported with one row per line, values are separated by a comma delimiter, and strings are enclosed in single quotes

Save the data in the following directory Type the directory where you want the data saved. If you choose to save the data files on the server computer, relative file names specify files relative to the database server's starting directory. You can click Browse to locate the directory where you want to save the files.

Order data by primary key Select this option to order the exported data in order by primary key values to make reloading quicker.

Save the reload file to the following file on the local computer Type a name and location for the *reload.sql* file that is used to reload the data.

Use LOAD statements to reload the data from the server computer

Select this option to use LOAD statements to reload the data. LOAD statements provide better performance than INPUT statements.

☞ For more information, see “Using the LOAD TABLE statement to import data” [*ASA SQL User's Guide*, page 563].

Use INPUT statements to reload the data from the local computer

Select this option to use INPUT statements to reload the data.

See also

- ◆ “UNLOAD TABLE statement” [*ASA SQL Reference*, page 648]
- ◆ “OUTPUT statement [Interactive SQL]” [*ASA SQL Reference*, page 556]
- ◆ “LOAD TABLE statement” [*ASA SQL Reference*, page 538]
- ◆ “INPUT statement [Interactive SQL]” [*ASA SQL Reference*, page 523]

Update JAR File dialog

The Update JAR file dialog has the following components:

Where is the updated JAR file located? In the text box, type the path of the JAR file that you want to update. If you don't know the path, you can click the Browse button to search for the file. For example,
C:\ProgramFiles\Sybase\Shared\java\Silver.jar.

Install all classes Select this option if you want to install all the classes in

this JAR file.

Install selected classes Select this option to identify specific classes to install from the selected JAR file. Separate each class with a comma. You can click the Select button to view a list of classes in the selected JAR file.

- ◆ **Select All** Installs all the classes in the JAR file list.
- ◆ **Clear All** Clears all the classes in the JAR file list so they are not installed.

See also

- ◆ [“Using Java in the Database” \[ASA Programming Guide, page 81\]](#)

Update Java Class dialog

The Update Java Class dialog has the following components:

Where is the updated Java Class file located? Type the complete path of the Java class that you want to update. For example, **C:\my classes\Utility.class**.

Alternatively, you can click the Browse button to search for the Java class.

See also

- ◆ [“Using Java in the Database” \[ASA Programming Guide, page 81\]](#)
- ◆ [“Updating classes and Jars” \[ASA Programming Guide, page 91\]](#)

User Options dialog

The User Options dialog has the following components:

User Displays the name of the selected user.

Show Provides a list of option types. For example, if you choose Database Options, only database-related options appear in the Options list.

Options list Shows the option settings and default values based on the type of options selected in the Show list. Once you select an option, you can use the buttons at the side of the dialog.

- ◆ **New** This button is not enabled when you are setting user options. You must open the Database Options dialog to add new options.
- ◆ **Remove Now** This button is not enabled when you are setting user options. You must open the Database Options dialog to remove options.
- ◆ **Set Temporary Now** To temporarily change an option setting for a user, select an option from the Options list, type the desired setting in the Value field, then click Set Temporary Now.

Temporary values only last for the current Sybase Central session.

-
- ◆ **Set Permanent Now** To permanently change a setting for a user, select an option from the Options list, type the desired setting in the Value field, then click Set Temporary Now.

Permanent values last between sessions until they are explicitly changed again.

Value Select an option in the Options list and type the desired setting in the Value field. You can make the setting temporary or permanent by clicking Set Temporary Now and Set Permanent Now respectively. An option value cannot be set for an individual user ID unless there is already a PUBLIC group setting for that option.

Note

When you change options settings, some of the settings take effect immediately, while for others to take effect you must restart the database.

☞ For information about specific options, see [“Alphabetical list of options” \[ASA Database Administration Guide, page 633\]](#).

See also

- ◆ [“SET OPTION statement” \[ASA SQL Reference, page 613\]](#)
- ◆ [“Working with databases” \[ASA SQL User’s Guide, page 31\]](#)
- ◆ [“Managing User IDs and Permissions” \[ASA Database Administration Guide, page 427\]](#)

Windows CE Message Types for SQL Remote dialog

The Windows CE Message Types for SQL Remote dialog has the following components:

Your Windows CE device has the following message types This window lists the available message types for your Windows CE device. To select a message type for SQL Remote replication, select a message type from the list and click OK.

- ◆ The supported message types are FILE, FTP, and SMTP.

The selected message type has the following parameters This window lists the name and value for each parameter for the selected message type.

- ◆ **Name** Lists the parameter names for the selected message type.
- ◆ **Value** Shows the value for the parameter for the selected message type. You can change the value by clicking in the field and typing a different value.

The following tables list the parameters for each of the supported SQL Remote message types.

FILE message control parameters

Name	Values	Default	Description
Directory	String	''	Set to the directory under which the messages are stored. The setting is an alternative to the SQLREMOTE environment variable.
Debug	YES, NO	NO	When set to YES, all file system calls made by the FILE link are displayed.
Unlink_ delay	Integer	Pause for 1 second after first failed attempt, 2 seconds after second failed attempt, etc.	Set to the number of seconds to wait before attempting to delete a file if the previous attempt to delete the file failed.

☞ For more information about the FILE message system, see “The file message system” [*SQL Remote User’s Guide*, page 215].

FTP message control parameters

Name	Values	Default	Description
Host	String	''	The host name or IP address of the computer where the messages are stored.
User	String	''	The user name for accessing the ftp host.
Password	String	''	The password for accessing the ftp host.
Root_Directory	String	''	The root directory within the ftp host site under which the messages are stored.
Port	String	''	The IP port number used for the ftp connection. This is usually not required.
Debug	YES, NO	NO	This parameter controls whether debugging output appears.

Name	Values	Default	Description
Active_Mode	YES, NO	NO	<p>This parameter controls whether the client or the server initiates all data transfer connections.</p> <p>When this parameter is set to NO, (Passive mode) the client initiates all data transfer connections, in this case the message link.</p> <p>When this parameter is set to YES (Active mode) the server initiates all data connections.</p> <p>If your FTP server is sitting behind an incorrectly configured firewall you may not be able to use the default passive transfer mode.</p> <p>For more information about this parameter, see “Troubleshooting ftp problems” [<i>SQL Remote User’s Guide</i>, page 217].</p>

☞ For more information about the FTP message system, see [“The ftp message system”](#) [*SQL Remote User’s Guide*, page 216].

SMTP message control parameters

Name	Values	Default	Description
Local_Host	String		<p>The name of the local computer. The local host name is required to initiate a session with any SMTP server. In most network environments, the local host name can be determined automatically and you do not need to supply this value.</p>

Name	Values	Default	Description
TOP_Supported	YES, NO	YES	SQL Remote uses a POP3 command called TOP when enumerating incoming messages. The TOP command may not be supported by all POP servers. Set this value to NO to use the RETR command, which is less efficient but works with all POP servers.
SmtP_Host	String	''	The name of the computer on which the SMTP server is running. It corresponds to the SMTP host field in the SMTP/POP3 login dialog.
Pop3_Host	String	''	The name of the computer on which the POP host is running. It corresponds to the POP3 host field in the SMTP/POP3 login dialog.
Pop3_Userid	String	''	The POP user ID corresponds to the user ID field in the SMTP/POP3 login dialog.
Pop3_password	String	''	The POP password corresponds to the password field in the SMTP/POP3 login dialog.
Debug	YES, NO	NO	This parameter controls whether debugging information appears. When set to YES, SMTP and POP3 commands and responses appear.

☞ For more information about the SMTP message system, see “The SMTP message system” [*SQL Remote User’s Guide*, page 218].

See also

- ◆ “Working with message types” [*SQL Remote User’s Guide*, page 210]
- ◆ “Using message types” [*SQL Remote User’s Guide*, page 210]

Debugger help

The following sections describe the dialogs available in the Sybase debugger.

☞ For more information about using the debugger, see [“Debugging Logic in the Database” \[ASA SQL User’s Guide, page 719\]](#).

Debugger Add Watch dialog

Enter a SQL expression (for stored procedures) or Java expression (for Java classes) to watch. The expression appears in the Watch window when Sybase Central is running a Debug task.

For example, to track the SQLSTATE value when debugging stored procedures, just enter SQLSTATE.

See also

◆ [“Expressions” \[ASA SQL Reference, page 16\]](#)

Debugger Breakpoints dialog

The Debugger Breakpoints dialog has the following components:

All breakpoints A list of all breakpoints in the current database.

Close Close the Breakpoints dialog.

Edit Edit the currently selected breakpoint. For example, you can set or modify a condition that must be satisfied before the breakpoint interrupts execution.

View Code Close the Breakpoints dialog and show code for the selected breakpoint.

Enable Enable the selected breakpoint, so that it interrupts execution. The breakpoint is shown as a red circle in the code window.

Disable Disable the selected breakpoint, so that it does not interrupt execution. The breakpoint is shown as a gray circle in the code window.

Remove Delete the selected breakpoint from the list.

New Breakpoint Create a new breakpoint.

See also

◆ [“Working with breakpoints” \[ASA SQL User’s Guide, page 731\]](#)

Debugger Edit or Add Breakpoint dialog

The Debugger Edit or Add Breakpoint dialog has the following components:

Server The database server to which the breakpoint applies.

Database The database to which the breakpoint applies.

Procedure For SQL procedures, the stored procedure to which the breakpoint applies.

Class For Java classes, the class to which the breakpoint applies.

Condition A condition that must evaluate to true for the breakpoint to interrupt execution.

The condition does not have to depend only on variables within the procedure. For example, you can set a breakpoint to apply to a connection made by a specified user, you can enter the following condition:

```
CURRENT USER = 'user-name'
```

☞ For more information, see “Search conditions” [*ASA SQL Reference*, page 23].

Count The number of times the breakpoint is skipped before it interrupts execution. A value of 0 means that the breakpoint always stops execution.

Enable this breakpoint Check this box for the breakpoint to interrupt execution.

See also

- ◆ “Editing breakpoint conditions” [*ASA SQL User’s Guide*, page 732]

Debugger Java Source dialog

The Debugger Java Source dialog has the following components:

List of folders A list of folders or individual files where the debugger looks for Java source.

Browse Folder Locate a folder to add to the list.

Browse File Locate an individual file to add to the list.

See also

- ◆ “Creating a class” [*ASA Programming Guide*, page 89]

Index Consultant

The Index Consultant guides you in the proper selection of indexes for your database. It guides you through the process of selecting indexes for a single query or for a set of database requests (called a **workload**). It creates many different sets of virtual indexes. For each set, the Index Consultant optimizes queries and other requests as if those virtual indexes were present. The Index Consultant then gathers the results of these explorations into a set of recommendations.

See also

- ◆ [“Index Consultant overview”](#) [*ASA SQL User’s Guide*, page 67]
- ◆ [“Understanding the Index Consultant”](#) [*ASA SQL User’s Guide*, page 70]
- ◆ [“Understanding workloads”](#) [*ASA SQL User’s Guide*, page 70]
- ◆ [“Understanding the analysis”](#) [*ASA SQL User’s Guide*, page 71]
- ◆ [“Understanding the recommendations”](#) [*ASA SQL User’s Guide*, page 72]
- ◆ [“Assessing the recommendations”](#) [*ASA SQL User’s Guide*, page 74]
- ◆ [“Implementing the recommendations”](#) [*ASA SQL User’s Guide*, page 75]

CHAPTER 4

Interactive SQL Help

About this chapter

This chapter provides descriptions of all the dialog boxes and wizards you can access in Interactive SQL.

Contents

Topic:	page
About Interactive SQL	154
Introduction to Interactive SQL dialog boxes	156
Interactive SQL wizards	170

About Interactive SQL

The following table provides a guide to where you can look for information about how to run and use Interactive SQL.

If you want to know...	Then see...
How to start Interactive SQL	“Lesson 2: The Interactive SQL interface” [<i>Introducing SQL Anywhere Studio</i> , page 220]
How to connect to a database	“The Sample Database” [<i>Introducing SQL Anywhere Studio</i> , page 197]
How to use the Interactive SQL toolbar	“Interactive SQL main window description” [<i>Introducing SQL Anywhere Studio</i> , page 220]
How to open a new Interactive SQL window	“Opening multiple windows” [<i>Introducing SQL Anywhere Studio</i> , page 221]
Where to find information about keyboard shortcuts	“Interactive SQL keyboard shortcuts” [<i>Introducing SQL Anywhere Studio</i> , page 222]
How to display data	“Lesson 3: Displaying data using Interactive SQL” [<i>Introducing SQL Anywhere Studio</i> , page 226]
How to execute SQL commands in Interactive SQL	“Lesson 4: Working with SQL statements” [<i>Introducing SQL Anywhere Studio</i> , page 232]
Where to find more detailed information on selecting data	“Selecting Data from Database Tables” [<i>Introducing SQL Anywhere Studio</i> , page 139]
Where to find information about using the Query Editor to build SELECT statements	“Introducing the Query Editor” on page 226
Where to find more information on loading and unloading data	“Transferring data into and out of databases” [<i>ASA SQL User’s Guide</i> , page 556]
How to set Interactive SQL options	“Options dialog” on page 158

If you want to know...	Then see...
How to automate common tasks	“Using SQL command files” [<i>ASA SQL User’s Guide</i> , page 596]
How to use JDBC escape syntax	“Using JDBC escape syntax” [<i>ASA Programming Guide</i> , page 131]
How to print from Interactive SQL	“Printing SQL statements” [<i>Introducing SQL Anywhere Studio</i> , page 236]
How to print the graphical plan from Interactive SQL	“Graphical plans” [<i>ASA SQL User’s Guide</i> , page 461]
How to analyze queries using the Index Consultant	“Starting the Index Consultant” [<i>ASA SQL User’s Guide</i> , page 69]

Introduction to Interactive SQL dialog boxes

You can access all the dialogs in Interactive SQL through the Tools menu. With these dialogs, you can configure Interactive SQL settings, search for table and procedure names to insert into your queries, and edit your queries.

The Tools menu contains the following dialogs:

Lookup Table Name The [“Lookup Table Name dialog” on page 157](#) lets you browse table and column names and insert them into the SQL Statements pane.

Lookup Procedure Name The [Lookup Procedure Name dialog](#) lets you browse procedure names and insert them into the SQL Statements pane.

Edit Query The Query Editor provides an alternative way to create and edit SELECT statements in Interactive SQL.

☞ For information, see [“Introducing the Query Editor” on page 226](#).

Index Consultant The Index Consultant guides you in the proper selection of indexes. You can use the Index Consultant to analyze the benefits of indexes for an individual query.

☞ For more information, see [“Starting the Index Consultant” \[ASA SQL User’s Guide, page 69\]](#).

Options The [Options dialog](#) sets options for commands, appearance, importing and exporting data, and messages in Interactive SQL.

Lookup Procedure Name dialog

The Lookup Procedure Name dialog allows you to look up the names of procedures stored in the database. Once you find the procedure you are looking for, you can insert it into the SQL Statements pane at your current cursor position.

The Lookup Procedure Name dialog has the following components:

Type the first few characters of the procedure you’re looking for Type the first few characters of the procedure name in the text box to restrict the list of procedures to only those that start with the text you enter.

Click the procedure you want, then click OK Select the procedure from the list. Click OK to insert the procedure name into the SQL Statements pane at your current cursor position.

Show owner names Select this option if you want to prefix each procedure name in the list with the name of the database user who owns the

procedure.

Show system objects Select this option if you want the system-supplied stored procedures to appear in the list.

Tip

You can use the SQL wildcard characters ‘%’ (percent sign) and ‘_’ (underscore) to help narrow your search. ‘%’ matches any string of zero or more characters, while ‘_’ matches any one character.

For example, to list all the procedures that contain the word profile, type **%profile%**.

If you want to search for a percent sign or underscore within a procedure name, you must prefix the percent sign or underscore with an escape character. The escape character depends on the JDBC driver that you are using. If you are connected via jConnect, the escape character is ‘\’ (backslash) while the escape character for the iAnywhere JDBC driver is ‘~’ (tilde).

Lookup Table Name dialog

The Lookup Table Name dialog allows you to look up the names of tables and columns stored in the database that you are currently connected to. Once you find the table or column name you are looking for, you can insert it into the SQL Statements pane at your current cursor position.

The Lookup Table Name dialog has the following components:

Type the first few characters of the table you’re looking for Type the first few characters of the table name in the text box to restrict the list of tables to only those that start with the text you enter.

Click the table you want, then click OK or Show Columns Select the desired table from the list and then click OK to insert the table name into the SQL Statements pane.

You can use the following options to restrict the tables that appear in the list. If you know what type of table you are looking for, select only that type to restrict the list. You can select any or all of the table types listed below, and you can also choose to show the names of the table owner in the list.

- ◆ **Show tables** All permanent, non-system tables owned by any owner. Temporary tables do not appear in the list of tables.
- ◆ **Show system tables** All system tables.
- ◆ **Show views** All views.

-
- ◆ **Show owner names** Select this option to include table owners in the list.

Show Columns Once you select a table from the list, click Show Columns to see a list of all of the columns in the selected table. In the Select Column dialog, click OK to enter the selected column name into the SQL Statements pane at your current cursor position.

Tip

You can use the SQL wildcard characters ‘%’ (percent sign) and ‘_’ (underscore) to help narrow your search. ‘%’ matches any string of zero or more characters, while ‘_’ matches any one character.

For example, to list all the tables that contain the word profile, type **%profile%**.

If you want to search for a percent sign or underscore within a table name, you must prefix the percent sign or underscore with an escape character. The escape character depends on the JDBC driver that you are using. If you are connected via jConnect, the escape character is ‘\’ (backslash) while the escape character for the iAnywhere JDBC driver is ‘~’ (tilde).

Options dialog

You can configure Interactive SQL using the Options dialog. This dialog provides settings for commands, appearance, result sets, import/export features, messages, the appearance of the query optimization plan, and Code Editor settings.

The Interactive SQL Options dialog consists of eight tabs: General, Results, Import/Export, Messages, Plan, Editor, Query Editor, and Check For Updates.

Options dialog: General tab

The General tab of the Options dialog in Interactive SQL has the following components:

Commit The following options let you select when to commit changes to the database. You can also commit manually by entering an explicit COMMIT command whenever appropriate.

- ◆ **After each command** Select this option to commit changes to the database after each SQL statement is executed.
- ◆ **On exit** Select this option to commit changes to the database when you exit your Interactive SQL session. This is the default setting.

☞ For more information, see “[AUTO_COMMIT option \[Interactive SQL\]](#)” [*ASA Database Administration Guide*, page 638].

Command files The following options control Interactive SQL’s behavior when running command files.

- ◆ **When an error occurs** Select an option to control how Interactive SQL responds when it encounters an error while executing statements from a command file. Depending on the option you choose, Interactive SQL can continue executing the file, stop executing the file, or shut down. The default setting is Prompt.

☞ For more information about configuring how Interactive SQL responds to errors while executing statements from a command file, see “[ON_ERROR option \[Interactive SQL\]](#)” [*ASA Database Administration Guide*, page 674].

- ◆ **Echo command files to log** If you select this option, Interactive SQL logs SQL statements that are executed from command files to the log file. By default, command files are copied to the log.

☞ For more information, see “[ECHO option \[Interactive SQL\]](#)” [*ASA Database Administration Guide*, page 653].

When browsing for files, where should the browser start? Select one of the following options to specify which directory Interactive SQL uses first when browsing for files. If you wish to use this setting in subsequent Interactive SQL sessions, click Make Permanent after selecting one of the following options.

- ◆ **Last folder used** If you select this option, the initial browser directory is the one where you last used the file browser. This is the default setting.
- ◆ **Current folder** If you select this option, the initial directory used by the browser is the current folder, as defined by the operating system.

Fast Launcher The fast launcher is designed to reduce Interactive SQL’s startup time. When the fast launcher is turned on, the fast launcher process (*dbisqlg.exe* for Interactive SQL) starts when you log in. The fast launcher is only available on Windows platforms. You can change the settings for the fast launcher on the Interactive SQL Options dialog (opened by choosing Tools ► Options in Interactive SQL).

Sybase Central has its own fast launcher process (*scjview.exe*) that is turned on and off separately from the Interactive SQL fast launcher. You can configure the Sybase Central fast launcher from the Sybase Central Options dialog (opened by choosing Tools ► Options in Sybase Central).

Note that the fast launcher process requires a significant amount of memory, and the impact on application startup time depends on your system configuration.

- ◆ **Enable fast launcher** Select this option to turn on the fast launcher. The fast launcher is turned on by default. If you want to turn the fast launcher off, clear this checkbox. You must log out and log in again for these settings to take effect.

- ◆ **Configure** Opens the DBISQL Fast Launcher Configuration dialog where you can configure the TCP/IP port used by the fast launcher and set the inactivity timer.

The fast launcher uses a TCP/IP port on your machine. If another program is already using this port, you can change the port number used by the fast launcher in this dialog.

When the fast launcher is not used for the amount of time specified in the inactivity timer, it shuts down, which frees up memory for other applications. By default, the inactivity timer is set to never shut down.

File Association On Windows platforms, you can make Interactive SQL the default editor for *.SQL* files.

- ◆ **Make DBISQL the default editor for .SQL files** Select this option to make Interactive SQL the default editor for *.SQL* files on Windows.

Windows uses Interactive SQL to automatically open the file when you double-click on it. Note that Interactive SQL does not run the file automatically.

See also

- ◆ [“SET OPTION statement \[Interactive SQL\]” \[ASA SQL Reference, page 616\]](#)

Options dialog: Results tab

The Results tab of the Options dialog in Interactive SQL has the following components:

Display null values as Specify how you want nulls to appear in table columns. You can use any string for this value. The default value is (NULL). If this field is blank, null values appear as an empty string.

☞ For more information, see [“NULLS option \[Interactive SQL\]” \[ASA Database Administration Guide, page 672\]](#).

Maximum number of rows to display Specify the maximum number of rows that appear in the Results pane. The default is 500.

Truncation length Specify the number of characters that are displayed in each column in the Results pane. If you enter a value of 0, the columns are not truncated. The default is 256.

☞ For more information, see [“TRUNCATION_LENGTH option \[Interactive SQL\]” \[ASA Database Administration Guide, page 699\]](#).

Show multiple result sets Select this option if you want Interactive SQL to display multiple result sets in the Results pane when you execute a procedure that returns multiple SELECT statements. Each result set appears on a separate tab in the Results pane. By default, Interactive SQL does not display multiple result sets.

If you use the jConnect driver and select the Show Multiple Result Sets option, Interactive SQL must wait until the entire result set is retrieved before any rows appear in the Results pane. This can result in slower processing of large result sets.

Show row number Select this option if you want row numbers to appear beside your results in the Results pane. This option is on by default.

Automatically refetch results Select this option if you want Interactive SQL to automatically regenerate the result set after you execute an INSERT, UPDATE, or DELETE statement. By default, Interactive SQL refetches result sets.

☞ For more information, see [“AUTO_REFETCH option \[Interactive SQL\]” \[ASA Database Administration Guide, page 638\]](#).

When running in console mode, which result sets do you want to see? The following options let you specify which result set(s) are printed when a .SQL file is run. This option has no effect when running in windowed mode and is set on a per-machine basis. This option is set only for the current Interactive SQL unless you click the Make Permanent button.

- ◆ **The last one** Prints the result set from the last statement in the file.
- ◆ **All of them** Prints result sets for each statement in the file that returns a result set.
- ◆ **None** Does not print any result sets.

☞ For more information, see [“ISQL_PRINT_RESULT_SET option \[Interactive SQL\]” \[ASA Database Administration Guide, page 662\]](#).

