



Using the PowerBuilder Foundation Class Library with Appeon

Appeon® 3.1 for PowerBuilder®

For Windows

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Introducing ACF



ACF Introduction

What is ACF

Appeon-compliant Framework (ACF) is a set of PowerBuilder objects that are extracted from the PowerBuilder Foundation Class (PFC) and are modified to be suitable for Appeon Web migration. ACF can be regarded as the revised version of PFC.

Why ACF

ACF is the solution to migrate existing PowerBuilder PFC applications onto the Web. Earlier versions of Appeon for PowerBuilder cannot migrate PFC applications because the PFC framework contains too many unsupported features. To solve this problem, Appeon has modified the PFC framework - removing or rewriting its unsupported features - to get the ACF.

The ACF is compatible with the PFC framework, which means that you can replace the PFC framework with the ACF in your PFC applications, and migrate the PFC applications as any standard PowerBuilder application.

How is ACF used

ACF is mainly intended for use with migrating existing PFC applications. But nothing prevents you to use ACF to build new applications.

ACF Architecture

Inheritance Hierarchy

To keep compatible with PFC to the most possible extent, the inheritance hierarchy of ACF is exactly the SAME as PFC.

Ancestor level & Extension level

Like PFC, ACF implements an ancestor level and an extension level. Objects in the ancestor-level libraries contain all instance variables, events, and functions; objects in the extension-level libraries are unmodified descendants of corresponding objects in the ancestor library.

Object inheritance

Objects in ACF are inherited in the same way as in PFC. For example, `pfc_n_base` is the ancestor object for all ACF custom class user objects, and `pfc_u_base` is the base object for all ACF custom visual user objects.

Objects

Most PFC objects are extracted into ACF. ACF uses the same object naming conventions as PFC. For example, `pfc_w_master` is the master Window and is in the ACF ancestor level; `n_cst_dwsrv` is the custom class user object for DataWindow services and is in the ACF extension level.

Object Functions and Events

For any ACF object, its function/event names and function/event parameters are kept the same as the corresponding PFC object. This is to ensure the most

compatibility when the PFC framework is replaced with ACF in the PFC applications to be migrated. However, there will be actually useless parameters in a few object functions/events, since Appeon has simplified their script.

Object Instance Variables

Most of the instance variables of supported PFC objects are supported in ACF.

Extracted and Un-extracted Objects



Extracted Objects

As the revised version of PFC, Appeon-compliant Framework (ACF) is made up of a set of objects that are extracted from PFC. Each ACF object corresponds to the PFC object with the same name, and this ACF object has the same interface as its PFC counterpart. For example, the ACF `pfm_n_cst_appmanager` object is extracted from the PFC `pfm_n_cst_appmanager` object, with the same functions, events and instance variables as the PFC `pfm_n_cst_appmanager`.

Because of the same interface, you can use ACF objects, calling their functions and events, in the same way as you use PFC objects.

[Extracted objects](#) (ACF objects) can be classified into the following three categories:

- [Supported objects](#) are extracted from the corresponding PFC objects, with some or little modification of the PFC objects' original source code. These objects are both functional in PowerBuilder applications and after the client/server applications are migrated onto the Web.
- [Preserved objects](#) are extracted from the corresponding PFC objects, with the original source code of the PFC objects being entirely commented. Therefore, preserved objects have only empty functions and events that are not functional both in client/server and after translated onto the Web.
- [Debugging objects](#) are extracted from the corresponding PFC objects, with no modification of the PFC objects' original source code. Debugging objects are only to help debug the PowerBuilder applications, and are not loaded in migrated Web applications. Therefore, debugging objects are functional in client/server, but not functional on the Web.

Un-extracted Objects

Un-extracted objects are the PFC objects that are not extracted into ACF, and as a result, you should avoid them in your PFC applications to be migrated by Appeon. These PFC objects are not extracted because they relates to functionalities that go beyond Web applications' capabilities or the supportabilities of Appeon products in the near future.

[Click here](#) to see a complete [list of un-extracted PFC objects](#).

PFC Application Web Migration



Before you try converting a PFC application, backup it first and then perform the following steps to prepare it ready for Web migration:

STEP 1: Swap the PFC ancestor Level PBLs with the ACF ancestor level PBLs in the target PFC application to be migrated.

STEP 2: Delete the un-extracted objects in the PFC extension level PBLs of the target PFC application.

If the Corporate Class Library contains additional layers for business rules, delete in these layers any of the objects that have inheritance relationship with the un-extracted objects.

STEP 3: Perform a Full Build to the target PFC application. Since in Step 1 and Step 2, you have swapped PFC ancestor level with ACF ancestor level, and may have deleted objects in the PFC extension level, there would likely be many error messages in the Output window when performing the Full Build.

STEP 4: Correct the errors displayed in the Output window one by one. Correct the errors until no errors display when performing Full Build again. If there are too many errors at first, this step may be time consuming. However, the more you are familiar with the target PFC application's code logic, the easier you will do this job.

STEP 5: Run the target PFC application in PowerBuilder, and check for the dysfunction:

- Functionalities related to the [ACF Preserved Objects](#) should be totally lost. Pay special attention to these functionalities, and if necessary, modify source code to compensate the functional impairment.
- The [ACF Supported Objects](#) have some limitations, so functionalities related to these objects in the target PFC application would also have some limitations. Pay attention to these functionalities, and if necessary, modify source code to compensate the functional impairment.
- Notice that the functionalities related to the [ACF Debugging Objects](#) will only work in the desktop environment, and will be lost on the Web.

STEP 6: Modify the target PFC application to remove the dysfunction. Perform Full Build and optimize application PBLs in PowerBuilder IDE.

After the above steps, the target PFC application becomes Appeon-compliant for Web migration.



n_cst_environment



Description

n_cst_environment is a new user object introduced in the Appeon Foundation Class. This user object has only one coded function: of_iscs (). The function checks if an application is running in client/server or on Web.

Function	of_iscs ()

Syntax	
Return Value	Boolean. Return TRUE if an application is running in C/S, and FALSE if running in B/S.

Library

PFC_APPEON.PBL
PFE_APPEON.PBL

Usage

In the ACF code library, this function is used to decide whether to start application [debugging services](#) according to the environment (client/server vs. Web) in which an application is running.

The end user, by utilizing the of_iscs() function, can make code executed depending on the application running environment. For example, you can embrace Appeon unsupported code in a IF ... THEN statement that uses of_iscs () as the testing condition. In this way, it is guaranteed that the unsupported code will only execute in C/S environment, and will not execute on Web.

The following code example solves the problem with the PopMenu function. The PopMenu function displays a menu at a specified location. However, the menu display location may differ in a PowerBuilder application and its corresponding Web application. To fix this problem, you can pop up the menu in different locations according to the application running environment.

```
n_cst_environment lnv_environment
IF lnv_environment.of_iscs() THEN
    lm_view.m_viewitem.PopMenu (lw_parent.PointerX() + 5,
    lw_parent.PointerY() + 10)
ELSE
    lm_view.m_viewitem.PopMenu (lw_parent.PointerX() + 5,
    lw_parent.PointerY() - 100)
END IF
```

Extracted Objects



Extracted Objects

The following table lists all the ACF objects that are extracted from their PFC counterparts. In extracting PFC objects into ACF, the PFC objects' source code may be modified as necessary. Please refer to [Extracted and Un-extracted PFC Objects](#) for more information.