Which font do you want to use to show results? Select one of the following options to specify the font that is used for table data in the Interactive SQL Results pane.

-
- ◆ **System font** Select this option to use the machine’s normal text font. This is the default setting.
 - ◆ **Editor font** Select this option to use the same font as the Code Editor.
☞ For more information about the Code Editor, see [“Format tab” on page 166](#).
 - ◆ **Custom font** Select this option to specify the font, font style, and point size you want to use. Click Browse to select the desired settings in the Font dialog.
 - ◆ [“SET OPTION statement \[Interactive SQL\]” \[ASA SQL Reference, page 616\]](#)

See also

Options dialog: Import/Export tab

The Import/Export tab of the Options dialog in Interactive SQL has the following components:

Default export format To choose a format for exporting files, select a file format from the dropdown list. By default, the export format is ASCII.

Default import format To choose a format for importing files, select a file format from the dropdown list. By default, the import format is ASCII.

☞ For more information about the import and export file formats supported by Interactive SQL, see [“INPUT statement \[Interactive SQL\]” \[ASA SQL Reference, page 523\]](#) and [“OUTPUT statement \[Interactive SQL\]” \[ASA SQL Reference, page 556\]](#).

ASCII Options Specify the default symbols used for the field separator, quote string, and escape character when you import or export data in ASCII format.

- ◆ **Default field separator** The symbol used to separate values in ASCII files. The default value is a comma (,).
- ◆ **Default quote string** The symbol used to enclose strings in ASCII files. The default value is a single quote (').
- ◆ **Default escape character** The symbol used in place of unprintable characters in ASCII files. The escape character must be one, single-byte character. The default value is a backslash (\).
- ◆ **Default encoding** The encoding used when importing and exporting files. If you change this value, it is only changed for the current Interactive SQL session. When you start a new Interactive SQL session, it is restored to its default value. The default value is **(Default)**. If you select **(Default)**, the encoding is determined as follows:

- the code page specified in the ENCODING clause of the INPUT, OUTPUT, or READ statement
- the code page specified with the DEFAULT_ISQL_ENCODING option (if this option is set)
- the code page specified with the -codepage command-line option when Interactive SQL was started
- the default code page for the computer Interactive SQL is running on

See also

- ◆ [“Importing and Exporting Data” \[ASA SQL User’s Guide, page 555\]](#)
- ◆ [“SET OPTION statement \[Interactive SQL\]” \[ASA SQL Reference, page 616\]](#)

Options dialog: Messages tab

The Messages tab of the Options dialog in Interactive SQL has the following components:

Measure execution time for SQL statements Select this option if you want Interactive SQL to measure the time it takes for a statement to execute. The time appears on the Messages tab. By default, this option is selected.

Show separate Messages pane Select this option if you want information from the database server, such as execution time, to appear in the Messages pane between the SQL Statements and Results panes rather than on the Messages tab in the Results pane. By default, database server information appears on the Messages tab in the Results pane.

Default number of lines in Messages pane Type the number of lines you want returned in the Messages pane. The default number is 7. If you select Show Separate Messages Pane, the number is also the height (in lines) of the Messages pane.

See also

- ◆ [“SET OPTION statement \[Interactive SQL\]” \[ASA SQL Reference, page 616\]](#)

Options dialog: Plan tab

The Plan tab of the Options dialog in Interactive SQL has the following components:

Execution plan options These options allow you to select the level of detail Interactive SQL provides about the way your query is optimized, select a plan type from the list of plan types. Plan information appears on the Plan tab in the Results pane.

- ◆ **Graphical plan** The execution plan is displayed as a tree diagram in the Plan tab. You can click on a node in the plan diagram to see details about

that part of the query. This plan is the default.

- ◆ **Graphical plan with statistics** The execution plan is displayed as a tree diagram in the Plan tab, and you can click on a node to see details about that part of the query. Statistics are also displayed which indicate the resources used by the part of the query that is selected.
- ◆ **Short plan** Basic information about an execution plan appears in one line on the Plan tab in the Results pane. This line lists the table(s) accessed and whether the rows are to be read sequentially or accessed through an index.
- ◆ **Long plan** Detailed information about an execution plan appears in multiple lines on the Plan tab.

☞ For more information about the different types of execution plans, see [“Accessing the plan in Interactive SQL” \[ASA SQL User’s Guide, page 468\]](#).

Assume read-only cursor Select this option if you want the query optimizer to treat the query as if it had been executed for a read-only cursor. By default, this option is not selected, indicating that the optimizer should get the plan for a read-write cursor.

☞ For more information, see [“PLAN function \[Miscellaneous\]” \[ASA SQL Reference, page 198\]](#).

Assume cursor is You can obtain a plan based on the type of cursor you specify. The query optimizer can assume the cursor is Asensitive, Insensitive, Sensitive, or Keyset-driven. The default is Asensitive.

☞ For more information, see [“PLAN function \[Miscellaneous\]” \[ASA SQL Reference, page 198\]](#), [“Asensitive cursors” \[ASA Programming Guide, page 38\]](#), [“Insensitive cursors” \[ASA Programming Guide, page 35\]](#), [“Sensitive cursors” \[ASA Programming Guide, page 36\]](#), and [“Value-sensitive cursors” \[ASA Programming Guide, page 39\]](#).

Show UltraLite plan Select this option if you want the UltraLite plan to appear on a separate tab in the Results pane in Interactive SQL.

You control the UltraLite plan type by selecting one of the types above (Graphical, Graphical Plan With Statistics, Short Plan, or Long Plan). This option is selected by default.

☞ For more information, see [“GRAPHICAL_ULPLAN function \[Miscellaneous\]” \[ASA SQL Reference, page 158\]](#), [“LONG_ULPLAN function \[Miscellaneous\]” \[ASA SQL Reference, page 178\]](#), and [“SHORT_ULPLAN function \[Miscellaneous\]” \[ASA SQL Reference, page 220\]](#).

See also

- ◆ [“Accessing the plan in Interactive SQL” \[ASA SQL User’s Guide, page 468\]](#)

- ◆ “Reading access plans” [*ASA SQL User’s Guide*, page 451]

Options dialog: Editor tab

This tab allows you to configure the appearance of text typed in the SQL Statements pane. Note that any settings you specify on this tab also apply to the Code Editor when it is used in Sybase Central.

The Editor tab of the Options dialog in Interactive SQL consists of four tabs: Editor, Tabs, Format, and Print.

Editor tab

The Editor tab has the following components:

Vertical scroll bar Shows or hides a vertical scroll bar when the window is too small to contain all the text.

Horizontal scroll bar Shows or hides a horizontal scroll bar when the window is too small to contain all the text.

Tabs tab

The Tabs tab has the following components:

Tab size Lets you set the tab size (in number of spaces).

Indent size Lets you set the size of indents (in number of spaces).

Insert spaces Inserts n spaces when you press Tab instead of inserting one tab character. The value for n will be between one and the number of indent size spaces, depending on how many spaces are required to move the cursor forward to the next tab stop.

Keep tabs Inserts a tab character into the document and moves the cursor forward to the next tab stop when you press Tab.

Auto indent Lets you set the auto indent feature. You have the following options:

- ◆ **None** disables the feature.
- ◆ **Default** uses the tab and indent sizes that are set.
- ◆ **Smart** uses previous lines of code as a guideline for indenting open and closing braces.
 - **Indent opening brace** Select this option if you wish opening braces to be indented. This option is enabled when the Smart option is selected.
 - **Indent closing brace** Select this option if you wish closing braces to be indented. This option is enabled when the Smart option is selected.

Sample The Sample field shows an example of how code is formatted based on the options you choose for indenting opening and closing braces.

Format tab

The Format tab has the following components:

Text Highlighting Lets you specify the color and style of different types of text in the main editing window. Choose a type of text and then set the foreground, background, and style for that text type.

- ◆ **Foreground** Foreground refers to the color of the text.
- ◆ **Background** Background refers to the color of the screen behind the text.
- ◆ **Style** Lets you specify the type of formatting for a text type. You have the following choices:
 - Plain
 - Italic
 - Bold
 - Italic and Bold

Font size Lets you specify the font point size of the text that appears in the SQL Statements pane.

Caret color Lets you specify the color of the blinking on-screen cursor indicator.

Sample Shows an updated sample of the text with the settings you configure above.

Reset All Returns all settings to their default values.

Print tab

The Print tab has the following components:

Header Lets you specify what information appears in the header, as well as how it is formatted, when you print the contents of the SQL Statements pane. The header text is left aligned by default. Press the > button for a list of available options.

Footer Lets you specify what information appears in the footer, as well as how it is formatted, when you print the contents of the SQL Statements pane. The footer text is left aligned by default. Press the > button for a list of available options.

- ◆ **> button** Pressing the > button lets you choose from the following options for the header or footer:
 - File Name
 - File Time
 - File Date
 - Page Number

- Page Count
- Current Time
- Current Date
- Left Align
- Center
- Right Align

The items that you select do not all need to have the same alignment. For example, you can choose to left align the file name and right align the date in the header. By default, all text in both the header and the footer is left aligned. You must specify the alignment before the type of text. For example, if you want the file name to be centered in the header, type **&C&F** in the Header field, or press the > button and select the Center option and then press the > button again and select the Filename option.

In addition to specifying these options, you can type text that you want to appear in the header and footer fields. For example, if you type **Page &P of &p** in the Footer field, **Page 1 of 1** appears in the footer of the printed document.

Font size Lets you select the font point size for the printed text.

Options dialog: Query Editor tab

This tab allows you to configure settings for the Query Editor.

The Query Editor tab of the Interactive SQL Options dialog has the following components:

Fully qualify table and column names Select this option if you want table and column names to be fully qualified with their owner names when constructing queries in the Query Editor.

☞ For information about qualifying table and column names, see “[SQL queries](#)” [*ASA SQL User’s Guide*, page 215].

Quote names Select this option if you want the names of identifiers to be enclosed in double quotes when constructing queries in the Query Editor.

☞ For information about quoting identifiers, see “[Identifiers](#)” [*ASA SQL Reference*, page 7].

Get list of tables on startup Select this option if you want the Query Editor to populate its list of tables as soon as it opens. This option is selected by default. If you are connected to a database with a large number of tables or have a slow communications link, you may wish to turn this option off so the Query Editor opens more quickly.

Options dialog: Check for Updates tab

This tab allows you to configure whether Adaptive Server Anywhere should check for software updates and how often it should do so. Checking for updates is done on application startup.

You can also check for updates any time from the Start menu by choosing Programs ► SQL Anywhere 9 ► Check For Updates and from the Sybase Central, Interactive SQL, and Console utility Help menus.

The Check For Updates tab of the Options dialog has the following components:

When to check for updates Choose one of the following options to specify how often Adaptive Server Anywhere should check for updates. By default, Never is selected.

- ◆ **On application startup** Select this option if you want Interactive SQL to check for updates each time the current application is launched.
- ◆ **Daily** Select this option if you want Adaptive Server Anywhere to check for updates the first time the current application is started each day.
- ◆ **Weekly** Select this option if you want Adaptive Server Anywhere to check for updates the first time the current application is started each week.
- ◆ **Monthly** Select this option if you want Adaptive Server Anywhere to check for updates the first time the current application is started each month.
- ◆ **Never** Select this option if you do not want Interactive SQL to check for updates. This is the default setting.

What to check for Choose any combination of the following options to specify what types of updates Interactive SQL should check for. By default, all of the following options are selected.

- ◆ **Express Bug Fix** Select this option if you want Interactive SQL to check for Express Bug Fixes.

An express bug fix is a subset of the software with one or more bug fixes. The bug fixes are listed in the release notes for the update. Bug fix updates may only be applied to installed software with the same version number. Some testing has been performed on the software, but the software has not undergone full testing. You should not distribute these files with your application unless you have verified the suitability of the software yourself.

- ◆ **Maintenance Release** Select this option if you want Interactive SQL to check for maintenance releases of the software.

A maintenance release is a complete set of software that upgrades installed software from an older version with the same major version number (version number format is *major.minor.patch.build*). Bug fixes and other changes are listed in the release notes for the upgrade.

- ◆ **Other Information** Select this option to check for other information, such as new product releases or upcoming events.

Interactive SQL wizards

Interactive SQL provides an Export wizard to walk you through the process of exporting result sets.

Export wizard

The Export dialog allows you to set options when exporting a result set to a file in Interactive SQL.

File name Type the name of the file you are exporting the result set to. Alternatively, you can click **Browse** to locate a file.

Format Select one of the following output formats:

- ◆ **ASCII** The output is an ASCII format file with one row per line in the file. All values are separated by commas, and strings are enclosed in apostrophes (single quotes).
Three other special sequences are also used. The two characters `\n` represent a newline character, `\\` represents a single `\`, and the sequence `\xDD` represents the character with hexadecimal code `DD`. This is the default output format.
- ◆ **dBase II** The output is a dBASE II format file with the column definitions at the top of the file. Note that a maximum of 32 columns can be output. Column names are truncated to 11 characters, and each row of data in each column is truncated to 255 characters.
- ◆ **dBase III** The output is a dBASE III format file with the column definitions at the top of the file. Note that a maximum of 128 columns can be output. Column names are truncated to 11 characters, and each row of data in each column is truncated to 255 characters.
- ◆ **Excel** The output is an Excel 2.1 worksheet. The first row of the worksheet contains column labels (or names if there are no labels defined). Subsequent worksheet rows contain the actual table data.
- ◆ **Fixed** The output is fixed format with each column having a fixed width. The width for each column can be specified using the `COLUMN WIDTHS` clause. No column headings are output in this format. If the `COLUMN WIDTHS` clause is omitted, the width for each column is computed from the data type for the column, and is large enough to hold any value of that data type. The exception is that `LONG VARCHAR` and `LONG BINARY` data defaults to 32 kb.
- ◆ **FoxPro** The output is a FoxPro format file (the FoxPro memo field is different than the dBASE memo field) with the column definitions at the

top of the file. Note that a maximum of 128 columns can be output. Column names are truncated to 11 characters. Column names are truncated to 11 characters, and each row of data in each column is truncated to 255 characters.

- ◆ **HTML** The output is in the Hyper Text Markup Language format.
- ◆ **Lotus 1-2-3** The output is a Lotus WKS format worksheet. Column names will be put as the first row in the worksheet. Note that there are certain restrictions on the maximum size of Lotus WKS format worksheets that other software (such as Lotus 1-2-3) can load. There is no limit to the size of file Interactive SQL can produce.
- ◆ **SQL Statements** The output is an Interactive SQL INPUT statement required to recreate the information in the table.
- ◆ **XML** The output is an XML file encoded in UTF-8 and containing an embedded DTD. Binary values are encoded in CDATA blocks with the binary data rendered as 2-hex-digit strings. The INPUT statement does not accept XML as a file format.

Encoding Specify the code page that is used to write the file. You can only specify this option if you have selected the **ASCII** format. You can specify the encoding to be used, or if you select (**Default**), the default encoding for the machine Interactive SQL is running on is used.

Escape text data When you select this option, characters following the escape character are recognized and interpreted as special characters by the database server. The default escape character is the backslash (\). New line characters can be included as the combination \n, other characters can be included in data as hexadecimal ASCII codes, such as \x09 for the tab character. A sequence of two backslash characters (\\) is interpreted as a single backslash. A backslash followed by any character other than n, x, X or \ is interpreted as two separate characters. For example, \q inserts a backslash and the letter q.

- ◆ **Escape character** You can specify the escape character for characters stored as hexadecimal codes. The default escape character is the backslash (\).

See also

- ◆ “OUTPUT statement [Interactive SQL]” [*ASA SQL Reference*, page 556]

CHAPTER 5

MobiLink Help

About this chapter

This chapter provides descriptions of all the property sheets, dialog boxes, and wizards you can access when you connect using the MobiLink plug-in.

Contents

Topic:	page
Introduction	174
MobiLink property sheets	175
MobiLink dialog boxes	192
MobiLink wizards	195

Introduction

When you connect to MobiLink, Sybase Central provides property sheets that let you configure object properties. You can view and change the settings for various objects using dialog boxes, while wizards can walk you through the steps for carrying out common administrative tasks.

See also

- ◆ [“MobiLink property sheets” on page 175](#)
- ◆ [“MobiLink dialog boxes” on page 192](#)
- ◆ [“MobiLink wizards” on page 195](#)

MobiLink property sheets

This section contains detailed descriptions of each MobiLink property sheet where you can view and configure an object's properties. When you are connected to MobiLink, each property sheet becomes available in the Sybase Central File menu when you select an object, or in a popup menu when you right-click an object.

Carrier property sheet

The Carrier property sheet consists of three tabs: General, Identification, and SMTP.

Carrier property sheet: General tab


Properties are read at startup. When you change properties, you must shut down and restart the MobiLink synchronization server for them to take effect.

The General tab of the Carrier property sheet has the following components:

Name Shows the name of the carrier. You can change the name of the carrier in this field.

Type Shows the type of object.

Enable this carrier Select this option to use this carrier. You can define and use multiple carrier mappings.

 For more information, see “enable property” [*MobiLink Server-Initiated Synchronization User's Guide*, page 74].

Description Provides a place for you to type a text description of this carrier.

See also

- ◆ “Setting properties” [*MobiLink Server-Initiated Synchronization User's Guide*, page 15]
- ◆ “Configuring gateways and carriers” [*MobiLink Server-Initiated Synchronization User's Guide*, page 20]

Carrier property sheet: Identification tab

Properties are read at startup. When you change properties, you must shut down and restart the MobiLink synchronization server for them to take effect.

The Identification tab of the Carrier property sheet has the following components:

Network Provider ID Type the network provider ID.

☞ For more information, see “[network_provider_id property](#)” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 75].

See also

- ◆ “[Setting properties](#)” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 15]
- ◆ “[Configuring gateways and carriers](#)” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 20]

Carrier property sheet: SMTP tab

Properties are read at startup. When you change properties, you must shut down and restart the MobiLink synchronization server for them to take effect.

The SMTP tab of the Carrier property sheet has the following components:

User Prefix Type the prefix used in e-mail addresses

☞ For more information, see “[sms_email_user_prefix property](#)” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 75].

Domain Type the domain of the carrier.

☞ For more information, see “[sms_email_domain property](#)” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 75].

See also

- ◆ “[Setting properties](#)” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 15]
- ◆ “[Configuring gateways and carriers](#)” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 20]

Database property sheet

The Database property sheet allows you to view information about the database you are currently connected to.

The Database property sheet consists of one tab: General.

Database property sheet: General tab

The General tab of the Database property sheet has the following components:

Name Shows the name of the selected database.

Type Shows the type of database.

Version Shows the version number of the selected database.

Device Tracker Gateway property sheet

The Device Tracker Gateway property sheet consists of three tabs: General, Gateways, and Delivery.

Device Tracker Gateway property sheet: General tab

Properties are read at startup. When you change properties, you must shut down and restart the MobiLink synchronization server for them to take effect.

The General tab of the Device Tracker Gateway property sheet has the following components:

Name Shows the name of the gateway. You can change the name of the gateway in this field.

Type Shows the type of object.

Enable this gateway Select this option to use this gateway.

☞ For more information, see “enable property” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 69].

Description Provides a place for you to type a text description of the device tracker gateway.

See also

- ◆ “Device tracker gateway properties” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 68]
- ◆ “Device tracking” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 22]

Device Tracker Gateway property sheet: Gateways tab

Properties are read at startup. When you change properties, you must shut down and restart the MobiLink synchronization server for them to take effect.

The Gateways tab of the Device Tracker Gateway property sheet has the following components:

Use these gateways for device tracking Select one of the following options to specify the gateways that are used for device tracking.

- ◆ **Only the UDP gateway** Select this option if you wish to identify a UDP gateway that the device tracker might use. The gateway must be enabled. A device tracker gateway can only use one UDP gateway.
- ◆ **Only the SMTP gateway** Select this option if you wish to identify an

SMTP gateway that the device tracker might use. The gateway must be enabled. A device tracker gateway can only use one SMTP gateway.

- ◆ **Both the UDP gateway and the SMTP gateway** Select this option if you wish to identify a UDP gateway and an SMTP gateway that the device tracker might use. The gateways must be enabled. The device tracker gateway can only use one UDP gateway and one SMTP gateway.

UDP gateway Select the UDP gateway used by the device tracker. The default is Default-UDP. This option is only enabled if you choose Only the UDP Gateway or Both the UDP Gateway and the SMTP Gateway option above.

☞ For more information, see “[udp_gateway property](#)” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 69].

SMTP gateway Select the SMTP gateway used by the device tracker. The default is Default-SMTP. This option is only enabled if you choose Only the SMTP Gateway or Both the UDP Gateway and the SMTP Gateway option above.

☞ For more information, see “[smtp_gateway property](#)” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 69].

See also

- ◆ “[Device tracker gateway properties](#)” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 68]
- ◆ “[Device tracking](#)” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 22]

Device Tracker Gateway property sheet: Delivery tab

The Delivery tab of the Device Tracker Gateway property sheet has the following components:

Confirm message delivery Select this option if you want the Listener to initiate synchronization when it receives a message to confirm with the consolidated database that the message was received. The Listener must be started with the -x option in order to provide connection information. This option is turned on by default.

See also

- ◆ “[Device tracker gateway properties](#)” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 68]
- ◆ “[Device tracking](#)” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 22]
- ◆ “[confirm_delivery property](#)” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 68]

Global Notification property sheet

The Global Notification property sheet consists of one tab: General.

Global Notification property sheet: General tab

Properties are read at startup. When you change properties, you must shut down and restart the MobiLink synchronization server for them to take effect.

The General tab of the Global Notification property sheet has the following components:

Verbosity Specify the level of verbosity for all Notifiers, gateways, and carriers. You must choose one of the following levels:

- ◆ **No tracing (level 0)** Do not use tracing. This is the default setting.
 - ◆ **Startup and shutdown tracing (level 1)** Use a startup, shutdown, and property trace.
 - ◆ **Show notifications (level 2)** Display notification messages.
 - ◆ **Full tracing (level 3)** Use a poll-level trace.
- See also
- ◆ “verbosity property” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 56]

Notifier property sheet

The Notifier property sheet consists of four tabs: General, Connection, Polling, and Logic.

Notifier property sheet: General tab

Properties are read at startup. When you change properties, you must shut down and restart the MobiLink synchronization server for them to take effect.

The General tab of the Notifier property sheet has the following components:

Name Shows the name of the Notifier. You can change the name of the Notifier in this field.

Type Shows the type of object.

Enable this notifier Select this option to be able to use this Notifier.

☞ For more information, see “enable property” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 61].

Display control window when running Select this option if you want the Notifier dialog to be open on the computer where the Notifier is running. This user interface allows users to temporarily change the polling interval, or poll immediately. It can also be used to shut down the Notifier without shutting down the MobiLink synchronization server. (Once stopped, the Notifier can only be restarted by shutting down and restarting the MobiLink synchronization server.) This option is selected by default.

☞ For more information, see “gui property” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 60].

Description Provides a place for you to type a description of the Notifier.

See also

- ◆ “MobiLink Notification Properties” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 55]

Notifier property sheet: Connection tab

Properties are read at startup. When you change properties, you must shut down and restart the MobiLink synchronization server for them to take effect.

The Connection tab of the Notifier property sheet has the following components:

Isolation Level Specify an isolation level for the connection. The default isolation level is Read Committed (Level 1). You must choose one of the following:

- ◆ Read uncommitted (level 0)
- ◆ Read committed (level 1)
- ◆ Repeatable read (level 2)
- ◆ Serializable (level 3)

☞ For more information, see “isolation property” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 62] and “Isolation levels and consistency” [*ASA SQL User’s Guide*, page 106].

Connection String Specify a JDBC connection string to override the default connection behavior. This is an optional value.

By default, the Notifier uses `ianywhere.ml.script.ServerContext` to connect to the consolidated database. This means that it uses the connection string that was specified in the current `dbmlsrv9` session’s command line.

You may wish to specify a connection string in this field if you want to connect to a different database because you want notification logic and data to be separate from your synchronization data.

☞ For more information, see “[connect_string property](#)” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 59].

See also

- ◆ “[MobiLink Notification Properties](#)” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 55]

Notifier property sheet: Polling tab

Properties are read at startup. When you change properties, you must shut down and restart the MobiLink synchronization server for them to take effect.

The Polling tab of the Notifier property sheet has the following components:

Poll every Select a polling interval from the dropdown list. The default is 30 seconds.

Use this polling interval Specify a polling interval for the Notifier.

☞ For more information, see “[poll_every property](#)” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 63].

See also

- ◆ “[MobiLink Notification Properties](#)” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 55]

Notifier property sheet: Logic tab

Properties are read at startup. When you change properties, you must shut down and restart the MobiLink synchronization server for them to take effect.

The Logic tab of the Notifier property sheet has the following components:

When this notifier event occurs Select one of the following Notifier events that causes the SQL statement below to execute. When you select an event from the dropdown list, the contents of the SQL statement pane below change to the SQL statement for the selected event.

- ◆ **begin_connection** The SQL statement runs in a separate transaction after the Notifier connects to the database and before the first poll. If the Notifier loses its connection to the consolidated database, it will re-execute this transaction immediately after reconnecting.

☞ For more information, see “[begin_connection property](#)” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 57].

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- ◆ **begin_poll** The SQL statement is executed before each Notifier poll.
 - ☞ For more information, see “[begin_poll property](#)” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 58].
 - ◆ **end_connection** The SQL statement runs as a separate transaction just before a Notifier database connection is closed.
 - ☞ For more information, see “[end_connection property](#)” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 61].
 - ◆ **end_poll** The SQL statement is executed after each poll.
 - ☞ For more information, see “[end_poll property](#)” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 62].
 - ◆ **request_cursor** The SQL statement for the Notifier to collect push requests from the consolidated database. You must specify a SQL statement for this event. The result set of this statement must contain five columns, and can optionally contain two other columns. These columns can have any name, but must be in the following order in the result set:
 - request id
 - gateway
 - subject
 - content
 - address
 - resend
 - interval time to liveFor more information, see “[request_cursor property](#)” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 64].
 - ◆ **request_delete** The SQL statement specifies cleanup operations. The statement takes the request id as its only parameter. The placeholder for a parameter is a question mark (?).

You should define a SQL statement for this event unless you have provided another process to do the cleanup.

 - ☞ For more information, see “[request_delete property](#)” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 65].
 - ◆ **shutdown_query** The SQL statement is executed right after `begin_poll`. The result should contain only the value yes (or 1) or no (or 0). To shut down the Notifier, specify yes or 1.
 - ☞ For more information, see “[shutdown_query property](#)” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 66].

Execute this SQL statement Type the SQL statement that is to be executed when the specified Notifier event occurs.

See also

- ◆ [“MobiLink Notification Properties”](#) [*MobiLink Server-Initiated Synchronization User’s Guide*, page 55]

Service property sheet

The Service property sheet allows you to view information about the selected service.

The Service property sheet consists of four tabs: General, Configuration, Account, and Dependencies.

Service property sheet: General tab

The General tab of the Service property sheet has the following components:

Name Shows the name of the selected service.

Type Shows the type of the selected object. A [service](#) runs a database server or other application with a set of options.

Service type Shows the type of service. For example, it could be a MobiLink Synchronization service, Network Database Server service, or some other type of service.

Status Shows whether the selected service is started, stopped, or paused.

☞ For more information about the service status, see [“Adding, modifying, and removing services”](#) [*MobiLink Administration Guide*, page 159].

Startup type You must select one of the following startup types for the selected service. The startup type is applied the next time you start Windows.

- ◆ **Automatic** Select this option to start the service automatically whenever the operating system starts.
- ◆ **Manual** Select this option to start the service manually. Only a user with Administrator permissions can start the service if it requires manual startup.
 - ☞ For information about Administrator permissions, see your Windows documentation.

- ◆ **Disabled** Select this option to disable the service so it does not start.

See also

- ◆ [“Managing services”](#) [*ASA Database Administration Guide*, page 24]
- ◆ [“Understanding Windows services”](#) [*ASA Database Administration Guide*, page 23]

Service property sheet: Configuration tab

The Configuration tab of the MobiLink Service property sheet has the following components:

File name Type the path of the executable file. For example, `f:\Sybase\ASA90\win32\dbmlsrv9.exe`.

Parameters Type additional parameters, including file names and options, for the executable file in the text box. You can use the same options for a service that you use for the executable.

For example, to start a MobiLink synchronization service with verbose logging and three worker threads, type the following:

```
-c "dsn=ASA 9.0 Sample;uid=DBA;pwd=SQL"  
-vc  
-wu 3
```

See also

- ◆ [“The Service Creation utility” \[ASA Database Administration Guide, page 569\]](#)

Service property sheet: Account tab

The Account tab of the MobiLink Service property sheet has the following components:

Local system account Select this option to run the service under your system’s local account.

- ◆ **Allow service to interact with desktop** Select this option if you want to display the server window by clicking an icon on your desktop. This option is only available when you select Local System Account.

Other Select this option to run the service under an account other than the local account. You must choose a user ID from the dropdown list.

- ◆ **Password** Type the password for the account the service is to run under. When you select Other Account, you must supply the appropriate password for the selected user ID and confirm the password in the Confirm Password text box.
- ◆ **Confirm password** Re-type the password to confirm that it was entered correctly.

See also

- ◆ [“The Service Creation utility” \[ASA Database Administration Guide, page 569\]](#)

Service property sheet: Dependencies tab

The Dependencies tab of the MobiLink Service property sheet has the following components:

This service belongs to the following load ordering group Lets you specify which service group the selected service belongs to. To view all the service groups that exist on your system, click Change. The Look Up Group dialog appears, which lets you specify a service group for the selected service.

Change Displays the Look Up Group dialog, which lets you, select which service group the selected service belongs to.

Services list Lists all the services and service groups that must be started before the selected service. This list also shows the type of service or service group.

- ◆ **Add Services** Displays the Add Services to Dependencies dialog, which lets you view all services and select the ones you wish to add to the Services list on the Dependencies tab of the Service property sheet.
- ◆ **Add Service Groups** Displays the Add Service Groups to Dependencies dialog, which lets you select the service groups that you want to add to the Services list on the Dependencies tab of the Service property sheet.
- ◆ **Remove** Removes the selected service or service group from the Services list. The group or service no longer starts before the selected service.

See also

- ◆ [“Managing services” \[ASA Database Administration Guide, page 24\]](#)
- ◆ [“Running more than one service” \[ASA Database Administration Guide, page 31\]](#)

SMTP Gateway property sheet

The SMTP Gateway property sheet consists of four tabs: General, Server, Headers, and Delivery.

SMTP Gateway property sheet: General tab


Properties are read at startup. When you change properties, you must shut down and restart the MobiLink synchronization server for them to take effect.

The General tab of the SMTP gateway property sheet has the following components:

Name Shows the name of the gateway. You can change the name of the gateway in this field.

Type Shows the type of object.

Enable this gateway Select this option to use this gateway.

 For more information, see “enable property” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 70].

Description Provides a place for you to type a text description of this SMTP gateway.

See also

◆ “SMTP gateway properties” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 70]

SMTP Gateway property sheet: Server tab

Properties are read at startup. When you change properties, you must shut down and restart the MobiLink synchronization server for them to take effect.


The Server tab of the SMTP gateway property sheet has the following components:

Host This is the IP address of the SMTP server for sending the message to the Listener. The default is **mail**.


Authentication You can provide the user name and password for your SMTP service if they are required.

◆ **This server requires authentication** Select this option if you must supply a user name and password for your SMTP service. Selecting this option enables the fields below.

• **User** Type the user name for your SMTP service. Your SMTP service may not require a user name.

 For more information, see “user property” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 71].

• **Password** Type the password for your SMTP service.

 For more information, see “password property” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 71].

See also

◆ “SMTP gateway properties” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 70]

SMTP Gateway property sheet: Headers tab

Properties are read at startup. When you change properties, you must shut down and restart the MobiLink synchronization server for them to take effect.

The Headers tab of the SMTP gateway property sheet has the following components:

From Type the sender address of the e-mails (SMTP requests).

☞ For more information, see “[sender property](#)” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 71].

SMTP Gateway property sheet: Delivery tab

The Delivery tab of the SMTP gateway property sheet has the following components:

Client Version You can provide information about the version of the client using this gateway.

- ◆ **This gateway only supports 9.0.1 and higher clients** Select this option if all Listeners are SQL Anywhere Studio version 9.0.1 or later clients. This is the default setting.
 - **Confirm message delivery** Select this option to confirm message delivery. This setting has an effect only when sending directly through this gateway. This option is turned off by default.
 - ☞ For more information, see “[confirm_delivery property](#)” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 70].
- ◆ **This gateway only supports 9.0.0 clients** Select this option if all Listeners are SQL Anywhere Studio version 9.0.0 clients.
 - ☞ For more information about the version of Listeners, see “[listeners_are_900 property](#)” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 71].

Confirmation Timeout You must provide the amount of time before a confirmation should time out. The default confirmation timeout is 10 minutes.

☞ For more information, see “[confirm_timeout property](#)” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 70].

- ◆ **Timeout after** Select a timeout interval for confirmations from the dropdown list.

-
- ◆ **Use this timeout** Specify the timeout interval for confirmations.

See also

- ◆ “SMTP gateway properties” [*MobiLink Server-Initiated Synchronization User's Guide*, page 70]

UDP Gateway property sheet

The UDP Gateway property sheet consists of three tabs: General, Ports, and Delivery.

UDP Gateway property sheet: General tab

Properties are read at startup. When you change properties, you must shut down and restart the MobiLink synchronization server for them to take effect.

The General tab of the UDP gateway property sheet has the following components:

Name Shows the name of the gateway. You can change the name of the gateway in this field.

Type Shows the type of object.

Enable this gateway Select this option to use this gateway.

☞ For more information, see “enable property” [*MobiLink Server-Initiated Synchronization User's Guide*, page 72].

Description Provides a place for you to type a text description of this UDP gateway.

UDP Gateway property sheet: Ports tab

Properties are read at startup. When you change properties, you must shut down and restart the MobiLink synchronization server for them to take effect.

The Ports tab of the UDP Gateway property sheet has the following components:

Destination Port You can specify the port on the remote device where the gateway sends the UDP packet.

- ◆ **Use the default port (5001)** Choose this option to use the default listening port of the supplied UDP Listener (5001).

- ◆ **Use this port** Specify the port on the remote device where the gateway sends the UDP packet.

☞ For more information, see “[listener_port property](#)” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 73].

Origin Port You specify the port to use for sending the UDP packet. You may need to set it if your firewall restricts outgoing traffic.

- ◆ **Use a system-assigned port** Select this option if you want your operating system to assign a free port.
- ◆ **Use this port** Select this option to specify the port used for sending the UDP packet.

For more information, see “[sender_port property](#)” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 73].

Network Address You can optionally specify the IP address of the sender.

- ◆ **Use the default network address** Select this option to use the default network address, **localhost**.
- ◆ **Use this address** Select this option to specify the IP address of the sender. You should specify an address if you have multi-homed hosts.

☞ For more information, see “[sender property](#)” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 73].

UDP Gateway property sheet: Delivery tab

Properties are read at startup. When you change properties, you must shut down and restart the MobiLink synchronization server for them to take effect.

The Delivery tab of the SMTP gateway property sheet has the following components:

Client version You can provide information about the version of the client using this gateway.

- ◆ **This gateway only supports 9.0.1 and higher clients** Select this option if all Listeners are SQL Anywhere Studio version 9.0.1 or later clients. This is the default setting.
 - **Confirm message delivery** Select this option to confirm message delivery. This setting has an effect only when sending directly through this gateway. This option is turned off by default.

☞ For more information, see “[confirm_delivery property](#)” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 72].

- ◆ **This gateway only supports 9.0.0 clients** Select this option if all Listeners are SQL Anywhere Studio version 9.0.0 clients.

☞ For more information about the version of Listeners, see “listeners_are_900 property” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 73].

Confirmation Timeout You must provide the amount of time before a confirmation should time out. The default confirmation timeout is 10 minutes.

☞ For more information, see “confirm_timeout property” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 72].

- ◆ **Timeout after** Select a timeout interval for confirmations from the dropdown list.
- ◆ **Use this timeout** Specify the timeout interval for confirmations.

User property sheet

The User property sheet allows you to view information about the selected user.

The User property sheet consists of one tab: General.

User property sheet: General tab

The General tab of the User property sheet has the following components:

Name Shows the name of the selected MobiLink user.

Type Shows the type of the selected object.

User ID Shows an integer that uniquely identifies the selected MobiLink user.

Password Shows whether the selected MobiLink user has a password.

If the selected MobiLink user does not have a password, (none) appears in the adjacent field. If the selected MobiLink user has a password, asterisks appear in place of the actual password.

Modify Displays the User Authentication dialog where you can change the MobiLink user’s name and password.

See also

- ◆ “Authenticating MobiLink Users” [*MobiLink Clients*, page 9]
- ◆ [User Authentication dialog](#)

Version property sheet

The Version property sheet allows you to view information about the selected script version. Script versions allow you to organize your scripts

into sets, which are run under different circumstances. By specifying a particular version, MobiLink clients can select which set of synchronization scripts will be used to process the upload stream and prepare the download stream.

The Version property sheet consists of one tab: General.

Version property sheet: General tab

The General tab of the Version property sheet has the following components:

Name Shows the name of the selected script version. A script version name is a string. You can edit the version name in the text box.

Type Shows the type of the selected object. In this case, the object type is a Version.

Version ID Shows an integer that uniquely identifies the selected version.

Description Provides a place for you to type a text description of the version. For example, you could use this area to describe the version's purpose in the system.

See also

- ◆ [“Script versions”](#) [*MobiLink Administration Guide*, page 239]

MobiLink dialog boxes

You can find many of the configurable settings in MobiLink in dialog boxes, which can be accessed through the File menu Sybase Central.

The File menu contains commands related to the objects that appear in the main Sybase Central window. These menu items change depending which object you select. For example, if you select a table, the File menu shows commands and options related to tables. Likewise, if you select a user, the File menu changes to show options related to users. You can also access all of these menu items in popup menus when you right-click an object.

Share Version dialog

The Share Version dialog allows you to associate versions with more than one MobiLink event.

The Share Version dialog has the following components:

Version Select the version to indicate which scripts are executed when the Event below occurs. A version can be associated with more than one event.

Event Shows the name of the event that causes the scripts to execute.

Test Scripts dialog

You can write scripts that are associated with events so that whenever an event occurs, the MobiLink synchronization server executes the associated script if one exists. The Test Scripts dialog allows you to test your synchronization scripts.

The Test Scripts dialog has the following components:

Version Select a version to identify the set of synchronization scripts you want to test.

User Type the user name of a MobiLink Synchronization Server user. If you do not specify a user, the user <Default User> is used for testing the synchronization scripts.

Script-testing window Once you specify a version and a user, you can test your synchronization scripts by clicking Test. The test results appear in this window and include a list of which scripts are executed in which order. If there are any syntax errors or data type errors found during the test, they also appear in this window.

Test Click Test to test for syntax errors in your synchronization scripts (identified by the version). The results appear in the Script-testing window.

Options Displays the Test Scripts Options dialog where you can specify the synchronized table order for the synchronization script you are testing.

See also

- ◆ [Test Scripts Options dialog](#)

Test Scripts Options dialog

You can set options for when you test your synchronization scripts in the Test Scripts Options dialog.

The Test Scripts Options dialog has the following components:

Synchronization Tables Lists all the tables in the consolidated database that you can synchronize. Select a table from this list and click Add to add it to the Synchronized Table Order list. You can select multiple tables by holding Shift while you click.

Synchronized Table Order The order of tables in this list is the order in which the tables are synchronized when you test your synchronization scripts in the Test Scripts dialog. If you want to remove a table from this list, select a table and click Delete. You can select multiple tables by holding Shift while you click.

Add Adds tables from the Synchronization Tables list to the Synchronized Table Order list.

Delete Removes tables from the Synchronized Table Order list.

Default Adds all the tables in the Synchronization Tables list to the Synchronized Table Order list and orders them based on the order of the rows in the ml_table table.

See also

- ◆ [Test Scripts dialog](#)

User Authentication dialog

The User Authentication dialog allows you to change the name and password for a MobiLink user.

The User Authentication dialog has the following components:

User name Shows the name of the selected user. You can edit the user name in the adjacent field.

No Password Select this option if the selected user does not require a password.

Password Type the Password for the selected user. You must confirm the Password in the Confirm Password field.

Confirm password Re-type the user's password to confirm that it was entered correctly.

See also

- ◆ “authenticate_user connection event” [*MobiLink Administration Guide*, page 336]
- ◆ “Authenticating MobiLink Users” [*MobiLink Clients*, page 9]

MobiLink wizards

Wizards walk you through the steps for carrying out many common administrative tasks in MobiLink. You can also perform many of these tasks using stored procedures.

☞ For more information about MobiLink stored procedures, see “[Stored Procedures](#)” [*MobiLink Administration Guide*, page 479].

Add Carrier wizard

The Add Carrier wizard walks you through the steps for adding a new carrier. You configure carriers to store information about the public wireless carriers that you want to use. Carrier information is used to create SMS e-mail addresses from tracked listening information. New carriers are enabled by default.

You can configure the settings for the new carrier on its property sheet by right-clicking it in Sybase Central and choosing properties from the popup menu.

You can also add a Carrier using the `ml_add_property` stored procedure.

The Add Carrier wizard has the following components:

What is the name of the new carrier? Type a name for the new carrier.

What is the description of the new carrier? Optionally, you can type a description of the new carrier.

See also

- ◆ “[Configuring gateways and carriers](#)” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 20]
- ◆ “[Carrier properties](#)” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 74]
- ◆ “[ml_add_property](#)” [*MobiLink Administration Guide*, page 486]

Add Connection Script wizard and Add Table Script wizard

About the Add Connection Script wizard

The Add Connection Script wizard walks you through the steps for creating a connection script. Connection scripts control actions centered on connecting and disconnecting. They also permit actions at synchronization-level events such as beginning and ending the upload or download process. You only need to write a connection-level script when some action must occur at a particular event.

About the Add Table Script wizard

The Add Table Script wizard walks you through the steps for creating a table script. Table scripts allow actions at specific events relating to the synchronization of a specific table, such as the start or end of uploading

rows, resolving conflicts, or selecting rows to download.

The Add Connection Script wizard and Add Table Script wizard have the following components:

What is the version for the script? Select a version for the table or connection script from the dropdown list.

What event is the new script for? Select the event that causes this script to be executed from the dropdown list.

What is the language for the script? Select a language for the script. You can choose SQL, .NET, or Java.

Edit the script of the new event immediately Select this option if you want the script to appear in a window where you can edit it when you click Finish.

See also

- ◆ “Script types” [*MobiLink Administration Guide*, page 236]
- ◆ “Writing Synchronization Scripts in Java” [*MobiLink Administration Guide*, page 255]
- ◆ “Writing Synchronization Scripts in .NET” [*MobiLink Administration Guide*, page 281]
- ◆ “Connection scripts” [*MobiLink Administration Guide*, page 236]
- ◆ “ml_add_connection_script” [*MobiLink Administration Guide*, page 480]
- ◆ “Table scripts” [*MobiLink Administration Guide*, page 236]
- ◆ “ml_add_table_script” [*MobiLink Administration Guide*, page 481]

Add Gateway wizard

The Add Gateway wizard walks you through the steps for adding a new gateway. Gateways are the mechanisms for sending messages. You can define UDP gateways and SMTP gateways. In addition, you can use a device tracker gateway that automatically decides which gateway to use.

You can configure the settings for the new gateway on its property sheet by right-clicking the gateway and choosing Properties from the popup menu.

You can also add a Gateway using the ml_add_property stored procedure.

The Add Gateway wizard has the following components:

What is the name of the new gateway? Type a name for the new gateway.

What is the type of the new gateway? Select one of the following types for the new gateway:

- ◆ **SMTP** SMTP gateways can be used to send e-mail messages. They can also send SMS messages to SMS listeners via a wireless carrier’s

e-mail-to-SMS service.

☞ For more information about SMTP gateways, see “SMTP gateway properties” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 70].

- ◆ **UDP** UDP is useful for development and for applications over wireless LANs.

☞ For more information, see “UDP gateway properties” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 72].

- ◆ **DeviceTracker** Device tracking allows you to address a remote database by supplying only its MobiLink user name. When device tracking is enabled, MobiLink keeps track of how to reach users. The device tracker gateway automatically routes messages to its subordinate gateways. A device tracker gateway can have up to two subordinate gateways: one SMS and one UDP.

For more information, see “Device tracking” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 22].

What is the description of the new gateway? Optionally, you can type a description of the new gateway.

See also

- ◆ “Gateways and carriers” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 20]
- ◆ “ml_add_property” [*MobiLink Administration Guide*, page 486]

Add Notifier wizard

The Add Notifier wizard walks you through the steps for adding a new gateway. In the following illustration, the Notifier polls a consolidated database and detects a change that it has been configured to look for.

You can configure the settings for the new notifier on its property sheet by right-clicking the gateway and choosing Properties from the popup menu.

You can also add a Notifier using the ml_add_property stored procedure.

The Add Notifier wizard has the following components:

What is the name of the new notifier? Type the name of the new notifier.

What is the description of the new notifier? Optionally, you can type a description of the new notifier.

See also

- ◆ “Notifiers” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 18]
- ◆ “Configuring Notifiers” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 18]
- ◆ “ml_add_property” [*MobiLink Administration Guide*, page 486]

Add Service wizard

The Add Service wizard walks you through the steps for creating a MobiLink service. You can set up MobiLink synchronization server to be available all the time. The Add Service wizard allows you to set up a service on Windows so that you can run the MobiLink synchronization server in such a way that when you log off the computer it remains running.

The Add Service wizard consists of six pages: Choose Service Name and Startup, Choose Path Name, Specify Parameters, Choose Account, Choose Options, and Ready to Create a New Service.

See also


- ◆ [“Running MobiLink Outside the Current Session”](#) [*MobiLink Administration Guide*, page 157]

Choose Name and Startup page

The Choose Name and Startup page of the Add Service wizard has the following components:

What is the name of the new service? Type a name for the new service.

Which startup option would you like? You can select one of the following startup options for the new service. The Startup option is applied the next time you start Windows.

- ◆ **Automatic** Select this option to start the service automatically whenever the operating system starts.
- ◆ **Manual** Select this option to start the service manually. Only a user with Administrator permissions can start the service if it requires manual startup.
 For information about Administrator permissions, see your Windows documentation.
- ◆ **Disabled** Select this option to disable the service so it does not start.

See also

- ◆ [“Running MobiLink Outside the Current Session”](#) [*MobiLink Administration Guide*, page 157]

Choose Path Name page

The Choose Path Name page of the Add Service wizard has the following components:

What is the executable file for the new service? Provides a place for you to type the path of the executable file, for example,

f:\Sybase\ASA90\win32\dbmlsrv9.exe. You can click Default if you want MobiLink to find the executable file.