Library	Object Name
pfcapsrv.pbl	f_SetFilesrv
pfcapsrv.pbl	f_SetPlatform
pfcapsrv.pbl	n_cst_aboutattrib
pfcapsrv.pbl	n_cst_appmanager
pfcapsrv.pbl	n_cst_apppreference

pfcapsrv.pbl	n_cst_color
pfcapsrv.pbl	n_cst_columnattrib
pfcapsrv.pbl	n_cst_conversion
pfcapsrv.pbl	n_cst_datetime
pfcapsrv.pbl	n_cst_dberrorattrib
pfcapsrv.pbl	n_cst_dirattrib
pfcapsrv.pbl	n_cst_dropdown
pfcapsrv.pbl	n_cst_dwcache
pfcapsrv.pbl	n_cst_dwcacheattrib
pfcapsrv.pbl	n_cst_error
pfcapsrv.pbl	n_cst_errorattrib
pfcapsrv.pbl	n_cst_filesrv
pfcapsrv.pbl	n_cst_filesrvaix
pfcapsrv.pbl	n_cst_filesrvhpux
pfcapsrv.pbl	n_cst_filesrvsol2
pfcapsrv.pbl	n_cst_filesrvunicode
pfcapsrv.pbl	n_cst_filesrvwin32
pfcapsrv.pbl	n_cst_findattrib
pfcapsrv.pbl	n_cst_infoattrib
pfcapsrv.pbl	n_cst_inifile
pfcapsrv.pbl	n_cst_itemattrib
pfcapsrv.pbl	n_cst_linkedlistbase
pfcapsrv.pbl	n_cst_linkedlistnode
pfcapsrv.pbl	n_cst_linkedlistnodecompare
pfcapsrv.pbl	n_cst_list
pfcapsrv.pbl	n_cst_logonattrib
pfcapsrv.pbl	n_cst_luw
pfcapsrv.pbl	n_cst_lvsvr
pfcapsrv.pbl	n_cst_lvsvr_datasource
pfcapsrv.pbl	n_cst_lvsvr_sort
pfcapsrv.pbl	n_cst_lvsvrattrib
pfcapsrv.pbl	n_cst_mru
pfcapsrv.pbl	n_cst_mrualtrib
pfcapsrv.pbl	n_cst_nodebase
pfcapsrv.pbl	n_cst_nodecomparebase
pfcapsrv.pbl	n_cst_numerical
pfcapsrv.pbl	n_cst_platform
pfcapsrv.pbl	n_cst_platformaix
pfcapsrv.pbl	n_cst_platformhpux
pfcapsrv.pbl	n_cst_platformsol2
pfcapsrv.pbl	n_cst_platformunicode
pfcapsrv.pbl	n_cst_platformwin32
pfcapsrv.pbl	n_cst_queue

pfcwnsrv.pbl	n_cst_resize
pfcwnsrv.pbl	n_cst_resizeattrib
pfcapsrv.pbl	n_cst_returnattrib
pfcapsrv.pbl	n_cst_security
pfcapsrv.pbl	n_cst_selection
pfcapsrv.pbl	n_cst_selectionattrib
pfcapsrv.pbl	n_cst_splashattrib
pfcapsrv.pbl	n_cst_sql
pfcapsrv.pbl	n_cst_sqlattrib
pfcapsrv.pbl	n_cst_stack
pfcapsrv.pbl	n_cst_string
pfcapsrv.pbl	n_cst_textstyleattrib
pfcapsrv.pbl	n_cst_tree
pfcapsrv.pbl	n_cst_treenode
pfcapsrv.pbl	n_cst_treenodecompare
pfcapsrv.pbl	n_cst_trregistration
pfcapsrv.pbl	n_cst_trregistrationattrib
pfcapsrv.pbl	n_cst_tvsvr
pfcapsrv.pbl	n_cst_tvsvr_levelsource
pfcapsrv.pbl	n_cst_tvsvr_print
pfcapsrv.pbl	n_cst_tvsvrattrib
pfcapsrv.pbl	s_pagesetupattrib
pfcapsrv.pbl	s_paperattrib
pfcapsrv.pbl	s_printdlgattrib
pfcapsrv.pbl	w_about
pfcapsrv.pbl	w_find
pfcapsrv.pbl	w_logon
pfcapsrv.pbl	w_message
pfcapsrv.pbl	w_pagesetup
pfcapsrv.pbl	w_print
pfcapsrv.pbl	w_replace
pfcapsrv.pbl	w_selection
pfcapsrv.pbl	w_splash
pfcdwsrv.pbl	n_cst_dssrv
pfcdwsrv.pbl	n_cst_dssrv_multitable
pfcdwsrv.pbl	n_cst_dssrv_multitableattrib
pfcdwsrv.pbl	n_cst_dssrv_printpreview
pfcdwsrv.pbl	n_cst_dssrv_report
pfcdwsrv.pbl	n_cst_dwobjectattrib
pfcdwsrv.pbl	n_cst_dwsrv
pfcdwsrv.pbl	n_cst_dwsrv_dropdownsearch
pfcdwsrv.pbl	n_cst_dwsrv_dropdownsearchattrib
pfcdwsrv.pbl	n_cst_dwsrv_filter

pfcdwsrv.pbl	n_cst_dwsrv_find
pfcdwsrv.pbl	n_cst_dwsrv_linkage
pfcdwsrv.pbl	n_cst_dwsrv_multitable
pfcdwsrv.pbl	n_cst_dwsrv_multitableattrib
pfcdwsrv.pbl	n_cst_dwsrv_printpreview
pfcdwsrv.pbl	n_cst_dwsrv_querymode
pfcdwsrv.pbl	n_cst_dwsrv_querymodeattrib
pfcdwsrv.pbl	n_cst_dwsrv_report
pfcdwsrv.pbl	n_cst_dwsrv_reqcolumn
pfcdwsrv.pbl	n_cst_dwsrv_resize
pfcdwsrv.pbl	n_cst_dwsrv_resizeattrib
pfcdwsrv.pbl	n_cst_dwsrv_rowmanager
pfcdwsrv.pbl	n_cst_dwsrv_rowselection
pfcdwsrv.pbl	n_cst_dwsrv_sort
pfcdwsrv.pbl	n_cst_filterattrib
pfcdwsrv.pbl	n_cst_linkageattrib
pfcdwsrv.pbl	n_cst_restorerowattrib
pfcdwsrv.pbl	n_cst_sortattrib
pfcdwsrv.pbl	s_svalue
pfcdwsrv.pbl	w_filterextended
pfcdwsrv.pbl	w_filtersimple
pfcdwsrv.pbl	w_restorerow
pfcdwsrv.pbl	w_sortdragdrop
pfcdwsrv.pbl	w_sortmulti
pfcdwsrv.pbl	w_sortsingle
pfcmain.pbl	m_dw
pfcmain.pbl	m_edit
pfcmain.pbl	m_lvs
pfcmain.pbl	m_tv
pfcmain.pbl	m_view
pfcmain.pbl	n_base
pfcmain.pbl	n_cst_baseattrib
pfcmain.pbl	n_cst_calculatorattrib
pfcmain.pbl	n_cst_calendarattrib
pfcmain.pbl	n_cst_tvattrib
pfcmain.pbl	n_ds
pfcmain.pbl	n_msg
pfcmain.pbl	n_tr
pfcmain.pbl	u_base
pfcmain.pbl	u_calculator
pfcmain.pbl	u_calendar
pfcmain.pbl	u_cb
pfcmain.pbl	u_cbx