Default Click Default if you want MobiLink to find the MobiLink Server executable in the Adaptive Server Anywhere installation directory.

See also

- ◆ [“Running MobiLink Outside the Current Session”](#) [*MobiLink Administration Guide*, page 157]

Specify Parameters page

The Specify Parameters page of the Add Service wizard has the following components:

What parameters do you want to use for this service? Type additional parameters (file names and options) for the executable file in the text box. You can use the same options for a service that you use for the executable.

For example, to create a MobiLink synchronization service with verbose logging and three worker threads, enter the following:

```
-c "dsn=ASA 9.0 Sample;uid=DBA;pwd=SQL"
-vc
-wu 3
```

 For a list of options, see [“dbmlsrv9 options”](#) [*MobiLink Administration Guide*, page 194].

Path Provides a place for you to edit the path of the executable file.

See also

- ◆ [“Running MobiLink Outside the Current Session”](#) [*MobiLink Administration Guide*, page 157]

Choose Account page

The Choose Account page of the Add Service wizard has the following components:

Local system account Select this option to run the service under your system’s local account.

Other Select this option to run the service under an account other than the local account. You must choose a user ID from the dropdown list.

- ◆ **Password** When you select Other Account, you must type the appropriate password for the selected account. You must confirm the password in the Confirm Password text box.
- ◆ **Confirm** Re-type the password to confirm that it was entered correctly.

See also

-
- ◆ “Running MobiLink Outside the Current Session” [[MobiLink Administration Guide, page 157](#)]

Choose Options page

The Choose Options page of the Add Service wizard has the following components:

Allow service to interact with desktop Select this option if you want to display the server window by clicking an icon on your desktop. This option is only available when you select Local System Account on the Choose Account page of the Add Service wizard.

Start service when created Select this option to start the new service once the wizard closes. This option is only available if you selected Automatic or Manual on the Choose Name and Startup page of the Add Service wizard.

See also

- ◆ “Running MobiLink Outside the Current Session” [[MobiLink Administration Guide, page 157](#)]

Ready to Create New Service page

The Ready to Create New Service page of the Add Service wizard has the following components:

Name Shows the name of the new service.

Path Shows the path of the executable file.

Parameters Shows the connection parameters for the service.

Startup Show the startup setting for the service, Automatic, Manual, or Disabled.

Account Shows the name of the account the service runs under.

Interaction Shows whether the service interacts with the desktop.

Start now Shows whether the service starts once the wizard closes.

See also

- ◆ “Running MobiLink Outside the Current Session” [[MobiLink Administration Guide, page 157](#)]

Add Synchronized Table wizard

The Add Synchronized Table wizard allows you to add a table to the list of tables to be synchronized.

The Add Synchronized Table wizard has the following components:

Specify the remote table name Select this option if the table you want to

synchronize already exists in the remote database. Type the name of the remote table you want to add to the list of synchronized tables in the adjacent text box. The remote table and consolidated tables do not have to have the same name.

Consolidated has a table with the same name as the remote table

Select this option if the consolidated database already contains a table with the same name as the remote table you want to synchronize. Selecting this option enables both options below.

- ◆ **Select the owner of the consolidated table with the same name**
Select the owner of the consolidated database table that has the same name as the remote table from the dropdown list. You must select a consolidated table owner.
- ◆ **Select the consolidated table** Select the consolidated table name from the list.

Add User wizard

The Add User wizard has the following components:

What is the name of the new user? Type a name for the new MobiLink user in the text box.

No Password Select this option if the new MobiLink user does not require a password.

Password Select this option if the new MobiLink user requires a password. Type a password for the new MobiLink user in the text box. You must confirm the password in the text box below.

Confirm password Re-type the password to confirm it. The password must match exactly.

See also

- ◆ [“Authenticating MobiLink Users” \[MobiLink Clients, page 9\]](#)

Add Version wizard

The Add Version wizard allows you to add a new script version. Script versions allow you to organize your scripts into sets, which are run under different circumstances. By specifying a particular version, MobiLink clients can select which set of synchronization scripts will be used to process the upload stream and prepare the download stream.

The Add Version wizard has the following components:

What is the name of the new version? Type a name for the version in the text box. The version name must be unique: different versions cannot have

the same name.

What is the description of the new version? Provides a place for you to type a text description of the version.

See also

- ◆ “Script versions” [*MobiLink Administration Guide*, page 239]

Export Notification Settings wizard

The Export Notification Settings wizard walks you through the steps of exporting the settings from Sybase Central to a Notifier properties file.

The Export Notification Settings wizard consists of three pages: File, Objects, and Settings.

Export Notification Settings wizard: File page

The File page of the Export Notification Settings wizard has the following components:

Create the following file Type a name for the Notifier properties file where the Notifier, gateway, and carrier properties are to be stored. You can click Browse to locate an existing file where you wish to save the Notifier properties.

The Notifier properties file is a text file. It can have any name.

See also

- ◆ “Notifier properties file” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 16]

Export Notification Settings wizard: Objects page

The Objects page of the Export Notification Settings wizard has the following components:

Select the carriers, gateways and notifiers you wish to export This list includes all the user-defined and pre-defined (default) carriers, gateways, and notifiers. Select the ones you wish to export to the Notifier properties file.

- ◆ **Select all** Click this button to select all the carriers, gateways, and notifiers in the list and add them to the Notifier properties file.
- ◆ **Clear all** Click this button to clear all the selected carriers, gateways, and notifiers in the list.

Export Notification Settings wizard: Settings page

The Settings page of the Export Notification Settings wizard has the following components:

Select the global notification settings you wish to export Select the settings you wish to export.

☞ For a description of the available settings, see “[Configuring Redirector properties \(all versions\)](#)” [*MobiLink Administration Guide*, page 139].

- ◆ **Select All** Click this button to select all the global notification settings in the list.
- ◆ **Clear All** Click this button to clear all the selected items in the global notification settings list.

Import Notification Settings wizard

The Import Notification Settings wizard walks you through the steps of importing the settings from a Notifier properties file.

The Import Notification Settings wizard consists of three pages: File, Objects, and Settings.

Import Notification Settings wizard: File page

The File page of the Import Notification Settings wizard has the following components:

Import the following file Type the name of the Notifier properties file you wish to import. Alternatively, you can locate the file on your machine by clicking Browse.

See also

- ◆ “[Notifier properties file](#)” [*MobiLink Server-Initiated Synchronization User’s Guide*, page 16]

Import Notification Settings wizard: Objects page

The Objects page of the Import Notification Settings wizard has the following components:

Select the carriers, gateways and notifiers you wish to import Select the carriers, gateways, and notifiers you wish to import. This list includes all the carriers, gateways, and notifiers defined in the Notifier properties file.

Import Notification Settings wizard: Settings page

The Settings page of the Import Notification Settings wizard has the following components:

Select the global notification settings you wish to import Select the settings you wish to import.

☞ For a description of the available settings, see [“Configuring Redirector properties \(all versions\)”](#) [*MobiLink Administration Guide*, page 139].

- ◆ **Select All** Click this button to select all the global notification settings in the list.
- ◆ **Clear All** Click this button to clear all the selected items in the global notification settings list.

CHAPTER 6

MobiLink Monitor Help

About this chapter

This chapter provides descriptions of all the dialog boxes and property sheets you can access from the MobiLink Monitor.

Contents

Topic:	page
Connect to MobiLink Server dialog	206
Edit Watch dialog	209
Go To dialog	210
New Watch dialog	211
Export to Database dialog	212
Options dialog	214
Session property sheet	219
Synchronization property sheet	220
Watch Manager dialog	224

Connect to MobiLink Server dialog

This dialog lets you connect to a running MobiLink synchronization server. A Monitor connection is like a synchronization connection to the MobiLink synchronization server in that most of the parameters are the same. You must use parameters that are compatible with the MobiLink synchronization server's settings. For all MobiLink Monitor sessions, the script version is set to **for_MLMonitor_only**.

Tip

If synchronizations are occurring when the MobiLink Monitor is started, the Monitor must wait until a worker thread is free before it can start. Therefore, you may want to start the Monitor before starting synchronizations. Once the Monitor is running, it does not use a MobiLink worker thread.

The Connect To MobiLink Server dialog has the following components:

User Type the name of the MobiLink user for the connection. If you started the MobiLink synchronization server with `-zu+`, then it doesn't matter what user ID you supply here.

Password Type a password for the connection. This must be the correct password for the MobiLink user you specify. Leave this field blank if the MobiLink user does not have a password.

Host The network name or IP address of the machine on which the MobiLink synchronization server is running. By default, it is the computer where the Monitor is running. You can use **localhost** if the synchronization server is running on the same machine as the Monitor.

Network protocol Select the communications stream and port to be used for the connection. These values should be set to the same protocol and port as the MobiLink synchronization server is using for synchronization requests.

- ◆ **TCP/IP** Select this option to connect via TCP/IP.
 - **Port** The MobiLink synchronization server communicates over a specific port. By default, the port number is 2439 for TCP/IP. If you choose a value other than this, you must configure your MobiLink synchronization server to listen on the port you specify.
- ◆ **HTTP** Select this option to connect via HTTP. By default, version **1.1** is used.
 - **Port** The MobiLink synchronization server communicates over a specific port. By default, the port number is 80 for HTTP. If you

choose a value other than this, you must configure your MobiLink synchronization server to listen on the port you specify.

- ◆ **HTTPS** Select this option to connect via HTTPS. The HTTPS communication stream uses Certicom RSA security.

Note

The MobiLink Monitor cannot connect to a MobiLink synchronization server that is running HTTPS_FIPS.

In order to use HTTPS, you must have MobiLink client-side data stream encryption installed on the computer running the MobiLink Monitor. The MobiLink Monitor trusts all certificates, so when you use HTTPS, you do not specify any certificate-related parameters in the Additional Network Parameters field.

Separately licensable option required

Transport-layer security requires that you obtain the separately-licensable SQL Anywhere Studio security option and is subject to export regulations.

☞ To order this component, see “Separately-licensable components” [[Introducing SQL Anywhere Studio, page 5](#)].

☞ For more information about security, see “MobiLink Transport-Layer Security” [[MobiLink Administration Guide, page 165](#)].

- **Port** The MobiLink synchronization server communicates over a specific port. By default, the port number is 443 for HTTPS. If you choose a value other than this, you must configure your MobiLink synchronization server to listen on the port you specify.

Additional network parameters Specify optional network parameters in this field. The allowed values depend on the connection stream type.

The following table lists the parameters you can specify. These parameters are supported by all connection streams (TCP/IP, HTTP, and HTTPS), except where noted otherwise.

Parameter	Description
buffer_size=number	HTTP and HTTPS only. The maximum body size for a fixed content length message, in bytes. Changing the option will decrease or increase the amount of memory allocated for sending content. The default is 65 535, except on UltraLite and Pocket PC, in which case it is 1 024.

Parameter	Description
client_port = <i>nnnnn</i> client_port = <i>nnnnn- mmmmm</i>	<p>A range of client ports for communication. If only one value is specified, the end of the range is 100 greater than the initial value, for a total of 101 ports.</p> <p>The option can be useful for clients inside a firewall communicating with a MobiLink synchronization server outside the firewall.</p>
persistent ={ 0 1 }	<p>HTTP and HTTPS only. 1 (True) means that the client will attempt to use the same TCP/IP connection for all HTTPS requests in a synchronization. A setting of 0 (False) is more compatible with intermediate agents. The default is 0, except on Palm devices it is 1.</p> <p><i>Note:</i> Except on Palm devices, you should only set persistent to 1 if you are connecting directly to MobiLink. If you are connecting through an intermediate agent such as a proxy or redirector, a persistent connection may cause problems.</p>
proxy_host = <i>proxy_- hostname</i>	HTTP and HTTPS only. The host name of the proxy server.
proxy_port = <i>proxy_- portnumber</i>	HTTP and HTTPS only. The port number of the proxy server. The default value is 80.
url_suffix = <i>suffix</i>	HTTP and HTTPS only. The suffix to add to the URL on the first line of each HTTP request. When synchronizing through a proxy server or the MobiLink redirector, the suffix may be necessary in order to find the MobiLink synchronization server. The default value is MobiLink .
version = <i>versionnumber</i>	HTTP and HTTPS only. A string specifying the version of HTTP to use. You have a choice of 1.0 or 1.1 . The default value is 1.1 .

☞ For more information about these network parameters, see “[Network protocol options for UltraLite synchronization clients](#)” [*MobiLink Clients*, page 341].

See also

- ◆ “[Starting the MobiLink Monitor](#)” [*MobiLink Administration Guide*, page 119]

Edit Watch dialog

The Edit Watch dialog has the following components:

Name The name of the watch. You cannot change the name of a predefined watch (Active, Completed, or Failed).

Conditions You must specify a property, comparison operator, and value to identify synchronizations the Monitor should track. You can specify as many conditions as you wish. Once you select a property, an operator, and a value, click Add to add the condition to the watch.

You cannot edit the values that appear in the Conditions list. To change a watch condition, select the condition from the Conditions list and click Remove. Then, add a new condition with the desired settings.

- ◆ **Property** Select the property you want the Monitor to track from the dropdown list.
 - ☞ For a complete list of properties that are available in the MobiLink Monitor, see [“MobiLink statistical properties”](#) [*MobiLink Administration Guide*, page 130].
- ◆ **Operator** Select a comparison operator. The list of available operators depends on the property you select.
- ◆ **Value** Enter the value to which the property is compared.

Synchronization display These options let you specify a pattern and color to identify the watch in the Chart and Overview panes.

- ◆ **Chart pattern** Select a pattern for the watch in the Chart pane.
- ◆ **Overview color** Select a color for the watch in the Overview pane.
- ◆ [“Customizing your statistics”](#) [*MobiLink Administration Guide*, page 128]

See also

Go To dialog

The Go To dialog has the following components:

Start date & time The Go To dialog takes you to the specified date and time in the Chart pane of the Monitor. Type the start date and time of the data that you want to view. If you change this setting, you must specify the year, month, and date.

Chart range Lets you specify the duration of time that appears in the Chart pane. The chart range can be viewed in milliseconds, seconds, minutes, hours, or days by selecting one of these options from the dropdown list. The chart range determines the granularity of the data: a smaller length of time means that more detail is visible.

See also

- ◆ “Chart pane” [[MobiLink Administration Guide, page 123](#)]

New Watch dialog

The New Watch dialog has the following components:

Name Type a name for the watch.

Conditions You must specify a property, comparison operator, and value to identify synchronizations the Monitor should track. You can specify as many conditions as you wish. Once you select a property, an operator, and a value, click Add to add the condition to the new watch.

You cannot edit the values that appear in the Conditions list. To change a watch condition, select the condition from the Conditions list and click Remove. Then, add a new condition with the desired settings.

◆ **Property** Select the property you want the Monitor to track.

☞ For a complete list of properties that are available, see [“MobiLink statistical properties”](#) [*MobiLink Administration Guide*, page 130].

◆ **Operator** Select a comparison operator. The list of available operators depends on the property you select.

◆ **Value** Enter a value for the specified property.

Synchronization display These options let you select a pattern and color to identify the watch in the Chart and Overview panes.

◆ **Chart pattern** Select a pattern for the watch in the Chart pane.

◆ **Overview color** Select a color for the watch in the Overview pane.

◆ [“Customizing your statistics”](#) [*MobiLink Administration Guide*, page 128]

See also

Export to Database dialog

You can save MobiLink Monitor data to any consolidated database supported by MobiLink, or to Excel spreadsheets using the Export to Database dialog. You must be disconnected from the MobiLink synchronization server when you export data from the Monitor.

Note

The data source must have quoted identifiers enabled because some of the columns are reserved words. The MobiLink Monitor enables quoted identifiers automatically for Adaptive Server Anywhere, Adaptive Server Enterprise, and Microsoft SQL Server databases. If quoted identifiers is not enabled, the export will fail.

☞ For more information about quoted identifiers, see “[Character strings and quotation marks](#)” [*ASA SQL User’s Guide*, page 231] and “[QUOTED_IDENTIFIER option \[compatibility\]](#)” [*ASA Database Administration Guide*, page 685].

The Export to Database dialog has the following components:

Master table Type a name for the master table created to hold Monitor data. The table name must be 128 characters or less. If the table does not exist, it will be created by the Monitor. For Excel output, the table name identifies the worksheet that is created.

This table contains one row per synchronization, including all the information that can appear in the Monitor’s Details Table pane, as well as an `export_time` column that contains the time the export was performed. Its primary key consists of the `export_time` and `sync` columns. By default this table is called **mlm_by_sync**.

Details table Type a name for the details table created to hold Monitor data. The table name must be 128 characters or less. By default this table is called **mlm_by_table**. If the table does not exist, it will be created by the Monitor. For Excel output, the table name identifies the worksheet that is created.

This table contains one row per table per synchronization, and has a column for each of the upload, download, and synchronization statistics that appear on the Synchronization property sheet in the Monitor, as well as an `export_time` column that contains the time the export was performed. The details table has a foreign key relationship to the master table’s `export_time` and `sync` columns. The primary key for the details table consists of the `export_time`, `sync`, and `table_name` columns.

Overwrite any existing data Select this option if you want to overwrite data in existing tables. If you do not choose to overwrite the data, new data is appended to existing data.

See also

- ◆ [“Saving Monitor data”](#) [*MobiLink Administration Guide*, page 126]
- ◆ [“Synchronization property sheet”](#) on page 220

Options dialog

The Options dialog consists of four tabs: General, Chart Layout, Chart Colors, and Overview.

To restore the Monitor's default settings, delete the file `.mlMonitorSettings`. This file is stored in your user profiles directory.

Options dialog: General tab

The General tab of the Options dialog has the following components:

Prompt to connect on startup This option controls whether the Connect To MobiLink Server dialog appears when the MobiLink Monitor is started. By default, this option is selected, which means that when the Monitor is started without any command-line options, the Connect To MobiLink Server dialog appears. If you do not want the Connect To MobiLink Server dialog to appear when you start the Monitor without command-line options, clear the checkbox beside this option.

Max synchronization count This is the maximum number of synchronizations that are kept in the current session. The default maximum synchronization count is 100 000. Once the limit is reached, you can choose to replace the oldest synchronizations with new ones by selecting the Replace Old Synchronizations With New Ones option.

Replace old synchronizations with new ones This option controls whether new synchronizations replace the oldest or newest synchronizations in the session when the monitor reaches the maximum synchronization count for the current session. This option is selected by default, meaning that new synchronizations replace the oldest synchronizations in the session.

Save automatically when connected to MobiLink server Select this option to save Monitor sessions automatically to a file when the Monitor is connected to a MobiLink synchronization server. *The setting for this option takes effect the next time the MobiLink Monitor connects to a synchronization server. It does not change the setting for current connections.* Data from the Monitor session is saved as a binary file (`.mlm`) by default. Selecting this option enables the Output File and Save Every fields. When this option is selected for a connection, the Monitor starts saving session information when it connects to a MobiLink synchronization server and stops saving information when it disconnects. The data contained in the output file is overwritten by new data for each time the Monitor connects to a MobiLink synchronization server.

◆ **Output file** Type the name of the binary file (with the extension `.mlm`)

where you want to save the current session automatically. You can also click **Browse** to locate the file.

If you want to view the data in another tool, such as Microsoft Excel, you must save the data in a comma-separated file (.csv) by choosing **File > Save As**.

If you supply an extension to the file name, it must be *.mlm* or *.csv*. These are the only file formats the MobiLink Monitor supports.

- ◆ **Save every** Specify how often you want the data saved to the file specified above. By default, the output file is saved every 120 seconds.

Note

To restore the Monitor's default settings, delete the file *.mlMonitorSettings*. This file is stored in your user profiles directory.

Options dialog: Table tab

This tab lets you configure the columns that appear in the Details Table pane. The settings on this tab persist between MobiLink Monitor sessions.

The Table tab of the Options dialog has the following components:

Hidden Columns Lists all the columns that can appear in the Details Table pane that are not currently visible in the pane. To display a column in the Details Table pane, select the column or columns in the Hidden Columns list and click the right arrow. The selected column or columns appear in the Visible Columns list.

Visible Columns Lists all the columns that currently appear in the Details Table pane. To remove a column from the Visible Columns list so that it no longer appears in the Details Table pane, click the left arrow. Columns that are added to the Visible Columns list are added to the end of the list.

The order of the columns in the Visible Columns list determines the order of the columns in the Details Table pane. To move a column up the list, select the column and click the up arrow. To move a column further down the list, select the column and click the down arrow.

Tip

You can also change the order of the columns by dragging the column headings in the Details Table pane.

Reset Click **Reset** to restore the list of columns that appear in the Details Table pane to its default settings.

See also

- ◆ “Details Table pane” [*MobiLink Administration Guide*, page 121]

Options dialog: Chart Layout tab

This tab lets you configure the appearance and behavior of the Chart pane.

The Chart Layout tab of the Options dialog has the following components:

Minimum synchronization bar height Specifies the minimum display height for synchronization bars. Together with the Vertical Gap Between Synchronization Bars option, this determines the threshold for the Chart pane to have a vertical scroll bar.

The default minimum height of synchronization bars in the Chart pane is 5 pixels.

Vertical gap between synchronization bars Specifies how much relative vertical space should appear between synchronization bars in the Chart pane.

The default gap size between synchronization bars in the Chart pane is 150%.

Show horizontal chart ruler Select this option if you want to see the chart ruler showing the synchronization time. This option is selected by default.

Show vertical chart ruler Select this option if you want to see the chart ruler showing the data grouped by worker thread or synchronization user. This option is selected by default. You can choose whether you want the data grouped by worker thread or synchronization user from the View menu.

Scroll chart automatically when connected Select this option if you want the chart to scroll automatically when you are connected to a MobiLink synchronization server. This option is selected by default.

If you want to see the complete date and time in the Chart pane, hover your cursor over the ruler.

Note

To restore the Monitor's default settings, delete the file *.mlMonitorSettings*. This file is stored in your user profiles directory.

Options dialog: Chart Colors tab

This tab lets you specify the colors used in the Chart pane.

The default color scheme for the Chart pane uses green for uploads, red for downloads, and blue for begin and end phases. A darker shade indicates earlier parts of a phase.

The Chart Colors tab of the Options dialog has the following components:

Verify upload By default, the verify upload phase is Gold.

Preload upload By default, the preload upload phase is Dark Green.

Begin synchronization By default, the begin synchronization phase is Ocean Blue.

Upload By default, the upload phase is Lime Green.

Prepare for download By default, the prepare for download phase is Dark Red.

Download By default, the download phase is Coral.

End synchronization By default, the end synchronization phase is Periwinkle.

Selected sync outline By default, the outline for a selected synchronization is Black.

Sync outline By default, synchronizations are outlined in Gray.

Chart background By default, the background of the Chart pane is White.

Note

To restore the Monitor's default settings, delete the file `.mlMonitorSettings`. This file is stored in your user profiles directory.

Options dialog: Overview tab

The Overview tab of the Options dialog has the following components:

Keep overview window attached to main window Clear this checkbox if you want the Overview pane to be detached from the Chart pane.

Vertical gap between synchronization bars Specifies the relative size of the vertical gap that appears between synchronization bars in the Overview pane. The default size is 25%.

Colors for built-in watches Use the dropdown boxes to choose the colors used to identify the components of predefined watches.