pfcmain.pbl	u_ddlb
pfcmain.pbl	u_ddplb
pfcmain.pbl	u_dw
pfcmain.pbl	u_em
pfcmain.pbl	u_gb
pfcmain.pbl	u_lb
pfcmain.pbl	u_lv
pfcmain.pbl	u_lvs
pfcmain.pbl	u_mle
pfcmain.pbl	u_p
pfcmain.pbl	u_pb
pfcmain.pbl	u_plb
pfcmain.pbl	u_progressbar
pfcmain.pbl	u_rb
pfcmain.pbl	u_sle
pfcmain.pbl	u_st
pfcmain.pbl	u_st_splitbar
pfcmain.pbl	u_tab
pfcmain.pbl	u_tabpg
pfcmain.pbl	u_tv
pfcmain.pbl	u_tvs
pfcmain.pbl	w_child
pfcmain.pbl	w_frame
pfcmain.pbl	w_main
pfcmain.pbl	w_master
pfcmain.pbl	w_popup
pfcmain.pbl	w_response
pfcmain.pbl	w_sheet
pfcutil.pbl	n_cst_debug
pfcutil.pbl	n_cst_dwpropertyattrib
pfcutil.pbl	n_cst_dwsrv_property
pfcutil.pbl	n_cst_propertyattrib
pfcutil.pbl	n_cst_sqlspy
pfcutil.pbl	u_tab_dwproperty
pfcutil.pbl	u_tab_dwproperty_srv
pfcutil.pbl	u_tabpb_dwproperty_base
pfcutil.pbl	u_tabpb_dwproperty_buffers
pfcutil.pbl	u_tabpb_dwproperty_services
pfcutil.pbl	u_tabpb_dwproperty_srvcalculator
pfcutil.pbl	u_tabpb_dwproperty_srvcalendar
pfcutil.pbl	u_tabpb_dwproperty_srvcalendar2
pfcutil.pbl	u_tabpb_dwproperty_srvdropdownsearch
pfcutil.pbl	u_tabpb_dwproperty_srvfilter

pfcutil.pbl	u_tabpb_dwproperty_srvfind
pfcutil.pbl	u_tabpb_dwproperty_srvlinkage
pfcutil.pbl	u_tabpb_dwproperty_srvlinkage2
pfcutil.pbl	u_tabpb_dwproperty_srvmultitable
pfcutil.pbl	u_tabpb_dwproperty_srvprintpreview
pfcutil.pbl	u_tabpb_dwproperty_srvquerymode
pfcutil.pbl	u_tabpb_dwproperty_srvreport
pfcutil.pbl	u_tabpb_dwproperty_srvreqcolumn
pfcutil.pbl	u_tabpb_dwproperty_srvresize
pfcutil.pbl	u_tabpb_dwproperty_srvrowmanager
pfcutil.pbl	u_tabpb_dwproperty_srvrowselection
pfcutil.pbl	u_tabpb_dwproperty_srvsort
pfcutil.pbl	u_tabpb_dwproperty_srvsyntax
pfcutil.pbl	u_tabpb_dwproperty_status
pfcutil.pbl	w_debuglog
pfcutil.pbl	w_dwproperty
pfcutil.pbl	w_dwpropertyservices
pfcutil.pbl	w_sqlspy
pfcutil.pbl	w_sqlspyinspect
pfcwnsrv.pbl	m_master
pfcwnsrv.pbl	n_cst_menu
pfcwnsrv.pbl	n_cst_winsrv
pfcwnsrv.pbl	n_cst_winsrv_preference
pfcwnsrv.pbl	n_cst_winsrv_sheetmanager
pfcwnsrv.pbl	n_cst_winsrv_sheetmanagerattrib
pfewnsrv.pbl	m_frame

Supported Objects



ACF Supported Objects

The following table lists the ACF supported objects.

Library	Object Name
pfcapsrv.pbl	n_cst_aboutattrib
pfcapsrv.pbl	n_cst_appmanager
pfcapsrv.pbl	n_cst_apppreference
pfcapsrv.pbl	n_cst_color
pfcapsrv.pbl	n_cst_columnattrib
pfcapsrv.pbl	n_cst_conversion
pfcapsrv.pbl	n_cst_datetime
pfcapsrv.pbl	n_cst_dberrorattrib
pfcapsrv.pbl	n_cst_dirattrib

pfcapsrv.pbl	n_cst_dwcache
pfcapsrv.pbl	n_cst_dwcacheattrib
pfcapsrv.pbl	n_cst_error
pfcapsrv.pbl	n_cst_errorattrib
pfcapsrv.pbl	n_cst_findattrib
pfcapsrv.pbl	n_cst_infoattrib
pfcapsrv.pbl	n_cst_itemattrib
pfcapsrv.pbl	n_cst_linkedlistbase
pfcapsrv.pbl	n_cst_linkedlistnode
pfcapsrv.pbl	n_cst_linkedlistnodecompare
pfcapsrv.pbl	n_cst_list
pfcapsrv.pbl	n_cst_logonattrib
pfcapsrv.pbl	n_cst_luw
pfcapsrv.pbl	n_cst_lvsvr
pfcapsrv.pbl	n_cst_lvsvr_datasource
pfcapsrv.pbl	n_cst_lvsvr_sort
pfcapsrv.pbl	n_cst_lvsvrattrib
pfcapsrv.pbl	n_cst_mru
pfcapsrv.pbl	n_cst_mrattrib
pfcapsrv.pbl	n_cst_nodebase
pfcapsrv.pbl	n_cst_nodecomparebase
pfcapsrv.pbl	n_cst_numerical
pfcapsrv.pbl	n_cst_queue
pfcwsvr.pbl	n_cst_resize
pfcwsvr.pbl	n_cst_resizeattrib
pfcapsrv.pbl	n_cst_returnattrib
pfcapsrv.pbl	n_cst_security
pfcapsrv.pbl	n_cst_selection
pfcapsrv.pbl	n_cst_selectionattrib
pfcapsrv.pbl	n_cst_splashattrib
pfcapsrv.pbl	n_cst_sql
pfcapsrv.pbl	n_cst_sqlattrib
pfcapsrv.pbl	n_cst_stack
pfcapsrv.pbl	n_cst_string
pfcapsrv.pbl	n_cst_textstyleattrib
pfcapsrv.pbl	n_cst_tree
pfcapsrv.pbl	n_cst_treenode
pfcapsrv.pbl	n_cst_treenodecompare
pfcapsrv.pbl	n_cst_tregistration
pfcapsrv.pbl	n_cst_tregistrationattrib
pfcapsrv.pbl	n_cst_tvsvr
pfcapsrv.pbl	n_cst_tvsvr_levelsource
pfcapsrv.pbl	n_cst_tvsvrattrib

pfcapsrv.pbl	s_pagesetupattrib
pfcapsrv.pbl	s_paperattrib
pfcapsrv.pbl	s_printdlgattrib
pfcapsrv.pbl	w_about
pfcapsrv.pbl	w_find
pfcapsrv.pbl	w_logon
pfcapsrv.pbl	w_message
pfcapsrv.pbl	w_pagesetup
pfcapsrv.pbl	w_print
pfcapsrv.pbl	w_replace
pfcapsrv.pbl	w_selection
pfcapsrv.pbl	w_splash
pfcdwsrv.pbl	n_cst_dssrv
pfcdwsrv.pbl	n_cst_dssrv_multitable
pfcdwsrv.pbl	n_cst_dssrv_multitableattrib
pfcdwsrv.pbl	n_cst_dwobjectattrib
pfcdwsrv.pbl	n_cst_dwsrv
pfcdwsrv.pbl	n_cst_dwsrv_dropdownsearch
pfcdwsrv.pbl	n_cst_dwsrv_dropdownsearchattrib
pfcdwsrv.pbl	n_cst_dwsrv_filter
pfcdwsrv.pbl	n_cst_dwsrv_find
pfcdwsrv.pbl	n_cst_dwsrv_linkage
pfcdwsrv.pbl	n_cst_dwsrv_multitable
pfcdwsrv.pbl	n_cst_dwsrv_multitableattrib
pfcdwsrv.pbl	n_cst_dwsrv_querymodeattrib
pfcdwsrv.pbl	n_cst_dwsrv_reqcolumn
pfcdwsrv.pbl	n_cst_dwsrv_resizeattrib
pfcdwsrv.pbl	n_cst_dwsrv_rowmanager
pfcdwsrv.pbl	n_cst_dwsrv_rowselection
pfcdwsrv.pbl	n_cst_dwsrv_sort
pfcdwsrv.pbl	n_cst_filterattrib
pfcdwsrv.pbl	n_cst_linkageattrib
pfcdwsrv.pbl	n_cst_restorerowattrib
pfcdwsrv.pbl	n_cst_sortattrib
pfcdwsrv.pbl	s_svalue
pfcdwsrv.pbl	w_filterextended
pfcdwsrv.pbl	w_filtersimple
pfcdwsrv.pbl	w_restorerow
pfcdwsrv.pbl	w_sortdragdrop
pfcdwsrv.pbl	w_sortmulti
pfcdwsrv.pbl	w_sortsingle
pfcmain.pbl	m_dw
pfcmain.pbl	m_edit