- ◆ **Active synchronizations** Select a color to identify synchronizations that are still active. By default, active synchronizations are Light Gray. You can also set the color for active synchronizations in the Edit Watch dialog.
- ◆ **Completed synchronizations** Select a color to identify synchronizations that have completed. By default, completed synchronizations are Light Gray. You can also set the color for completed synchronizations in the Edit Watch dialog.
- ◆ **Failed synchronizations** Select a color to identify failed synchronizations. By default, failed synchronizations are Red. You can

also set the color for failed synchronizations in the Edit Watch dialog.

Chart region outline Select a color for the outline that is used to select synchronizations you want to appear in the Chart pane. By default, the chart outline is Black.

Overview background Select a background color for the Overview pane. By default, the background is White.

Note

To restore the Monitor's default settings, delete the file *.mlMonitorSettings*. This file is stored in your user profiles directory.

Session property sheet

The Session property sheet consists of one tab: General.

Session property sheet: General tab

The General tab of the Session property sheet has the following components:

Name The name of the file to which the session is saved. You name the session when you save it to a file (this can be done on the General tab of the Options dialog). If the session is not saved to a file, a name does not appear for the session.

Number of workers The number of MobiLink worker threads.

Number of synchronizations The total number of synchronizations in the session.

Replaced synchronizations The number of synchronizations that have been replaced because of the maximum synchronization count. You can change the maximum synchronization count on the General tab of the Options dialog.

Monitor session started The date and time when the session started. If you opened a .csv file, this is the start time of the first synchronization.

Monitor session ended The date and time when the session ended. If you opened a .csv file, this is the end time of the last synchronization.

Monitor session duration The total length of the session. If you have opened a .csv file, this is the time between the start of the first synchronization and the last synchronization.

Synchronization property sheet

The Synchronization property sheet consists of four tabs: General, Upload, Download, and Synchronization.

Synchronization property sheet: General tab

The General tab of the Synchronization property sheet has the following components:

Overall Synchronization Statistics These statistics provide general information about the selected synchronization.

- ◆ **Sync** A unique number assigned to each synchronization within a session by the MobiLink Monitor.
- ◆ **Worker thread** The MobiLink worker thread used for the synchronization in the form *n.m*, where *n* is the stream number and *m* is the thread number.
- ◆ **User** The name of MobiLink client.
- ◆ **Version** The name of the synchronization version.
- ◆ **Start time** Date-time (in ISO-8601 extended format) for the start of the synchronization. The format will be either *YYYY-MM-DD hh:mm:ss.sss* or *YYYY-MM-DD hh:mm:ss,sss*, depending on your locale setting.

This time may be later than when the synchronization was requested by the client.
- ◆ **End time** Date-time (in ISO-8601 extended format) for the end of the synchronization. The format will be either *YYYY-MM-DD hh:mm:ss.sss* or *YYYY-MM-DD hh:mm:ss,sss*, depending on your locale setting.
- ◆ **Active** Yes if the synchronization is in progress, otherwise no.
- ◆ **Completed** Yes if the synchronization completed successfully, otherwise no.

Synchronization Phase Statistics These statistics provide information about each phase of the synchronization.

- ◆ **Verify upload** The time required to verify the synchronization protocol and authenticate the synchronization client.

- ◆ **Preload upload** The time required for the transfer of the upload data from the client to the MobiLink synchronization server.
 - ◆ **Begin synchronization** The time required for the begin_synchronization event.
 - ◆ **Upload** The time required for the uploaded data to be applied to the consolidated database.
 - ◆ **Prepare for download** The time required for the prepare_for_download event.
 - ◆ **Download** The time required for data to be fetched from the consolidated database and downloaded to the remote database.
 - ◆ **End synchronization** The time required for the end_synchronization event.
- See also
- ◆ [“MobiLink statistical properties”](#) [*MobiLink Administration Guide*, page 130]

Synchronization property sheet: Upload tab

The Upload tab of the Synchronization property sheet has the following components:

Statistics for You can choose to view upload statistics for all the tables that were synchronized or for individual tables. If you have opened a .csv file, you cannot view statistics for individual tables.

Number of warnings Total number of warnings that occurred for the upload.

Number of errors Total number of errors that occurred for the upload.

Inserted rows Number of row insertions that were uploaded from the synchronization client.

Deleted rows Number of row deletions that were uploaded from the synchronization client.

Updated rows Number of row updates that were uploaded from the synchronization client.

Conflicted inserts Number of uploaded inserts for which conflicts were detected.

Conflicted deletes Number of uploaded deletes for which conflicts were detected.

Conflicted updates Number of uploaded updates for which conflicts were detected.

-
- Ignored inserts** Number of uploaded inserts that were ignored.
 - Ignored deletes** Number of uploaded deletes that were ignored.
 - Ignored updates** Number of uploaded updates that were ignored.
 - Total bytes** Total number of bytes uploaded from the synchronization client.
 - Deadlocks** Number of deadlocks in the consolidated database that were detected during the upload.
 - Total rows** Total number of rows uploaded from the synchronization client.

See also

- ◆ [“MobiLink statistical properties”](#) [*MobiLink Administration Guide*, page 130]

Synchronization property sheet: Download tab

The Download tab of the Synchronization property sheet has the following components:

Statistics for You can choose to view download statistics for all the tables that were synchronized or for individual tables. If you have opened a .csv file, you cannot view statistics for individual tables.

Number of warnings Number of warnings that occurred during the download.

Number of errors Number of errors that occurred during the download.

Rows fetched Number of rows fetched from the consolidated database by the MobiLink synchronization server (using `download_cursor` scripts).

Rows for delete Number of row deletions fetched from the consolidated database by the MobiLink synchronization server (using `download_delete_cursor` scripts).

Filtered rows Number of fetched rows that were not downloaded to the MobiLink client because they matched rows that the client uploaded.

Total bytes Bytes downloaded to the synchronization client.

Total rows Total number of rows downloaded to the synchronization client.

See also

- ◆ [“MobiLink statistical properties”](#) [*MobiLink Administration Guide*, page 130]

Synchronization property sheet: Synchronization tab

The Synchronization tab of the Synchronization property sheet has the following components:

Statistics for You can choose to view synchronization statistics for all the tables that were synchronized or for individual tables. If you have opened a .csv file, you cannot view statistics for individual tables.

Number of warnings Total number of warnings that occurred for the synchronization.

Number of errors Total number of errors that occurred for the synchronization.

Deadlocks Total number of deadlocks that occurred for the synchronization.

Number of tables Number of client tables that were involved in the synchronization.

Connection retries Number of times the MobiLink synchronization server retried the connection to the consolidated database.

See also

- ◆ [“MobiLink statistical properties”](#) [*MobiLink Administration Guide*, page 130]

Watch Manager dialog

The Watch Manager allows you to visibly distinguish synchronizations that meet criteria you specify, such as synchronizations that receive warnings or take a long time.

The Watch Manager dialog has the following components:

Available watches This pane lists all available watches. There are three predefined watches: Active, Completed, and Failed. When you create a new watch, it is added to this list of watches.

- ◆ **New** Opens the New Watch dialog where you can create a new watch.
- ◆ **Edit** Opens the Edit Watch dialog where you can add or remove watch conditions and configure the synchronization display of the selected watch. You can edit any watch in the Available Watches list. For the predefined watches (Active, Completed, and Failed), you can only change the Chart pattern and overview color.
- ◆ **Delete** Deletes the selected watch from the Available Watches pane.

Current watches Lists the watches that are active in order of their precedence. These watches can be edited to change the way they display, and you can deactivate them by removing them from the Current Watches pane.

The order of watches in the Current Watches pane is important. Watches that are closer to the top of the list are processed first. You can use the Move Up and Move Down buttons to organize the order of the watches in the Current Watches pane.

- ◆ **Move Up** Moves the selected watch up one position in the list in the Current Watches pane.
- ◆ **Move Down** Moves the selected watch down one position in the list in the Current Watches pane.

Add Adds the watch selected in the Available Watches pane to the list of Current Watches.

Remove Removes the selected watch from the list of Current Watches.

Add All Adds all the available watches to the Current Watches pane.

Remove All Removes all the watches from the Current Watches pane.

See also

- ◆ [“Customizing your statistics” \[MobiLink Administration Guide, page 128\]](#)

CHAPTER 7

Query Editor Help

About this chapter

This section describes the Query Editor, which is a tool for building and editing SQL queries.

Contents

Topic:	page
Introducing the Query Editor	226
Tables tab	228
Joins tab	230
Columns tab	232
INTO tab	234
WHERE tab	235
GROUP BY tab	236
HAVING tab	238
ORDER BY tab	239
Expression Editor	240
Results pane	242
SQL pane	243

Introducing the Query Editor

The Query Editor is a tool that helps you build Adaptive Server Anywhere SELECT statements. You can create SQL queries in the Query Editor, or you can import queries and edit them. When you have finished your query, click OK to export it back into Interactive SQL for processing.

The Query Editor provides a series of tabs that guide you through the components of a SQL query, most of which are optional. The tabs are presented in the order that SQL queries are usually built:

- ◆ **Tables tab** Use this tab to specify the tables in your query.
- ◆ **Joins tab** Use this tab to specify a join strategy for combining the data in the tables. If you include more than one table in your query, you should specify a join strategy for combining the data in the tables. If you do not specify a join strategy for tables you added in the Tables tab, the Query Editor suggests one; if there is a foreign key relationship between the tables, it generates a join condition based on that relationship, or it suggests a cross product. When you import queries, the Query Editor accepts exactly the join strategy that you have specified (and an unspecified JOIN is not defaulted to KEY JOIN, as it would be otherwise in Adaptive Server Anywhere).
- ◆ **Columns tab** Use this tab to specify the columns in your result set. If you do not specify columns, all columns appear.
- ◆ **INTO tab** Use this tab if you want to return results as procedure parameters.
- ◆ **WHERE tab** Use this tab if you want to specify conditions for restricting the rows in your result set.
- ◆ **GROUP BY tab** Use this tab if you want to group rows in the result set.
- ◆ **HAVING tab** Use this tab to restrict the rows in your result set based on group values.
- ◆ **ORDER BY tab** Use this tab if you want to sort the rows.

The Query Editor also contains

- ◆ **Expression Editor** Use the Expression Editor to build search conditions or define computed columns.
- ◆ **Derived table or subquery dialog** Use this dialog, which is nearly identical to the main Query Editor, to create derived tables and subqueries.

Each component of the Query Editor has context-sensitive online help that describes how to use the tab, and provides links into the Adaptive Server Anywhere documentation that explains relevant concepts and usage.

Using the Query Editor

To open the Query Editor, open Interactive SQL, connect to a database, and click Tools ► Edit Query. If you have SQL code selected in Interactive SQL, the selected code is automatically imported into the Query Editor.

When you finish creating a query in the Query Editor, click OK to write the query to the Interactive SQL Statements pane.

You do not need to use SQL code to create queries with the Query Editor. However, you can use SQL with the Query Editor in the following ways:

- ◆ You can create a query in the SQL Statements pane in Interactive SQL, and import it into the Query Editor by highlighting the code before you open the editor.
- ◆ At any time while using the Query Editor, you can click SQL at the bottom of the dialog to see the SQL code for the query you are building. You can directly edit the code, and the fields are automatically updated in the Query Editor user interface. You will notice that this SQL looks a little different from the SQL you normally write. This SQL is fully formed, meaning that all tables are prefixed with owner name, all strings are enclosed in quotation marks, and so on. This extra formatting is not normally necessary, but it ensures that the SQL will work in all situations.

Query Editor limitations

The Query Editor builds Adaptive Server Anywhere SELECT statements. It is not designed to create views, although you can create them in Interactive SQL and reference them in the Query Editor. Nor was it designed to create update statements or other non-SELECT SQL statements. It creates a single SELECT statement, so it does not build unions or intersects of SELECT statements. In addition, the Query Editor does not support Transact-SQL syntax.

More information

- ◆ For an introduction to selecting data, see [“Selecting Data from Database Tables”](#) [*Introducing SQL Anywhere Studio*, page 139].
- ◆ For reference documentation, see [“SELECT statement”](#) [*ASA SQL Reference*, page 597].
- ◆ For more information about selecting data, see [“Queries: Selecting Data from a Table”](#) [*ASA SQL User’s Guide*, page 213].

Tables tab

Use the Tables tab to select the tables, derived tables, and views you want to include in your query. You can create derived tables using the Create a Derived Table button. You cannot create views in the Query Editor, but you can create them in Interactive SQL and reference them in the Query Editor.

Include tables that you want to get data from, and tables that you want to include in joins. If you include more than one table or view in your query, you should use the Joins tab to specify how the tables are to be joined.

Warning: If you are including more than one table in your query, and the tables are large, you should define a join strategy on the Joins tab after adding each table. The processing can become very slow if you do not change the join strategy because the Query Editor sometimes has to default to a cross product and the Query Editor processes your query as you work.

Dialog components

Table pattern To restrict the tables in the Matching Tables box, type the name or partial name of tables. You can use wildcard characters in the pattern. For example, to get only tables starting with SYS, type SYS%.

☞ For more information about using wild cards in the table pattern, see [“LIKE conditions” \[ASA SQL Reference, page 25\]](#).

Owner pattern To restrict the tables in the Matching Tables box, type the name or partial name of an owner. You can use wildcard characters in the pattern. For example, to get only tables starting with SYS, type SYS%.

☞ For more information about using wild cards in the owner pattern, see [“LIKE conditions” \[ASA SQL Reference, page 25\]](#).

Table type To restrict the tables in the Matching Tables box, choose a type of table from the dropdown list. For example, you can choose to view only system tables.

Matching tables This lists all the tables in the database that match the criteria above. The default is all tables.

Selected tables To add a table to your query, select a table in the Matching Tables box and click the right arrow. The table appears in the Selected Tables box. To create a derived table for your query, click the middle icon (between the two arrows). If you add more than one table, you should use the Joins tab to specify a join strategy. When you add tables to your query by specifying them in the Selected Tables box, they are joined by default as cross products.

Results Click Results at the bottom of the dialog to see the results of your query, or an error message if the query contains errors.

SQL Click **SQL** at the bottom of the dialog to see the SQL code for your query. You will notice that this SQL looks a little different from the SQL you normally write. This SQL is fully formed, meaning that all tables are prefixed with owner name, all strings are enclosed in quotation marks, and so on. This extra formatting is not normally necessary, but it ensures that the SQL will work in all situations.

About views and derived tables

You can add views and derived tables to your query, as well as tables.

A view is a **SELECT** statement that is stored in the database as an object. You cannot create views in the Query Editor, but you can create them in Interactive SQL and enter them as tables in the Query Editor.

You can create derived tables in the Query Editor. Derived tables allow you to nest queries within a **FROM** clause. With derived tables, you can perform grouping of groups, or you can construct a join with a group, without having to create a view.

More information

- ◆ For more information about the Query Editor, see [“Introducing the Query Editor” on page 226](#).
- ◆ For an introduction to specifying tables, see [“The FROM clause: specifying tables” \[ASA SQL User’s Guide, page 224\]](#).
- ◆ For reference information about specifying tables, see [“FROM clause” \[ASA SQL Reference, page 491\]](#).
- ◆ For reference information about derived tables, see [“FROM clause” \[ASA SQL Reference, page 491\]](#).
- ◆ For an introduction to subqueries, see [“Selecting Data Using Subqueries” \[Introducing SQL Anywhere Studio, page 167\]](#).
- ◆ For more information about subqueries, see [“Subqueries in search conditions” \[ASA SQL Reference, page 24\]](#).

Joins tab

Use this tab if you have more than one table in your query.

When you include more than one table in a query, the tables must somehow be joined. This tab allows you to define your joins.

Default joins

When you specify tables in the Tables tab, the Query Editor tries to generate a default join condition. It does this for two reasons. First, the Query Editor processes the query as you create it. If there is no default join, the tables create a cross product, and this can result in slow processing. Secondly, the Query Editor suggests a join strategy that might work for you.

If you add tables in the Query Editor Tables tab, the Query Editor checks to see if a foreign key relationship has been created between the tables. If there is one foreign key, it uses it to generate an ON condition. If there is more than one foreign key relationship, it uses the first one it finds. If there are no foreign keys, it does not generate an ON clause and the tables become a cross product.

You can always review your query by clicking the SQL tab, which is located at the bottom of the Query Editor dialog. You can edit your join strategy directly on the SQL tab, or you can use the Joins tab user interface to change it.

☞ For more information about key joins, ON conditions, and cross products, see [“Joins: Retrieving Data from Several Tables” \[ASA SQL User’s Guide, page 263\]](#).

Tip: All the fields in the Joins tab are resizable. You can also expand the Query Editor by pulling on its edges. You may need to resize the fields and dialog in order to read your table names.

Dialog components

Left table expression Select a table from the dropdown list. Only tables that have been entered in the Tables tab are available. Placing a table on the right or left is significant for outer joins.

Join type Select a join type from the dropdown list.

☞ For information about join types, see [“Joined tables” \[ASA SQL User’s Guide, page 267\]](#).

Right table expression Select a table from the dropdown list. Only tables that have been entered in the Tables tab are available. Placing a table on the right or left is significant for outer joins.

Condition Double-click to create an ON condition, if desired. The Query Editor inserts the keyword ON. For key joins and natural joins, the ON

condition is generated by Adaptive Server Anywhere.

☞ For information about ON conditions, see “[Explicit join conditions \(the ON phrase\)](#)” [*ASA SQL User’s Guide*, page 271].

Add/Delete Use to add or delete lines. Click the gray circle to the left of the line to select the line.

You must delete blank lines. This does not affect the tables in your query: to add or delete a table, use the Tables tab.

Results This pane displays the results of your query, or an error message if the query contains errors.

SQL Click SQL at the bottom of the dialog to see the SQL code for your query.

Using the joins tab

When you add more than one table to a query, the Query Editor attempts to create a default join strategy. If it cannot find a foreign key relationship between the tables, the default is a cross product. In most cases, cross products are not desirable.

To add or edit the join strategy, choose a table, a join type, and another table, all from the dropdown lists. Alternatively, click the SQL tab and edit the code directly.

Troubleshooting

If you receive an error message indicating that your join is not correct, click the SQL tab at the bottom of the window to review the SQL code. It may happen that empty quotation marks or extra commas have been inserted in your code, particularly if you have added and deleted lines on the Join tab. For example, the following query produces an error message. You need to delete the empty quotes that appear after `sales_order`:

```
FROM ( "DBA"."customer"
      JOIN "DBA"."sales_order")" "
      JOIN "DBA"."sales_order_items"
```

More information

- ◆ For more information about the Query Editor, see “[Introducing the Query Editor](#)” on page 226.
- ◆ For an introduction to joins, see “[Selecting Data from Multiple Tables](#)” [*Introducing SQL Anywhere Studio*, page 157].
- ◆ For more information about joins, see “[Joins: Retrieving Data from Several Tables](#)” [*ASA SQL User’s Guide*, page 263].

Columns tab

Use this tab to restrict the columns that appear in your result set. You can specify columns, column aliases, computed columns, or subqueries. You specify subqueries using the Expression Editor.

Dialog components

Available columns This box lists all the tables you have chosen for your query, and the columns in each table.

Selected columns By default, all columns are selected for your query. To delete a column, select it in the Selected Columns box and click the left arrow. To display a column in your result set, select a column or set of columns in the Available Columns box and click the right arrow. Use the up and down arrows to scroll through the columns in the Selected Columns box.

If you select the same column more than once, an alias is applied. You can edit the alias name.

DISTINCT Select DISTINCT if you want to eliminate duplicate rows from your result set.

Note: Many statements take significantly longer to execute when DISTINCT is specified, so you should reserve DISTINCT for cases where it is necessary. In addition, DISTINCT treats nulls as duplicates, so when you select DISTINCT, only one null is returned in the results.

Limit rows You can choose to retrieve only the first row of the result set, or only the number of rows that you specify. No matter what you choose, the maximum number of rows that appear in the Query Editor is 25.

Results Click Results at the bottom of the dialog to see the results of your query, or an error message if the query contains errors.

SQL Click SQL at the bottom of the dialog to see the SQL code for your query.

Adding a subquery

To add a subquery in the Query Editor, click the Add a Computed Column button, which is located between the lists of columns. The Expression Editor appears. In the Expression Editor, click the Subquery button, which is located beside the Not button.

More information

- ◆ For more information about the Query Editor, see [“Introducing the Query Editor” on page 226](#).
- ◆ For an introduction to columns, see [“Lesson 5: Design column properties” \[Introducing SQL Anywhere Studio, page 271\]](#).
- ◆ For information about selecting columns, see [“The SELECT list: specifying columns” \[ASA SQL User’s Guide, page 217\]](#).

- ◆ For more information about creating subqueries, see [“Expression Editor”](#) on page 240.

INTO tab

Use this tab if you want to return results as procedure parameters.

Dialog components

Include INTO variables Select this option if you want to edit the variable names in the INTO variables column.

Selected columns This box lists all the columns you have chosen for your query.

INTO variables This is a list of variables to receive the value for each select list item. You can type the variable names directly into the fields.

Results Click Results at the bottom of the dialog to see the results of your query, or an error message if the query contains errors.

SQL Click SQL at the bottom of the dialog to see the SQL code for your query.

About INTO

INTO is used in procedures and triggers only. It specifies where the result set goes. There must be one variable for each column.

More information

- ◆ For more information about the Query Editor, see [“Introducing the Query Editor” on page 226](#).
- ◆ For more information about INTO, see [“Returning results as procedure parameters” \[ASA SQL User’s Guide, page 686\]](#).

WHERE tab

Use this tab to restrict the rows in your result set.

Dialog components

Criteria Use the Criteria pane to enter your WHERE conditions. You can type directly into this pane, or use the Expression Editor. To edit existing expressions, highlight the expression before you open the Expression Editor. Otherwise, what you create in the Expression Editor is appended to previously existing expressions.

Expression Editor Click the Calculator icon, located in the bottom right of the Criteria pane, to open the Expression Editor and build your WHERE condition.

Results Click Results at the bottom of the dialog to see the results of your query, or an error message if the query contains errors.

SQL Click SQL at the bottom of the dialog to see the SQL code for your query.

More information

- ◆ For more information about the Query Editor, see [“Introducing the Query Editor” on page 226](#).
- ◆ For an introduction to search conditions, see [“Selecting rows from a table” \[Introducing SQL Anywhere Studio, page 151\]](#).
- ◆ For more information about search conditions, see [“Search conditions” \[ASA SQL Reference, page 23\]](#).

GROUP BY tab

Use this tab if you want to group rows in the result set.

Dialog components

Available columns This box lists all the tables you have chosen for your query, and the columns in each table.

GROUP BY columns To group by a column, select a column or set of columns in the Available Columns box and click the right arrow. To delete a column, select it in the GROUP BY Columns box and click the left arrow. Use the up and down arrows to scroll through the columns in the GROUP BY Columns box.

Expression Editor Click the Calculator icon, located between the right and left arrows, to open the Expression Editor and build your GROUP BY condition.

CUBE button Click this button to create a CUBE operation query. CUBE adds subtotal rows into the result sets of queries with GROUP BY clauses, providing all possible combinations of the variables specified in the query.

ROLLUP button Click this button to create a ROLLUP operation query. ROLLUP adds subtotal rows into the result sets of queries with GROUP BY clauses.

Set button Click this button to create a concatenated grouping sets operation query. Like ROLLUP and CUBE, this operation adds subtotal rows into the result sets of queries with GROUP BY clauses.

GROUPING SETS check box Enable this check box to add GROUPING SETS to a query.

Results Click the Results tab at the bottom of the dialog to see the results of your query, or an error message if the query contains errors.

SQL Click the SQL tab at the bottom of the dialog to see the SQL code for your query.

About GROUP BY conditions

You can group by columns, alias names, or functions. The result of the query contains one row for each distinct set of values in the named columns, aliases, or functions. All null-containing rows are treated as a single set. The resulting rows are often referred to as groups since there is one row in the result for each group of rows from the table list. Aggregate functions can then be applied to these groups to get meaningful results.

When GROUP BY is used, the Columns tab, HAVING tab, and ORDER BY tab must not reference any identifier that is not named in the GROUP BY tab. The exception is that the Columns tab and HAVING tab may contain aggregate functions.

More information

- ◆ For more information about the Query Editor, see [“Introducing the Query Editor” on page 226](#).
- ◆ For an introduction to GROUP BY, see [“Applying aggregate functions to grouped data” \[Introducing SQL Anywhere Studio, page 178\]](#).
- ◆ For more information about GROUP BY, see [“The GROUP BY clause: organizing query results into groups” \[ASA SQL User’s Guide, page 243\]](#).
- ◆ For more information about ROLLUP, see [“Using ROLLUP” \[ASA SQL User’s Guide, page 335\]](#).
- ◆ For more information about CUBE, see [“Using CUBE” \[ASA SQL User’s Guide, page 340\]](#).
- ◆ For more information about GROUPING SETS, see [“Using GROUPING SETS” \[ASA SQL User’s Guide, page 343\]](#).

HAVING tab

Use this tab to restrict the rows in your result set based on group values.

Dialog components

Criteria Use the Criteria pane to enter your HAVING conditions. You can type directly into this pane, or use the Expression Editor. To edit existing expressions, highlight the expression before you open the Expression Editor. Otherwise, what you create in the Expression Editor is appended to previously existing expressions.

Expression Editor Click the Calculator icon, located in the bottom right of the Criteria pane, to open the Expression Editor and build your HAVING condition.

Results Click Results at the bottom of the dialog to see the results of your query, or an error message if the query contains errors.

SQL Click SQL at the bottom of the dialog to see the SQL code for your query.

About HAVING conditions

HAVING conditions can only be used if either the statement has a GROUP BY clause or the selected columns in the Columns tab include only aggregate functions. Any column names referenced in the HAVING clause must either be in the GROUP BY clause or be used as a parameter to an aggregate function in the HAVING clause.

More information

- ◆ For more information about the Query Editor, see [“Introducing the Query Editor” on page 226](#).
- ◆ For an introduction to HAVING, see [“Applying aggregate functions to grouped data” \[Introducing SQL Anywhere Studio, page 178\]](#).
- ◆ For more information about HAVING, see [“The HAVING clause: selecting groups of data” \[ASA SQL User’s Guide, page 248\]](#).

ORDER BY tab

Use this tab to sort the rows in your result set.

Dialog components

Available columns This box lists all the tables you have chosen for your query, and the columns in each table. It also lists any computed columns that you defined in the Columns tab.

ORDER BY columns This box stores the columns you have chosen to sort on. To sort on a column, select a column or set of columns in the Available Columns box and click the right arrow. To delete a column, select it in the ORDER BY Columns box and click the left arrow. Use the up and down arrows to specify the order of column evaluation. You can sort on column aliases.

Expression Editor Click the Calculator icon, located between the right and left arrows, to open the Expression Editor and build your Order By condition.

Results Click Results at the bottom of the dialog to see the results of your query, or an error message if the query contains errors.

SQL Click SQL at the bottom of the dialog to see the SQL code for your query.

About ORDER BY conditions

Each item in the ORDER BY list can be labeled as an up arrow for ascending order (the default) or a down arrow for descending order. To change the order from ascending to descending, double-click the arrow. Alternatively, you can select the arrow and press F2.

The only way to ensure that rows are returned in a particular order is to use ORDER BY. In the absence of an ORDER BY clause, Adaptive Server Anywhere returns rows in whatever order is most efficient. This means that the appearance of result sets may vary depending on when you last accessed the row and other factors.

More information

- ◆ For more information about the Query Editor, see [“Introducing the Query Editor”](#) on page 226.
- ◆ For an introduction to ORDER BY, see [“Ordering query results”](#) [*Introducing SQL Anywhere Studio*, page 148].
- ◆ For more information about ORDER BY, see [“The ORDER BY clause: sorting query results”](#) [*ASA SQL User’s Guide*, page 250] and [“Sorting query results”](#) [*ASA SQL User’s Guide*, page 189].

Expression Editor

The Expression Editor helps you create search conditions, computed columns, and subqueries. To edit existing expressions, highlight the expression before you open the Expression Editor. Otherwise, what you create in the Expression Editor is appended to previously existing expressions when you click OK.

Dialog components

Expression This is where you build your expression.

Columns This box lists the columns that are in your query. To insert a column into your expression, double-click it here, or type it directly into the Expression box.

Functions Functions are predefined expressions used to return information about the database. To insert a function into your expression, choose it from the dropdown list.

☞ For information about functions, see [“SQL Functions” \[ASA SQL Reference, page 91\]](#).

Stored Procedures This box lists the stored procedures that you can use.

Numeric keypad The numeric keypad is located in the bottom left section of the dialog. Click a number to insert it into the expression. You can also type numbers from your keyboard.

Comparison operators These arithmetic symbols, such as =, appear in the middle of the bottom section of the dialog. Click a symbol to insert it into the expression. Only a subset of common operators are included here, but you can type others from your keyboard.

☞ For information about comparison operators, see [“Comparison operators” \[ASA SQL Reference, page 11\]](#).

Logical operators Logical operators, such as AND, appear in the right bottom section of the dialog. Click an operator to insert it into the expression. This group is a subset of commonly used logical operators. You can use any logical operator by typing it from your keyboard.

☞ For information about logical operators, see [“Logical operators” \[ASA SQL Reference, page 12\]](#).

Create a subquery button The subquery button is located with the logical operators. Click it to access a dialog that guides you in creating subqueries.

Adding a subquery

To create a subquery, open the Expression Editor and click the Subquery button (located next to the NOT button). This opens the Subquery dialog, which looks identical to the main Query Editor except that the words

Subquery are in the title bar. You create a subquery just as you create a main query.

Editing a subquery

To edit a subquery in the Query Editor, highlight the subquery in the Criteria box, and click the Expression Editor button. Highlight the code in the Expression Editor, and click the Subquery button.

More information

- ◆ For more information about the Query Editor, see [“Introducing the Query Editor” on page 226](#).
- ◆ For an introduction to search conditions, see [“Selecting rows from a table” \[Introducing SQL Anywhere Studio, page 151\]](#).
- ◆ For more information about search conditions, see [“Search conditions” \[ASA SQL Reference, page 23\]](#).
- ◆ For an introduction to subqueries, see [“Selecting Data Using Subqueries” \[Introducing SQL Anywhere Studio, page 167\]](#).
- ◆ For more information about subqueries, see [“Subqueries in search conditions” \[ASA SQL Reference, page 24\]](#).

Results pane

This pane shows you your result set or an error message. By default, you get only the first 25 rows of your result set. To see the entire result set, export your query back to Interactive SQL by clicking OK.

More information

- ◆ For more information about the Query Editor, see [“Introducing the Query Editor” on page 226](#).
- ◆ For a complete list of error messages, see [ASA Error Messages](#).

SQL pane

This pane shows you the SQL code as it is developed. You can directly edit the code, and the fields are automatically updated in the Query Editor user interface.

You will notice that this SQL looks a little different from the SQL you normally write. This SQL is fully formed, meaning that all tables are prefixed with owner name, all strings are enclosed in quotation marks, and so on. This extra formatting is not normally necessary, but it ensures that the SQL will work in all situations.

More information

- ◆ For more information about the Query Editor, see [“Introducing the Query Editor” on page 226](#).

CHAPTER 8

Adaptive Server Anywhere Console Utility Help

About this chapter This chapter contains help for the Adaptive Server Anywhere Console (dbconsole) utility.

Contents	Topic:	page
	Using the Adaptive Server Anywhere Console utility	246
	Options dialog	247

Using the Adaptive Server Anywhere Console utility

The Adaptive Server Anywhere Console utility provides administration and monitoring facilities for database server connections. The Adaptive Server Anywhere Console utility is available on all operating systems.

☞ For more information about the Adaptive Server Anywhere Console utility, see “[The Adaptive Server Anywhere Console utility](#)” [*ASA Database Administration Guide*, page 497].

Options dialog

You can configure the Adaptive Server Anywhere Console utility using the Options dialog.

The Adaptive Server Anywhere Console utility Options dialog consists of five tabs: Console, Connection Viewer, Message Viewer, Property Viewer, and Check For Updates.

Console options

You can set the following options for the Adaptive Server Anywhere Console utility:

Disable new connections Select this option to prevent other users from connecting to the database. This may be useful for some maintenance operations.

Enable request logging Select this option to record requests that the server processes to the log file. This option is primarily for troubleshooting purposes.

☞ For more information, see “-zr server option” [*ASA Database Administration Guide*, page 168].

Remember last statement Select this option to instruct the database server to capture the most recently-prepared SQL statement for each connection to databases on the server. For stored procedure calls, only the outermost procedure call appears, not the statements within the procedure.

☞ For more information, see “-zl server option” [*ASA Database Administration Guide*, page 166].

Idle client shutdown time Select this option to disconnect connections that have not submitted a request for the amount of time specified in the adjacent field. By default, this value is 120 seconds.

Quitting time You can type a time when the database server is to shut down. Use the same format as the current time, which is as follows:

YYYY-MM-DD HH:NN:SS.SS

Current time Displays the current time.

Log messages to file Select this option to log server messages to a file that you specify in the field below. You can click Browse to locate a file to which server messages are logged.

See also

- ◆ “sa_server_option system procedure” [*ASA SQL Reference*, page 830]

-
- ◆ “Server-level properties” [[ASA Database Administration Guide, page 725](#)]

Connection Viewer

You can set the following options for the Connection Viewer:

Select which connection properties to display Shows the name and description of all connection properties. Select the connection properties you want to appear by placing a checkmark in the checkbox beside the property name.

☞ For more information about the connection properties in this list, see “[Connection-level properties](#)” [[ASA Database Administration Guide, page 713](#)].

Refresh rate Type a time to specify how often the values are refreshed for selected properties. By default, values are refreshed every 4 seconds.

Message Viewer

Setting these options configures the Message Viewer in all places it can be viewed, including the Messages Pane in the Adaptive Server Anywhere Console utility, and the Design Details pane in Sybase Central.

You can set the following options for the Message Viewer:

Messages only Select if you only want messages to appear in the Message Viewer.

Time and messages Select this option if you want the date and time for each message to appear in the Message Viewer.

Refresh rate Type a time to specify how often the values are refreshed for selected properties. By default, values are refreshed every 4 seconds.

Property Viewer

You can set the following options for the Property Viewer:

Database Properties

You can set the following options for database properties:

Select which database properties to display Shows the name and description of all database properties. Select the database properties you want to appear by placing a checkmark in the checkbox beside the property name.

☞ For more information about database properties, see “[Database-level properties](#)” [[ASA Database Administration Guide, page 733](#)].


Refresh rate Type a time to specify how often the values are refreshed for

selected properties. By default, values are refreshed every 4 seconds.

Server Properties

You can set the following options for server properties:

Select which server properties to display Shows the name and description of all database server properties. Select the database server properties you want to appear by placing a checkmark in the checkbox beside the property name.

 For more information about server properties, see “[Server-level properties](#)” [*ASA Database Administration Guide*, page 725].

Refresh rate Type a time to specify how often the values are refreshed for selected properties. By default, values are refreshed every 4 seconds.

Check For Updates

You can configure whether the Adaptive Server Anywhere Console utility should check for software updates and how often it should do so. Checking for updates is done on application startup.

You can check for updates any time from the Start menu by choosing Programs ► SQL Anywhere 9 ► Check For Updates and from the Sybase Central, Interactive SQL, and Console utility Help menus.

The Check For Updates tab of the Options dialog in the Adaptive Server Anywhere Console utility has the following components:

When to check for updates Choose one of the following options to specify how often the Adaptive Server Anywhere Console utility should check for updates. By default, Never is selected.

- ◆ **On application startup** Select this option if you want the Adaptive Server Anywhere Console utility to check for updates each time it is launched.
- ◆ **Daily** Select this option if you want the Adaptive Server Anywhere Console utility to check for updates the first time it is started each day.
- ◆ **Weekly** Select this option if you want SQL Anywhere Studio to check for updates the first time the Adaptive Server Anywhere Console utility is started each week.
- ◆ **Monthly** Select this option if you want the Adaptive Server Anywhere Console utility to check for updates the first time it is started each month.
- ◆ **Never** Select this option if you do not want the Adaptive Server Anywhere Console utility to check for updates. This is the default setting.

What to check for Choose any combination of the following options to specify what types of updates the Adaptive Server Anywhere Console utility should check for. By default, all of the following options are selected.

- ◆ **Express Bug Fix** Select this option if you want the Adaptive Server Anywhere Console utility to check for Express Bug Fixes.

An express bug fix is a subset of the software with one or more bug fixes. The bug fixes are listed in the release notes for the update. Bug fix updates may only be applied to installed software with the same version number. Some testing has been performed on the software, but the software has not undergone full testing. You should not distribute these files with your application unless you have verified the suitability of the software yourself.

- ◆ **Maintenance Release** Select this option if you want the Adaptive Server Anywhere Console utility to check for maintenance releases of the software.

A maintenance release is a complete set of software that upgrades installed software from an older version with the same major version number (version number format is *major.minor.patch.build*). Bug fixes and other changes are listed in the release notes for the upgrade.

- ◆ **Other Information** Select this option to check for other information, such as new product releases or upcoming events.

CHAPTER 9

SQL Language Links

About this chapter

This chapter provides a list of SQL statements that are available to users of Adaptive Server Anywhere. It also includes links to the SQL language elements, data types, and functions supported by Adaptive Server Anywhere.

Contents

Topic:	page
SQL syntax help	252

SQL syntax help

The following list provides links into the Adaptive Server Anywhere documentation for the following topics: SQL language elements, SQL statements, data types, and functions that are available to users of Adaptive Server Anywhere.

- [“Character data types” \[ASA SQL Reference, page 54\]](#)
- [“Numeric data types” \[ASA SQL Reference, page 58\]](#)
- [“Money data types” \[ASA SQL Reference, page 65\]](#)
- [“BIT data type” \[ASA SQL Reference, page 66\]](#)
- [“Date and time data types” \[ASA SQL Reference, page 67\]](#)
- [“Binary data types” \[ASA SQL Reference, page 74\]](#)
- [“Domains” \[ASA SQL Reference, page 77\]](#)
- [“Data type conversions” \[ASA SQL Reference, page 79\]](#)
- [“Year 2000 compliance” \[ASA SQL Reference, page 85\]](#)
- [“Function types” \[ASA SQL Reference, page 92\]](#)
- [“Alphabetical list of functions” \[ASA SQL Reference, page 106\]](#)
- [“Keywords” \[ASA SQL Reference, page 4\]](#)
- [“Identifiers” \[ASA SQL Reference, page 7\]](#)
- [“Strings” \[ASA SQL Reference, page 9\]](#)
- [“Operators” \[ASA SQL Reference, page 11\]](#)
- [“Expressions” \[ASA SQL Reference, page 16\]](#)
- [“Search conditions” \[ASA SQL Reference, page 23\]](#)
- [“Special values” \[ASA SQL Reference, page 33\]](#)
- [“Variables” \[ASA SQL Reference, page 38\]](#)
- [“Comments” \[ASA SQL Reference, page 48\]](#)
- [“NULL value” \[ASA SQL Reference, page 49\]](#)
- [“Using the SQL statement reference” \[ASA SQL Reference, page 261\]](#)
- [“ALLOCATE DESCRIPTOR statement \[ESQL\]” \[ASA SQL Reference, page 264\]](#)
- [“ALTER DATABASE statement” \[ASA SQL Reference, page 266\]](#)

“ALTER DBSPACE statement” [ASA SQL Reference, page 270]
“ALTER DOMAIN statement” [ASA SQL Reference, page 272]
“ALTER EVENT statement” [ASA SQL Reference, page 273]
“ALTER FUNCTION statement” [ASA SQL Reference, page 275]
“ALTER INDEX statement” [ASA SQL Reference, page 276]
“ALTER PROCEDURE statement” [ASA SQL Reference, page 278]
“ALTER PUBLICATION statement” [ASA SQL Reference, page 280]
“ALTER REMOTE MESSAGE TYPE statement [SQL Remote]” [ASA SQL Reference, page 282]
“ALTER SERVER statement” [ASA SQL Reference, page 283]
“ALTER SERVICE statement” [ASA SQL Reference, page 286]
“ALTER SYNCHRONIZATION SUBSCRIPTION statement [MobiLink]” [ASA SQL Reference, page 290]
“ALTER SYNCHRONIZATION USER statement [MobiLink]” [ASA SQL Reference, page 292]
“ALTER TABLE statement” [ASA SQL Reference, page 294]
“ALTER TRIGGER statement” [ASA SQL Reference, page 302]
“ALTER VIEW statement” [ASA SQL Reference, page 303]
“ALTER WRITEFILE statement (deprecated)” [ASA SQL Reference, page 305]
“BACKUP statement” [ASA SQL Reference, page 307]
“BEGIN statement” [ASA SQL Reference, page 312]
“BEGIN TRANSACTION statement” [ASA SQL Reference, page 315]
“CALL statement” [ASA SQL Reference, page 318]
“CASE statement” [ASA SQL Reference, page 320]
“CHECKPOINT statement” [ASA SQL Reference, page 323]
“CLEAR statement [Interactive SQL]” [ASA SQL Reference, page 324]
“CLOSE statement [ESQL] [SP]” [ASA SQL Reference, page 325]
“COMMENT statement” [ASA SQL Reference, page 327]
“COMMIT statement” [ASA SQL Reference, page 329]
“CONFIGURE statement [Interactive SQL]” [ASA SQL Reference, page 331]

“CONNECT statement [ESQL] [Interactive SQL]” [ASA SQL Reference, page 332]

“CREATE COMPRESSED DATABASE statement (deprecated)” [ASA SQL Reference, page 336]

“CREATE DATABASE statement” [ASA SQL Reference, page 338]

“CREATE DBSPACE statement” [ASA SQL Reference, page 344]

“CREATE DECRYPTED FILE statement” [ASA SQL Reference, page 346]

“CREATE DOMAIN statement” [ASA SQL Reference, page 347]

“CREATE ENCRYPTED FILE statement” [ASA SQL Reference, page 349]

“CREATE EVENT statement” [ASA SQL Reference, page 351]

“CREATE EXISTING TABLE statement” [ASA SQL Reference, page 357]

“CREATE EXTERNLOGIN statement” [ASA SQL Reference, page 360]

“CREATE FUNCTION statement” [ASA SQL Reference, page 362]

“CREATE INDEX statement” [ASA SQL Reference, page 368]

“CREATE MESSAGE statement [T-SQL]” [ASA SQL Reference, page 372]

“CREATE PROCEDURE statement” [ASA SQL Reference, page 373]

“CREATE PROCEDURE statement [T-SQL]” [ASA SQL Reference, page 383]

“CREATE PUBLICATION statement” [ASA SQL Reference, page 385]

“CREATE REMOTE MESSAGE TYPE statement [SQL Remote]” [ASA SQL Reference, page 388]

“CREATE SCHEMA statement” [ASA SQL Reference, page 390]

“CREATE SERVER statement” [ASA SQL Reference, page 392]

“CREATE SERVICE statement” [ASA SQL Reference, page 395]

“CREATE STATISTICS statement” [ASA SQL Reference, page 399]

“CREATE SUBSCRIPTION statement [SQL Remote]” [ASA SQL Reference, page 400]

“CREATE SYNCHRONIZATION SUBSCRIPTION statement [MobiLink]” [ASA SQL Reference, page 402]

“CREATE SYNCHRONIZATION USER statement [MobiLink]” [ASA SQL Reference, page 404]

“CREATE TABLE statement” [ASA SQL Reference, page 407]

- “CREATE TRIGGER statement” [ASA SQL Reference, page 419]
- “CREATE TRIGGER statement [SQL Remote]” [ASA SQL Reference, page 423]
- “CREATE TRIGGER statement [T-SQL]” [ASA SQL Reference, page 426]
- “CREATE VARIABLE statement” [ASA SQL Reference, page 427]
- “CREATE VIEW statement” [ASA SQL Reference, page 428]
- “CREATE WRITEFILE statement (deprecated)” [ASA SQL Reference, page 430]
- “DEALLOCATE statement” [ASA SQL Reference, page 432]
- “DEALLOCATE DESCRIPTOR statement [ESQL]” [ASA SQL Reference, page 433]
- “Declaration section [ESQL]” [ASA SQL Reference, page 434]
- “DECLARE statement” [ASA SQL Reference, page 435]
- “DECLARE CURSOR statement [ESQL] [SP]” [ASA SQL Reference, page 436]
- “DECLARE CURSOR statement [T-SQL]” [ASA SQL Reference, page 441]
- “DECLARE LOCAL TEMPORARY TABLE statement” [ASA SQL Reference, page 443]
- “DELETE statement” [ASA SQL Reference, page 445]
- “DELETE (positioned) statement [ESQL] [SP]” [ASA SQL Reference, page 447]
- “DESCRIBE statement [ESQL]” [ASA SQL Reference, page 449]
- “DISCONNECT statement [ESQL] [Interactive SQL]” [ASA SQL Reference, page 453]
- “DROP statement” [ASA SQL Reference, page 454]
- “DROP DATABASE statement” [ASA SQL Reference, page 456]
- “DROP CONNECTION statement” [ASA SQL Reference, page 457]
- “DROP EXTERNLOGIN statement” [ASA SQL Reference, page 458]
- “DROP PUBLICATION statement” [ASA SQL Reference, page 459]
- “DROP REMOTE MESSAGE TYPE statement [SQL Remote]” [ASA SQL Reference, page 460]
- “DROP SERVER statement” [ASA SQL Reference, page 461]

“DROP SERVICE statement” [ASA SQL Reference, page 462]

“DROP STATEMENT statement [ESQL]” [ASA SQL Reference, page 463]

“DROP STATISTICS statement” [ASA SQL Reference, page 464]

“DROP SUBSCRIPTION statement [SQL Remote]” [ASA SQL Reference, page 465]

“DROP SYNCHRONIZATION SUBSCRIPTION statement [MobiLink]” [ASA SQL Reference, page 466]

“DROP SYNCHRONIZATION USER statement [MobiLink]” [ASA SQL Reference, page 467]

“DROP VARIABLE statement” [ASA SQL Reference, page 468]

“EXCEPT operation” [ASA SQL Reference, page 469]

“EXECUTE statement [ESQL]” [ASA SQL Reference, page 471]

“EXECUTE statement [T-SQL]” [ASA SQL Reference, page 473]

“EXECUTE IMMEDIATE statement [SP]” [ASA SQL Reference, page 475]

“EXIT statement [Interactive SQL]” [ASA SQL Reference, page 478]

“EXPLAIN statement [ESQL]” [ASA SQL Reference, page 480]

“FETCH statement [ESQL] [SP]” [ASA SQL Reference, page 482]

“FOR statement” [ASA SQL Reference, page 487]

“FORWARD TO statement” [ASA SQL Reference, page 489]

“FROM clause” [ASA SQL Reference, page 491]

“GET DATA statement [ESQL]” [ASA SQL Reference, page 497]

“GET DESCRIPTOR statement [ESQL]” [ASA SQL Reference, page 499]

“GET OPTION statement [ESQL]” [ASA SQL Reference, page 501]

“GOTO statement [T-SQL]” [ASA SQL Reference, page 502]