pfcmain.pbl	m_lvs
pfcmain.pbl	m_tvs
pfcmain.pbl	m_view
pfcmain.pbl	n_base
pfcmain.pbl	n_cst_baseattrib
pfcmain.pbl	n_cst_calculatorattrib
pfcmain.pbl	n_cst_calendarattrib
pfcmain.pbl	n_cst_tvattrib
pfcmain.pbl	n_ds
pfcmain.pbl	n_msg
pfcmain.pbl	n_tr
pfcmain.pbl	u_base
pfcmain.pbl	u_calculator
pfcmain.pbl	u_calendar
pfcmain.pbl	u_cb
pfcmain.pbl	u_cbx
pfcmain.pbl	u_ddlb
pfcmain.pbl	u_ddplb
pfcmain.pbl	u_dw
pfcmain.pbl	u_em
pfcmain.pbl	u_gb
pfcmain.pbl	u_lb
pfcmain.pbl	u_lv
pfcmain.pbl	u_lvs
pfcmain.pbl	u_mle
pfcmain.pbl	u_p
pfcmain.pbl	u_pb
pfcmain.pbl	u_plb
pfcmain.pbl	u_progressbar
pfcmain.pbl	u_rb
pfcmain.pbl	u_sle
pfcmain.pbl	u_st
pfcmain.pbl	u_st_splitbar
pfcmain.pbl	u_tab
pfcmain.pbl	u_tabpg
pfcmain.pbl	u_tv
pfcmain.pbl	u_tvs
pfcmain.pbl	w_child
pfcmain.pbl	w_frame
pfcmain.pbl	w_main
pfcmain.pbl	w_master
pfcmain.pbl	w_popup
pfcmain.pbl	w_response

pfcmain.pbl	w_sheet
pfcwnsrv.pbl	m_master
pfcwnsrv.pbl	n_cst_menu
pfcwnsrv.pbl	n_cst_winsrv
pfcwnsrv.pbl	n_cst_winsrv_preference
pfcwnsrv.pbl	n_cst_winsrv_sheetmanager
pfcwnsrv.pbl	n_cst_winsrv_sheetmanagerattrib
pfewnsrv.pbl	m_frame

Window Objects



w_about

[Ancestor](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Ancestry

pfc_w_response (w_response) --> pfc_w_about (w_about)

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

w_about

[Ancestor](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Event Name	Supported	Limitations	Notes
Open	Yes		
pfc_cancel	Yes		
pfc_default	Yes		

w_about

[Ancestor](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Instance Variable Name	Supported
inv_aboutattrib	Yes

w_about

[Ancestor](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



cb_ok CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	Yes		

w_child

[Ancestor](#)



Description

Ancestor for all PFC child windows. Use this window as the ancestor for all of your application's child windows.