“GRANT statement” [ASA SQL Reference, page 503]

“GRANT CONSOLIDATE statement [SQL Remote]” [ASA SQL Reference, page 508]

“GRANT PUBLISH statement [SQL Remote]” [ASA SQL Reference, page 510]

“GRANT REMOTE statement [SQL Remote]” [ASA SQL Reference, page 511]

“GRANT REMOTE DBA statement [SQL Remote]” [ASA SQL Reference, page 513]

“GROUP BY clause” [*ASA SQL Reference*, page 514]
“HELP statement [Interactive SQL]” [*ASA SQL Reference*, page 517]
“IF statement” [*ASA SQL Reference*, page 518]
“IF statement [T-SQL]” [*ASA SQL Reference*, page 520]
“INCLUDE statement [ESQL]” [*ASA SQL Reference*, page 522]
“INPUT statement [Interactive SQL]” [*ASA SQL Reference*, page 523]
“INSERT statement” [*ASA SQL Reference*, page 528]
“INSTALL JAVA statement” [*ASA SQL Reference*, page 532]
“INTERSECT operation” [*ASA SQL Reference*, page 534]
“LEAVE statement” [*ASA SQL Reference*, page 535]
“LOAD STATISTICS statement” [*ASA SQL Reference*, page 537]
“LOAD TABLE statement” [*ASA SQL Reference*, page 538]
“LOCK TABLE statement” [*ASA SQL Reference*, page 546]
“LOOP statement” [*ASA SQL Reference*, page 548]
“MESSAGE statement” [*ASA SQL Reference*, page 549]
“OPEN statement [ESQL] [SP]” [*ASA SQL Reference*, page 553]
“OUTPUT statement [Interactive SQL]” [*ASA SQL Reference*, page 556]
“PARAMETERS statement [Interactive SQL]” [*ASA SQL Reference*, page 561]
“PASSTHROUGH statement [SQL Remote]” [*ASA SQL Reference*, page 562]
“PREPARE statement [ESQL]” [*ASA SQL Reference*, page 563]
“PREPARE TO COMMIT statement” [*ASA SQL Reference*, page 565]
“PRINT statement [T-SQL]” [*ASA SQL Reference*, page 566]
“PUT statement [ESQL]” [*ASA SQL Reference*, page 567]
“RAISERROR statement [T-SQL]” [*ASA SQL Reference*, page 569]
“READ statement [Interactive SQL]” [*ASA SQL Reference*, page 571]
“READTEXT statement [T-SQL]” [*ASA SQL Reference*, page 573]
“RELEASE SAVEPOINT statement” [*ASA SQL Reference*, page 574]
“REMOTE RESET statement [SQL Remote]” [*ASA SQL Reference*, page 575]
“REMOVE JAVA statement” [*ASA SQL Reference*, page 576]

“REORGANIZE TABLE statement” [ASA SQL Reference, page 577]

“RESIGNAL statement” [ASA SQL Reference, page 579]

“RESTORE DATABASE statement” [ASA SQL Reference, page 580]

“RESUME statement” [ASA SQL Reference, page 582]

“RETURN statement” [ASA SQL Reference, page 583]

“REVOKE statement” [ASA SQL Reference, page 585]

“REVOKE CONSOLIDATE statement [SQL Remote]” [ASA SQL Reference, page 587]

“REVOKE PUBLISH statement [SQL Remote]” [ASA SQL Reference, page 588]

“REVOKE REMOTE statement [SQL Remote]” [ASA SQL Reference, page 589]

“REVOKE REMOTE DBA statement [SQL Remote]” [ASA SQL Reference, page 590]

“ROLLBACK statement” [ASA SQL Reference, page 591]

“ROLLBACK TO SAVEPOINT statement” [ASA SQL Reference, page 592]

“ROLLBACK TRANSACTION statement” [ASA SQL Reference, page 593]

“ROLLBACK TRIGGER statement” [ASA SQL Reference, page 594]

“SAVE TRANSACTION statement” [ASA SQL Reference, page 595]

“SAVEPOINT statement” [ASA SQL Reference, page 596]

“SELECT statement” [ASA SQL Reference, page 597]

“SET statement” [ASA SQL Reference, page 604]

“SET statement [T-SQL]” [ASA SQL Reference, page 606]

“SET CONNECTION statement [Interactive SQL] [ESQL]” [ASA SQL Reference, page 610]

“SET DESCRIPTOR statement [ESQL]” [ASA SQL Reference, page 611]

“SET OPTION statement” [ASA SQL Reference, page 613]

“SET OPTION statement [Interactive SQL]” [ASA SQL Reference, page 616]

“SET REMOTE OPTION statement [SQL Remote]” [ASA SQL Reference, page 617]

“SET SQLCA statement [ESQL]” [ASA SQL Reference, page 619]

“SETUSER statement” [ASA SQL Reference, page 620]

“SIGNAL statement” [ASA SQL Reference, page 622]

“START DATABASE statement [Interactive SQL]” [ASA SQL Reference, page 623]

“START ENGINE statement [Interactive SQL]” [ASA SQL Reference, page 625]

“START JAVA statement” [ASA SQL Reference, page 626]

“START LOGGING statement [Interactive SQL]” [ASA SQL Reference, page 627]

“START SUBSCRIPTION statement [SQL Remote]” [ASA SQL Reference, page 628]

“START SYNCHRONIZATION DELETE statement [MobiLink]” [ASA SQL Reference, page 630]

“STOP DATABASE statement” [ASA SQL Reference, page 632]

“STOP ENGINE statement” [ASA SQL Reference, page 633]

“STOP JAVA statement” [ASA SQL Reference, page 634]

“STOP LOGGING statement [Interactive SQL]” [ASA SQL Reference, page 635]

“STOP SUBSCRIPTION statement [SQL Remote]” [ASA SQL Reference, page 636]

“STOP SYNCHRONIZATION DELETE statement [MobiLink]” [ASA SQL Reference, page 637]

“SYNCHRONIZE SUBSCRIPTION statement [SQL Remote]” [ASA SQL Reference, page 639]

“SYSTEM statement [Interactive SQL]” [ASA SQL Reference, page 640]

“TRIGGER EVENT statement” [ASA SQL Reference, page 641]

“TRUNCATE TABLE statement” [ASA SQL Reference, page 642]

“UNION operation” [ASA SQL Reference, page 644]

“UNLOAD statement” [ASA SQL Reference, page 646]

“UNLOAD TABLE statement” [ASA SQL Reference, page 648]

“UPDATE statement” [ASA SQL Reference, page 650]

“UPDATE (positioned) statement [ESQL] [SP]” [ASA SQL Reference, page 655]

“UPDATE statement [SQL Remote]” [ASA SQL Reference, page 657]

“VALIDATE CHECKSUM statement” [ASA SQL Reference, page 660]

“VALIDATE INDEX statement” [ASA SQL Reference, page 661]

“VALIDATE TABLE statement” [ASA SQL Reference, page 662]

“WAITFOR statement” [ASA SQL Reference, page 664]

“WHENEVER statement [ESQL]” [ASA SQL Reference, page 666]

“WHILE statement [T-SQL]” [ASA SQL Reference, page 667]

“WRITETEXT statement [T-SQL]” [ASA SQL Reference, page 668]

CHAPTER 10

UltraLite Schema Painter Help

About this chapter

This chapter provides descriptions of all the dialog boxes you can access from the UltraLite Schema Painter.

Contents

Topic:	page
UltraLite Schema Painter Options dialog	263
New UltraLite Schema dialog	264
Save Schema to PDB file dialog	265
Schema Deployment dialog	266
Database Schema property sheet	267
Database Property Editor dialog	268
New Table dialog	269
New Column property sheet	270
Set Primary Key dialog	271
Save Certificate dialog	272
Set Index dialog	273
Create Foreign Key dialog	274
Map Primary Column dialog	275
Foreign Key property sheet	276
Table property sheet	277
Publication dialog	278
MobiLink Synchronization property sheet	279
Generate Consolidated Database and MobiLink Scripts dialog	284
Preview Scripts and Consolidated Database Table Definitions dialog	285
MobiLink Table Settings dialog	286

Topic:	page
Create UltraLite Database dialog	287

UltraLite Schema Painter Options dialog

This dialog provides options for running the UltraLite Schema Painter.

The UltraLite Schema Painter Options dialog has the following components:

Informational messages Select the warnings and messages you wish to receive.

- ◆ **Warn before closing an open schema file.** Select this option for a warning when closing a schema file that is in use.
- ◆ **Show post-deployment info.** Select this option for post-deployment messages.
- ◆ **Warn when attempting to edit an indexed column.** Select this option for a warning when editing a column already in an index.
- ◆ **Warn before changing the Nullability of a column being added to a primary key.** Select this option for a warning when adding a column that allows null values to a primary key.

Recent files options Click Clear Now to delete the list of recently accessed schema files.

New UltraLite Schema dialog

This dialog provides options for the creation of a new UltraLite schema file.

The New UltraLite Schema dialog has the following components:

What should the new filename for the new UltraLite schema be? Enter a name for your UltraLite schema or click Browse to select an existing schema.

If you choose to browse to an existing schema, click Save to open it.

What collation sequence should be used for your new UltraLite schema? Select a collation sequence from the dropdown list. A collation sequence is a character set and sorting order. For languages based on the Roman alphabet, such as most European languages, the default sequence, **1252LATIN1 - Code Page 122, Windows Latin 1, Western**, will suffice.

Check this to make your UltraLite database case-sensitive. Select this option if you want your UltraLite database to be case-sensitive.

Save Schema to PDB file dialog

This dialog provides options for deploying your schema to a Palm device.

The Save Schema to PDB file dialog has the following components:

Palm Creator ID Enter a Palm Creator ID.

A Palm creator ID is assigned to you by Palm. You can use **Syb3** as your creator ID when you make sample applications for your own learning. However, when you create your commercial application, you should use your own creator ID.

What should the filename for the PDB be? Enter a filename and path for your Palm database file, or click Browse to select a path and filename.

Schema Deployment dialog

This dialog provides options for modifying your database upon deployment.

The Schema Deployment dialog has the following components:

Tables in this schema Lists the tables in the schema.

The current table names are listed in the New Name column; the original table names are in the Old Name column. If a table name has been changed more than once, Old Name will record the name originally given to the table upon creation.

To edit a table's old name, select the table from the list by clicking on it and then click its old name.

Columns for table Lists all the columns in a selected table.

The current column names are listed in the New Name column; the original column names are in the Old Name column. If a column name has been changed more than once, Old Name will record the name originally given to the column upon creation.

To edit a column's old name, select the column from the list by clicking on it and then click its old name.

Database Schema property sheet

The Database Schema property sheet consists of two tabs: General and Certification.

Database Schema property sheet: General tab

The General tab of the Database Schema property sheet has the following components:

Name The name of the schema.

Type The file type (usually UltraLite Schema).

Location The path of the schema file.

Collation sequence The collation sequence used in the file. A collation sequence is a character set and sorting order.

Case-sensitive Yes if the database is case-sensitive, no if it is not.

Database properties Lists various database properties and the values they are set to. Select a database property from the list to edit its value.

Edit Click Edit to edit the selected database property.

Set Defaults Click Set Defaults to set all database properties to their default values.

Database Schema property sheet: Certification tab

The Certification tab of the Database Schema property sheet has the following components:

Set Trusted Roots Certificate Click Set to browse to a Certicom encryption certificate.

Clear Trusted Roots Certificate Click Clear to remove the encryption certificate associated with your schema.

Save/View Trusted Roots Certificate Save and view the certificate associated with your schema.

Database Property Editor dialog

This dialog allows you to edit the values of database properties.

The Database Property Editor dialog has the following components:

Please enter a new value for the database option Enter a new value for the selected database property. Most database properties are very specific about the formatting of their values. If a database property is incorrectly formatted, an error will appear when trying to apply the changes in the Database Schema property sheet.

New Table dialog

This dialog provides options for the creation of a new table in your UltraLite database.

The New Table dialog has the following components:

Name Enter a name for the table.

Columns Lists all the columns currently in the table. Select a column by clicking on its name in the table.

Add Click Add to add a new column to the table.

Edit Click Edit to edit the selected column. This button is only available when a column is selected from the Columns table. Columns included in an index or primary key cannot be edited without first removing them from the index or primary key.

Remove Click Remove to remove the selected column. This button is only available when a column is selected from the Columns table. Columns included in an index or primary key cannot be removed without first removing them from the index or primary key.

Remove All Click Remove All to delete all columns from the table.

Primary Key Click Primary key to designate one or more of the columns in the table as its primary key or to edit an existing primary key.

Synchronize Select synchronization options for the table.

- ◆ **Only changed rows (default)** Synchronizes only those rows that have been changed since the last synchronization.
- ◆ **All rows** Synchronizes all rows in the table.
- ◆ **No rows** This table is not synchronized.

New Column property sheet

The New Column property sheet consists of two tabs: General and Indexes.

New Column property sheet: General tab

The General tab of the New Column property sheet has the following components:

Name Enter a name for the column.

Type Select a data type from the dropdown list.

◆ **Size/Precision** Specify the size of the column for binary or char types, or the precision for numeric types.

◆ **Scale** Specify the scale value for a numeric column.

Column allows null values Check this option to allow null values. Null values are not permitted in primary keys.

Column default Set a default value for the column.

◆ **Default** Select a default value for the column from the list, or choose Specify value... to set a constant value.

◆ **Value** Specify the column value. This option is only available when Specify value is selected as the default value.

◆ **Partition size (optional)** Specify the partition size. The partition size restricts the maximum value that global autoincrement can use. This option is only available when Global autoincrement is selected as the default value.

New Column property sheet: Indexes tab

The Indexes tab of the New Column property sheet has the following components:

Indexes Lists the indexes that contain the selected column.

Set Primary Key dialog

This dialog provides options for the creation and editing of a primary key.

The Set Primary Key dialog has the following components:

Index information Provides information on the index.

- ◆ **Index name** Enter a name for the index. For primary key indexes, the name is set to primary and cannot be changed.
- ◆ **Unique index** Select Unique index to ensure that values are unique and not null. For primary key indexes, this option is checked and cannot be changed.
- ◆ **Unique key** Select Unique key to ensure that values are unique. They may be null. For primary key indexes, this option is checked and cannot be changed.

Indexed Columns Allows you to add or remove columns from the primary key index.

- ◆ **Columns in the table** Lists all columns in the table that are not in the primary key index. Click a column to select it, or hold down Control to select more than one column at a time.
- ◆ **Asc.>>** Click Asc.>> to add one or more columns, chosen from the Columns in table list, to the index in ascending order.
- ◆ **Desc.>>** Click Desc.>> to add one or more columns, chosen from the Columns in table list, to the index in descending order.
- ◆ **<<** Click << to remove one or more columns, chosen from the Columns in the index list, from the index.
- ◆ **Columns in the index** Lists all columns in the primary key index. Click a column to select it, or hold down Control to select more than one column at a time.

Save Certificate dialog

This dialog allows you to save and view the trusted root certificate associated with your schema.

The Save Certificate dialog has the following components:

What should the filename for the certificate be? Enter a filename and path or click Browse to select one.

View certificate after saving Select this option to view the certificate once you have saved it.

Set Index dialog

This dialog provides options for the creation of a new index.

The Set Index dialog has the following components:

Index information Provides information on the index.

- ◆ **Index name** Enter a name for the index.
- ◆ **Unique index** Select Unique index to ensure that values are unique and not null.
- ◆ **Unique key** Select Unique key to ensure that values are unique. They may be null.

Indexed Columns Allows you to add or remove columns from the index.

- ◆ **Columns in the table** Lists all columns in the table that are not in the index. Click a column to select it, or hold down Control to select more than one column at a time.
- ◆ **Asc.>>** Click Asc.>> to add one or more columns, chosen from the Columns in table list, to the index in ascending order.
- ◆ **Desc.>>** Click Desc.>> to add one or more columns, chosen from the Columns in table list, to the index in descending order.
- ◆ **<<** Click << to remove one or more columns, chosen from the Columns in the index list, from the index.
- ◆ **Columns in the index** Lists all columns in the index. Click a column to select it, or hold down Control to select more than one column at a time.

Index property sheet: General tab

The General tab of the Index property sheet has the following components:

Index name The name of the index.

Table The name of the table containing the index.

Unique If yes, values in the index must be unique and not null.

Unique key If yes, values in the index must be unique, but they may be null.

This index includes the following columns: Lists the columns contained in the index and their directions.

Create Foreign Key dialog

This dialog provides options for the creation of a foreign key.

The Create Foreign Key dialog has the following components:

Foreign key name Enter a name for the foreign key.

Primary table Select the primary table from the list of tables in your database.

Eligible indexes Select an index from the list of indexes in your primary table.

Only check values on commit Select this option to check values at commit, rather than upon insertion.

Allow Null in the foreign key columns Allows null values in the columns of your foreign key.

Map Click Map to map a column in your primary table, selected from the table above, to a column in your current table, selected in a subsequent dialog.

Map Primary Column dialog

This dialog provides options for the mapping of a column in your primary table to a column in your current table.

The Map Primary Column dialog has the following components:

Name The name of your primary column.

Type The data type of your primary column.

Default The default value for your primary column.

Direction Select ascending to sort your column in ascending order or descending to sort your column in descending order.

Foreign column Select a column in your current table from the dropdown list to which to map the selected column in your primary table.

Properties Displays the properties of the selected foreign column.

Foreign Key property sheet

The Foreign Key property sheet has a single tab, which has the following components:

Foreign key name The name of the foreign key.

Table The table that contains the foreign key.

Referenced table The table referenced by the foreign key.

Referenced index The index referenced by the foreign key.

Check on commit If yes, checks values at commit, rather than upon insertion.

Nullable If yes, allows null values in the columns of the foreign key.

This foreign key contains the following columns: Lists columns in the foreign key and the columns they map to in the primary table.

Table property sheet

The Table property sheet has a single tab, which has the following components:

Table The name of the referencing table.

Synchronization The synchronization scheme of the referencing table, one of Only changed rows, All rows, or No rows.

Columns Lists the names, types, and inclusion in the primary key for all the columns in the referencing table.

Access the Table property sheet from the Publication dialog.

Publication dialog

This dialog provides options for the creation of a new publication for your UltraLite database. A publication is a database object describing data to be replicated.

The Publication dialog has the following components:

Publication name Enter a name for the publication.

Available tables Lists all the tables in your database not yet in the publication. Click a table to select it, or hold down Control to select more than one table at a time.

>> Click >> to add one or more tables, chosen from the Available tables list, to the publication.

<< Click << to add one or more tables, chosen from the Tables in the publication list, to the publication.

Tables in the publication Lists all the tables in the publication. Click a table to select it, or hold down Control to select more than one table at a time.

MobiLink Synchronization property sheet

The MobiLink Synchronization property sheet consists of several tabs, listed here.

If you open the property sheet from the MobiLink Synchronization folder, the settings on the tabs are default settings that apply to all tables, unless you override them by creating individual table settings.

If you open the property sheet from an individual table, the settings apply to that table only and override the default settings.

To generate consolidated table definitions and synchronisation scripts using the settings in this property sheet, close the property sheet and choose Tools ► Generate Consolidated Tables and Scripts.

MobiLink Synchronization property sheet: Direction tab

The Direction tab of the MobiLink Synchronization property sheet has the following component:

Table synchronization direction Choose whether any scripts generated for this table are for full two-way synchronization, for download only, or for upload only.

- ◆ **Full synchronization** Upload changes to the consolidated database and download changes to this table in the UltraLite database.
- ◆ **Download only** Do not upload changes from this table to the consolidated database. Do download changes from the consolidated database to this table in the UltraLite database.
- ◆ **Upload only** Upload changes from this table to the consolidated database, but do not download changes from the consolidated database to this table.

The details of the synchronization are controlled by settings on the other tabs of this property sheet.

About this property sheet For more information about this property sheet and setting up synchronization scripts, see [“MobiLink Synchronization property sheet” on page 279](#).

MobiLink Synchronization property sheet: Row Increment tab

The Row Increment tab of the MobiLink Synchronization property sheet has the following component:

Download increment Specify a method to select the rows that are downloaded to this table.

- ◆ **Snapshot** In a snapshot download, all rows of the table on the consolidated database are downloaded to the UltraLite database at each synchronization, whether or not they have changed.
- ◆ **Timestamp** In a timestamp-based download, only those rows that have changed since the last download are downloaded.

This choice requires that the timestamp values be stored somewhere. You can choose to use a **shadow table** to store these values. If you check the box to use a shadow table, a table with the suffix `_updated` is created in the consolidated database, to hold the primary key values and a timestamp indicating when the row was last updated.

If you do not use a shadow table, an additional column is added to the table and holds the time that the row was last updated as a timestamp.

- ◆ **Sequence number** In a sequence-based download, you need to specify a column and an expression. For each row, the value in the specified column is compared to the value of the expression you provide. Only rows for which the column value is greater than the expression are downloaded.
- ◆ **Custom SQL expression** Advanced users can specify a custom SQL expression that is evaluated for each row. Only rows for which the expression is true are downloaded.

☞ For more information on these synchronization techniques, see “[Synchronization Techniques](#)” [*MobiLink Administration Guide*, page 45].

About this property sheet For more information about this property sheet and setting up synchronization scripts, see “[MobiLink Synchronization property sheet](#)” on page 279.

SQL Expression dialog

The SQL Expression dialog provides a space for advanced users to enter custom SQL expressions for use in defining synchronization. The dialog can be displayed from several of the tabs on the MobiLink Synchronization property sheet.

For custom downloads, only rows for which the expression evaluates to true are returned.

For sequence number downloads, only rows for which a specified column is equal to this expression are downloaded.

MobiLink Synchronization property sheet: Row partition tab

The Row Partition tab of the MobiLink Synchronization property sheet has the following component:

Partition download rows Specify which rows are present on each remote UltraLite database.

- ◆ **Same data on all remote databases** Each UltraLite database has the same set of rows.
- ◆ **Each row downloaded by only one database** If you choose this option, a column named `ml_user` is added to the consolidated database table. Only rows for which the value in this column matches the MobiLink user name are downloaded.
- ◆ **Use an existing relationship table to partition rows** If you choose this option, only rows for which the indicated column and table matches the MobiLink user name are downloaded.
- ◆ **Partition based on custom expression** Advanced users can specify a table and a SQL expression that specify rows to be downloaded.

☞ For more information on partitioning tables, see [“Partitioning rows among remote databases”](#) [*MobiLink Administration Guide*, page 52].

About this property sheet For more information about this property sheet and setting up synchronization scripts, see [“MobiLink Synchronization property sheet”](#) on page 279.

MobiLink Synchronization property sheet: Deleted Rows tab

The Deleted Rows tab of the MobiLink Synchronization property sheet has the following component:

Deleted row handling There are several options for managing rows that are deleted from the consolidated database:

- ◆ **Never download deletions** Operations that delete rows from this table are not downloaded to the UltraLite database.
- ◆ **Truncate and reload remote table** The entire table is deleted in the UltraLite database, and is refilled with all the rows currently in the consolidated database (subject to any row partitioning).
- ◆ **Download deletions** There are two options for this choice:
 - You can create a shadow table that holds primary key values for rows to be deleted at the UltraLite database.

-
- You can choose to add a column named `inActive` to the table at the consolidated database. This column holds a value that marks the row as inactive.

A disadvantage of this option is that any other application using the consolidated database must be sure to check if a row is inactive in queries from the table.

About this property sheet For more information about this property sheet and setting up synchronization scripts, see [“MobiLink Synchronization property sheet” on page 279](#).

MobiLink Synchronization property sheet: Conflict tab

The Conflict tab of the MobiLink Synchronization property sheet has the following component:

Upload conflict handling Conflicts arise during the upload of rows to the consolidated database. If two users modify the same row on different remote databases, a conflict is detected when the second of the rows arrives at the MobiLink synchronization server. When conflicts can occur, you should define a process to compute the correct values, or at least to log the conflict. For more information about conflicts, see [“Handling conflicts” \[MobiLink Administration Guide, page 64\]](#).

- ◆ **Default: conflicts will not be raised** The data from the UltraLite database is used to update the table.
- ◆ **Update table values** The dropdown list supplies several common choices for conflict resolution. The appropriate choice depends on your business rules for the particular information being updated.

About this property sheet For more information about this property sheet and setting up synchronization scripts, see [“MobiLink Synchronization property sheet” on page 279](#).

MobiLink Synchronization property sheet: Resolution tab

The Resolution tab of the MobiLink Synchronization property sheet has the following component:

When to resolve conflicts Conflict resolution can be carried out immediately, or when all changes have been made to the table. In addition, you can choose whether to use a temporary table to store intermediate values or not.

About this property sheet For more information about this property sheet and setting up synchronization scripts, see [“MobiLink Synchronization property sheet” on](#)

[page 279.](#)

Generate Consolidated Database and MobiLink Scripts dialog

This dialog lets you generate a set of table definitions and synchronization scripts that define an Adaptive Server Anywhere consolidated database. The synchronization scripts are determined by the settings in the MobiLink Synchronization property sheet for each table and the default settings.

The settings you make here may depend on whether this is the first time you have generated a database and scripts or whether you are modifying an existing consolidated database.

This dialog has the following components:

Settings General settings defining global settings for the generation.

- ◆ **MobiLink script version** The synchronization scripts are defined for a script version. Your UltraLite application must specify this version name when it synchronizes to use the generated scripts.
- ◆ **Publications to sync** You can specify one or more publications to synchronize.
- ◆ **Output conflict status messages to ASA window** This option is useful during development.
- ◆ **Emit calls to drop tables and procedures before definition** Check this box if you intend to run the generated SQL script against a database that already contains a previous version of these tables and procedures, and you want to override the definitions with a new set.

Generated SQL Choose the objects you wish to generate. If you have already generated table definitions (for example) you may not wish to re-generate them.

Generated SQL file Specify a file name for the generated SQL file. Once generated, you can run the SQL file against an Adaptive Server Anywhere database from Interactive SQL to create or modify the consolidated database.

Preview Scripts and Consolidated Database Table Definitions dialog

Use this dialog to inspect the table definitions, scripts, and procedures before you generate them. Use the Settings option to filter the objects you wish to inspect.

The scripts and table definitions are defined from the MobiLink Synchronization property sheet. For more information, see [“MobiLink Synchronization property sheet”](#) on page 279.

MobiLink Table Settings dialog

Use this dialog to override the default MobiLink synchronization properties for an individual table. The dialog has the following components:

Available tables Lists all the tables in your database that use the default MobiLink synchronization properties. Click a table to select it, or hold down Control to select more than one table at a time.

>> Click >> to add one or more tables, chosen from the Available tables list, to the list of tables with MobiLink settings.

<< Click << to add one or more tables, chosen from the Tables in the publication list, to the list of tables with MobiLink settings.

Tables with MobiLink settings Lists all the tables for which individual settings are defined, or for which you wish to define individual settings. Click a table to select it, or hold down Control to select more than one table at a time.

Create UltraLite Database dialog

Use this dialog to create an empty UltraLite database file from the schema file you are currently editing. The UltraLite database file typically has extension *.udb*. Utilities such as UltraLite Interactive SQL and UltraLite command-line utilities operate on UltraLite database files, and the combination of this dialog and the UltraLite utilities is useful in designing and testing databases.

The dialog has the following components:

Database type Choose one of the following options:

- ◆ **UNICODE** Strings in the database are stored as Unicode strings. Use this option for Windows CE databases. You can also use it for Windows databases.
- ◆ **Multibyte character set** Strings in the database are stored using an ASCII-based character set or, for languages that use multiple bytes per character, as a multibyte character set such as Shift-JIS. The character set is determined by your Windows operating system settings. You can use this setting for Windows databases.
- ◆ **Palm OS** The database is created as a *pdb* file that can be exported to a Palm OS device.

Initial database ID If you are using primary keys that have a default global autoincrement setting, you must supply an initial database ID that acts as a starting point for the values in those columns.

For more information on global autoincrement columns, see [“Maintaining unique primary keys using global autoincrement”](#) [*MobiLink Administration Guide*, page 57].

UltraLite database file Enter the filename for the database you are creating.

See also

- ◆ [“The UltraLite Interactive SQL utility”](#) [*UltraLite Database User’s Guide*, page 115]
- ◆ [“UltraLite Utilities Reference”](#) [*UltraLite Database User’s Guide*, page 87]

CHAPTER 11

UltraLite Interactive SQL Help

About this chapter

This chapter provides descriptions of all the dialog boxes you can access from UltraLite Interactive SQL.

Contents

Topic:	page
Connection Dialog	290
Old Database Format Dialog	291
Command History Dialog	292
Lookup Table Dialog	293
Options Dialog	294

Connection Dialog

The Connection dialog has the following components:

Filename An UltraLite database file.

For databases created on CE and the desktop, this is a *.udb* file. For UltraLite databases created on the Palm Computing Platform, this is a *.pdb* file.

User ID An UltraLite user ID.

If the UltraLite database does not have user authentication enabled, this field is ignored and you can leave it empty.

Password The password corresponding to the UltraLite user ID.

If the UltraLite database does not have user authentication enabled, this field is ignored and you can leave it empty.

Encryption Key If the database file is encrypted, you must supply the key used to encrypt the file.

Additional Other connection parameters. For a complete list of connection parameters, see [“Connection Parameters”](#) [*UltraLite Database User’s Guide*, page 63].

See also

- ◆ [“User authentication in UltraLite”](#) [*UltraLite Database User’s Guide*, page 40]
- ◆ [“Connection Parameters”](#) [*UltraLite Database User’s Guide*, page 63] [“User authentication in UltraLite”](#) [*UltraLite Database User’s Guide*, page 40]

Old Database Format Dialog

This dialog has the following components:

- ◆ **Upgrade** If you choose this option, UltraLite upgrades the database file to the native format of the current version of the software. This upgrade makes it impossible to use the database from older versions of UltraLite, including applications developed with older versions of the software.
- ◆ **Open Read Only** If you choose this option, UltraLite opens the database in read-only mode. Any changes you make are discarded when UltraLite Interactive SQL closes, even if you commit your changes.

Command History Dialog

The Command History dialog has the following components:

SQL Statements A list of SQL statements executed from this utility in previous sections.

Lookup Table Dialog

The Lookup Table dialog has the following components:

Table list A list of the tables in the database. To display a list of columns in the table, select a table and click Show Columns. To paste the name of a table into the SQL pane of the main window, select a table and click OK.

Options Dialog

The Options dialog has the following components:

Display Null Values As A string that is displayed in the results pane to represent NULL values in the result set.

Fetching Data You can specify a length (number of bytes) at which to truncate long column values for better performance.

Automatic Commit Choose whether to automatically execute a COMMIT statement after each statement or only on exiting the application. If you choose to COMMIT only on exiting the application, changes you make to the database are not permanent until you either enter an explicit COMMIT statement or exit the application.

Plan Display Choose whether to display the query plan graphically or in text format.

The text version can be difficult to interpret but is useful for pasting into other applications. The graphical version is easier to interpret.

☞ For more information on query plans, see “[Query optimization](#)” [*UltraLite Database User's Guide*, page 185].

Index

A

Adaptive Server Anywhere console utility options dialog	247
Adaptive Server Anywhere Console utility [dbconsole]	
configuring	247
connect dialog description	1
preferences	247
setting options	247
Adaptive Server Anywhere Console utility help	245
Adaptive Server Anywhere dialog boxes	121
Adaptive Server Anywhere help	27
add carrier wizard	
description	195
add connection script wizard	
description	195
add gateway wizard	
description	196
add notifier wizard	
description	197
add service dependencies dialog	
description	125
add service group dependencies dialog	
description	125
add service wizard	
description	198
add synchronized table wizard	
description	200
add synchronizing table script wizard	
about	195
add user wizard	
description	201
add version wizard	
description	201
add watch dialog	
description	150
article property sheet	28
articles	
property sheet	28
ASTOP connection parameter	
configuring ODBC data sources	21
autocommit	

configuring ODBC data sources	16
AutoStop connection parameter	
configuring ODBC data sources	21

B

breakpoints dialog	
description	150
buffer size	
configuring ODBC data sources	23

C

carrier property sheet	
description	175
Certicom encryption options dialog	
description	26
change settings dialog	
description	125
change user to consolidated user dialog	
description	127
change user to remote user dialog	
description	127
check constraint property sheet	30
check constraints	
property sheet	30
check for updates tab	
console [dbconsole] utility options dialog	249
Interactive SQL options dialog	168
code editor	
configuring appearance	165
column permissions dialog	
description	128
column property sheet	31
columns	
property sheet	31
Command History dialog	
UltraLite Interactive SQL description	292
configuring	
Adaptive Server Anywhere Console [dbconsole]	
utility	247
Interactive SQL	158
connect dialog	
advanced tab	8

database tab	5	data sources	
description	1	ODBC configuration dialog	12
identification tab	2	database files	
connect to MobiLink server dialog		configuring ODBC data sources	21
description	206	database names	
connected user property sheet	34	configuring ODBC data sources	20
connected users		database options dialog	
property sheet	34	description	131
Connection dialog		database property editor	
UltraLite Interactive SQL description	290	UltraLite Schema Painter	268
connection name		database property sheet	38
configuring ODBC data sources	25	description (ML plug-in)	176
connection viewer		database schema property sheet	
configuring	248	certification tab for UltraLite	267
console utility [dbconsole]		general tab for UltraLite	267
configuring	247	UltraLite Schema Painter	267
connect dialog description	1	databases	
options dialog	247	property sheet	38
preferences	247	dbconsole utility	
setting options	247	connect dialog description	1
consolidated user options dialog		options dialog	247
description	129	dbisqlg.exe	
consolidated user property sheet	35	about	159
consolidated users		dbspace property sheet	42
property sheet	35	dbspaces	
conventions		property sheet	42
documentation	x	debugger help	150
CREATE EVENT statement		definitions	
create schedule dialog	130	property sheet	107
create foreign key dialog		Delphi	
UltraLite Schema Painter	274	configuring ODBC data sources	16
create schedule dialog		describing	
description	130	cursor behavior	16
create trigger condition dialog		device tracker gateway property sheet	
description	131	description	177
CREATE TRIGGER statement		dialog boxes	
create trigger condition dialog	131	about	121
create UltraLite database dialog		Adaptive Server Anywhere	121
UltraLite Schema Painter	287	Adaptive Server Anywhere Console [dbconsole]	
cursors		utility options	247
describing behavior in ODBC data sources	16	Adaptive Server Anywhere plug-in options	136
D		add service dependencies	125
data source description		add service group dependencies	125
configuring ODBC data sources	15	add watch	150
data source name		breakpoints	150
configuring ODBC data sources	15	Certicom encryption options	26
		change settings	125

change user to consolidated user	127	UltraLite Interactive SQL Lookup Table	293
change user to remote user	127	UltraLite Interactive SQL Options	294
column permissions	128	unload data	143
connect dialog	1	update JAR file	144
connect dialogODBC configuration dialog	11	update Java class	145
connect to MobiLink server	206	user authentication	193
consolidated user options	129	user options	145
create schedule	130	watch manager	224
create trigger condition	131	Windows CE message types for SQL Remote	146
database options	131	documentation	
debugger	150	conventions	x
edit or add breakpoint	150	SQL Anywhere Studio	viii
edit schedule	132	domain property sheet	43
edit trigger condition	133	domains	
edit watch	209	property sheet	43
export to database	212	Driver Not Capable error	
filter objects by owner	134	configuring ODBC data sources	16
go to	210		
grant permissions	134	E	
group options	134	edit or add breakpoint dialog	
Interactive SQL options	158	description	150
Interactive SQL	156	edit schedule dialog	
Java source	151	description	132
lookup procedure name	156	edit trigger condition dialog	
lookup table name	157	description	133
MobiLink	192	edit watch dialog	
MobiLink Monitor	205	description	209
MobiLink Monitor options	214	editor tab	
new members	135	Interactive SQL options dialog	165
new memberships	136	encrypted passwords	
new watch	211	configuring ODBC data sources	18
plug-in preferences	121	encryption	
pre-allocate space for dbspace	137	configuring network packet encryption for ODBC	
publisher options	138	data sources	23
remote user options	139	encryption keys	
set clustered index	140	configuring ODBC data sources	21
set consolidated user	140	event property sheet	44
set primary key	141	events	
set publisher	141	property sheet	44
set service group	141	export notification settings wizard	
share version	192	description	202
start database	142	export to database dialog	
test scripts	192	description	212
test scripts options	193	export wizard	
trigger event	143	description	170
UltraLite Interactive SQL Command History	292	Expression Editor	
UltraLite Interactive SQL Connection	290	Query Editor	240

external login property sheet	45	description	203
external logins		import/export tab	
property sheet	45	Interactive SQL options dialog	162
F		Index Consultant	
fast launcher		description	152
Interactive SQL	159	index property sheet	51
setting port number	160	UltraLite Schema Painter	273
Sybase Central	159	indexes	
feedback		property sheet	51
documentation	xiv	integrated login property sheet	53
providing	xiv	integrated logins	
fetch operation		configuring ODBC data sources	18
suppressing warnings	16	property sheet	53
filter objects by owner dialog		Interactive SQL	
description	134	configuring	158
foreign key property sheet		configuring the fast launcher	159
description	46	connect dialog description	1
UltraLite Schema Painter	276	export dialog	170
foreign keys		options dialog	158
property sheet	46	preferences	158
function property sheet	48	setting options	158
functions		Interactive SQL	
property sheet	48	dialog boxes	156
G		Tools menu	156
general tab		Interactive SQL help	153
Interactive SQL options dialog	158	isolation levels	
global notification property sheet		configuring ODBC data sources	15
description	179	J	
go to dialog		JAR file property sheet	53
description	210	JAR files	
grant permissions dialog		property sheet	53
description	134	Java class property sheet	54
group options dialog		Java classes	
description	134	property sheet	54
group property sheet	50	Java source dialog	
groups		description	151
property sheet	50	L	
I		liveness	
icons		configuring ODBC data sources	22
used in manuals	xii	looking up	
idle timeout		columns	157
configuring ODBC data sources	23	procedures	156
import notification settings wizard		tables	157
		lookup procedure name dialog	
		description	156

Lookup Table dialog			
UltraLite Interactive SQL description	293	add connection script	195
lookup table name dialog		add gateway	196
description	157	add notifier	197
M		add service	198
map primary column dialog		add synchronized table	200
UltraLite Schema Painter	275	add table script	195
message type property sheet	54	add user	201
message types		add version	201
property sheet	54	export notification settings	202
message viewer		import notification settings	203
configuring	248	multiple record fetching	
messages tab		configuring ODBC data sources	25
Interactive SQL options dialog	163	N	
Microsoft Access		network protocols	
configuring ODBC data sources	15	configuring ODBC data sources	22
Microsoft Visual Basic		new column property sheet	
configuring ODBC data sources	15	general tab for UltraLite	270
MobiLink dialog boxes	192	indexes tab for UltraLite	270
MobiLink help		UltraLite Schema Painter	270
about	173	new members dialog	
MobiLink Monitor		description	135
connect to MobiLink server	206	new memberships dialog	
MobiLink Monitor dialog boxes	205	description	136
MobiLink Monitor property sheets	205	new schema dialog	
MobiLink property sheets	175	UltraLite Schema Painter	264
MobiLink synchronization definition property sheet		new table dialog	
107		UltraLite Schema Painter	269
MobiLink Synchronization property sheet		new watch dialog	
conflict tab	282	description	211
deleted rows tab	281	newsgroups	
direction tab	279	technical support	xiv
resolution tab	282	Notifier property sheet	
row increment tab	279	description	179
row partition tab	281	O	
UltraLite Schema Painter	279	ODBC configuration dialog	
MobiLink synchronization site property sheet	107	advanced tab	25
MobiLink synchronization template property sheet		DBMLSync tab	13
107		description	12
MobiLink user property sheet	55	Login tab	18
MobiLink users		Network tab	22
authentication dialog	193	ODBC tab	15
property sheet	55	ODBC data sources	
MobiLink wizards		ODBC configuration dialog	12
about	195	options	
add carrier	195		

Adaptive Server Anywhere Console [dbconsole]		device tracker gateway	177
utility	247	domains	43
Interactive SQL	158	events	44
Options dialog		external logins	45
UltraLite Interactive SQL description	294	foreign keys	46
options dialog		functions	48
configuring Interactive SQL	158	global notification	179
configuring the Adaptive Server Anywhere Console [dbconsole] utility	247	groups	50
configuring the Adaptive Server Anywhere plug-in	136	indexes	51
configuring the MobiLink Monitor	214	integrated logins	53
		introduction	28
		JAR files	53
		Java classes	54
		message types	54
		MobiLink	175
		MobiLink Monitor	205
		MobiLink services	183
		MobiLink synchronization definitions	107
		MobiLink synchronization sites	107
		MobiLink synchronization templates	107
		MobiLink users	55
		Notifier	179
		procedures	65
		proxy tables	66
		publications	68
		publisher	80
		remote procedures	82
		remote servers	83
		remote users	84
		servers	87
		session	219
		site	107
		SMTP gateway	185
		SQL Remote subscription	92
		statistics	92
		synchronization	220
		synchronization subscription	93
		system triggers	102
		tables	103
		template	107
		triggers	111
		UDP gateway	188
		UltraLite projects	112
		UltraLite statements	112
		unique constraints	113
		users (Adaptive Server Anywhere)	114
		users (MobiLink)	190
P			
passwords			
configuring ODBC data sources	18		
plan tab			
Interactive SQL options dialog	163		
plug-in preferences dialog			
description	121		
port number			
fast launcher	160		
pre-allocate space for dbspace dialog			
description	137		
preferences			
Adaptive Server Anywhere Console [dbconsole]			
utility	247		
Interactive SQL	158		
procedure property sheet	65		
procedures			
looking up in Interactive SQL	156		
property sheet	65		
projects			
property sheet	112		
property sheets			
Adaptive Server Anywhere	28		
Adaptive Server Anywhere services	89		
articles	28		
carrier	175		
check constraint	30		
columns	31		
connected users	34		
consolidated users	35		
database	176		
databases	38		
dbspaces	42		
definition	107		

versions	190	remote servers	
views	116	property sheet	83
web services	117	remote user options dialog	
property viewer		description	139
configuring	248	remote user property sheet	84
proxy table property sheet	66	remote users	
proxy tables		property sheet	84
property sheet	66	results	
publication dialog		exporting from Interactive SQL	170
UltraLite Schema Painter	278	results tab	
publication property sheet	68	Interactive SQL options dialog	160
publications			
property sheet	68	S	
publisher		save certificate dialog	
property sheet	80	UltraLite Schema Painter	272
publisher options dialog		save schema to PDB file dialog	
description	138	UltraLite Schema Painter	265
publisher property sheet	80	schema deployment dialog	
		UltraLite Schema Painter	266
Q		schema options dialog	
Query Editor	225	UltraLite Schema Painter	263
Columns tab	232	scjview.exe	
Expression Editor	240	about	159
GROUP BY tab	236	server name	
HAVING tab	238	configuring ODBC data sources	20
INTO tab	234	server property sheet	87
introducing	226	servers	
Joins tab	230	property sheet	87
limitations	227	service property sheet	
ORDER BY tab	239	Adaptive Server Anywhere	89
Results pane	242	MobiLink	183
SQL pane	243	services	
Tables tab	228	property sheet (Adaptive Server Anywhere)	89
Transact-SQL not supported	227	property sheet (MobiLink)	183
troubleshooting joins	231	session property sheet	
unions not supported	227	description	219
WHERE tab	235	set clustered index dialog	
query editor tab		description	140
Interactive SQL options dialog	167	set consolidated user dialog	
		description	140
R		set index dialog	
redescribing cursors		UltraLite Schema Painter	273
ODBC data sources	16	set primary key dialog	
remote procedure property sheet	82	description	141
remote procedures		UltraLite Schema Painter	271
property sheet	82	set publisher dialog	
remote server property sheet	83	description	141

set service group dialog			
description	141		
setting options			
Adaptive Server Anywhere Console [dbconsole]			
utility	247		
Interactive SQL	158		
share version dialog			
description	192		
sites			
property sheet	107		
SMTP gateway property sheet			
description	185		
software			
checking for updates	168		
SQL Anywhere Studio			
documentation	viii		
SQL expression dialog			
UltraLite Schema Painter	280		
SQL language links	251		
SQL Remote subscription property sheet	92		
SQL Remote subscriptions			
property sheet	92		
SQL Statements pane			
configuring appearance	165		
start database dialog			
description	142		
start line			
configuring ODBC data sources	20		
statistic property sheet	92		
statistics			
property sheet	92		
support			
newsgroups	xiv		
Sybase Central			
configuring the fast launcher	159		
connect dialog description	1		
dialog descriptions	121		
property sheet descriptions	28		
synchronization definition property sheet	107		
synchronization definitions			
property sheet	107		
synchronization property sheet			
description	220		
synchronization site property sheet	107		
synchronization sites			
property sheet	107		
synchronization subscription property sheet	93		
synchronization subscriptions			
property sheet	93		
synchronization template property sheet	107		
synchronization templates			
property sheet	107		
system trigger property sheet	102		
system triggers			
property sheet	102		
T			
table property sheet	103		
UltraLite Schema Painter	277		
tables			
property sheet	103		
technical support			
newsgroups	xiv		
templates			
property sheet	107		
test scripts dialog			
description	192		
test scripts options dialog			
description	193		
Tools menu			
Interactive SQL	156		
Transact-SQL			
not supported in Query Editor	227		
trigger conditions			
create trigger condition dialog	131		
trigger event dialog			
description	143		
trigger property sheet	111		
triggers			
create trigger condition dialog	131		
property sheet	111		
troubleshooting			
Query Editor runs slowly	228		
U			
UDP gateway property sheet			
description	188		
UltraLite project property sheet	112		
UltraLite projects			
property sheet	112		
UltraLite statement property sheet	112		
unions			
not supported in Query Editor	227		
unique constraint property sheet	113		

unique constraints		add service	198
property sheet	113	add synchronized table	200
unload data dialog		add table script	195
description	143	add user	201
update JAR file dialog		add version	201
description	144	export	170
update Java class dialog		export notification settings	202
description	145	import notification settings	203
user authentication dialog		MobiLink	195
description	193		
user IDs			
configuring ODBC data sources	18		
user interface			
dialog boxes	121		
property sheets	28		
user options dialog			
description	145		
user property sheet			
Adaptive Server Anywhere	114		
MobiLink	190		
users			
property sheet (Adaptive Server Anywhere)	114		
property sheet (MobiLink)	190		
V			
version property sheet	190		
versions			
property sheet	190		
view property sheet	116		
views			
property sheet	116		
Visual Basic			
configuring ODBC data sources	15		
W			
watch manager dialog			
description	224		
web services			
property sheet	117		
web services property sheet	117		
Windows CE message types for SQL Remote dialog			
description	146		
wizards			
add carrier	195		
add connection script	195		
add gateway	196		
add notifier	197		