Ancestry

pfc_w_master (w_master) --> pfc_w_child (w_child)

Library

PFCMAIN.PBL
PFEMAIN.PBL

w_filterextended

[Ancestor](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Ancestry

pfc_w_response (w_response) --> pfc_w_filterextended (w_filterextended)

Library

PFCDWSRV.PBL
PFEDWSRV.PBL

w_filterextended

[Ancestor](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Event Name	Supported	Limitations	Notes
Close	Yes		
Open	Yes	Do not support array of objects.	
pfc_cancel	Yes		
pfc_default	Yes		
pfc_verify	Yes		

w_filterextended

[Ancestor](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Instance Variable Name	Supported
is_currentcolumn	Yes
inv_filterattrib	Yes
inv_return	Yes

w_filterextended

[Ancestor](#) | [Events](#) | [Instance Variables](#) | Sub Controls



cb_cancel CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	Yes		

cb_dlghelp CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	No	The Help button becomes functionless.	Unsupported function: ShowHelp. Comment entire event script.

cb_ok CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	Yes		

cb_verify CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	Yes		

tab_1 Tab:

Event Name	Supported	Limitations	Notes
SelectionChanged	No	Unable to populate the DW under Values Tab for the selected column under Columns Tab.	Script in this event dynamically creates DW object using Create, which is unsupported.

tab_1.tabpg_columns.dw_columns DataWindow (inherited from [u_dw](#)):

Event Name	Supported	Limitations	Notes
Constructor	Yes		

DoubleClicked	Yes		
---------------	-----	--	--

tab_1.tabpg_functions.dw_function DataWindow (inherited from [u_dw](#)):

Event Name	Supported	Limitations	Notes
Constructor	Yes		
DoubleClicked	Yes	Only able to append to mle_filter when a funtion in dw_function is double clicked.	
RowFocusChanged	Yes		

tab_1.tabpg_functions.dw_functioncategory DataWindow (inherited from [u_dw](#)):

Event Name	Supported	Limitations	Notes
Constructor	Yes		
RowFocusChanged	Yes		

tab_1.tabpg_operators.lb_1 ListBox (inherited from [u_lb](#)):

Event Name	Supported	Limitations	Notes
DoubleClicked	Yes		

tab_1.tabpg_values.dw_values DataWindow (inherited from [u_dw](#)):

Event Name	Supported	Limitations	Notes
Constructor	Yes		
DoubleClicked	Yes		

w_filtersimple

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Ancestry

pfc_w_response (w_response) --> pfc_w_filtersimple (w_filtersimple)

Library

PFCDWSRV.PBL
PFEDWSRV.PBL

w_filtersimple

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



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Function Name	Supported	Limitations	Notes
of_BuildFilterString	Yes		
of_GetValues	No		Comment entire function script.

w_filtersimple

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Event Name	Supported	Limitations	Notes
Close	Yes		
Open	Yes		
pfc_cancel	Yes		
pfc_default	Yes		
pfc_postopen	Yes		Comment SetRedraw.

w_filtersimple

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Instance Variable Name	Supported
is_prevchildcolumn	Yes
idwc_cols	Yes
idwc_values	Yes
inv_filterattrib	Yes
inv_return	Yes

w_filtersimple

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



cb_add CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	Yes		

cb_cancel CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	Yes		

cb_delete CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	Yes		

cb_dlghelp CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	No	The Help button becomes functionless.	Unsupported function: ShowHelp. Comment entire event script.

cb_ok CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	Yes		

dw_filter DataWindow (inherited from [u_dw](#)):

Event Name	Supported	Limitations	Notes
Constructor	Yes	Unable to show the hand indicator on the current row in the DW.	SetRowFocusIndicator: unsupported DW function.
EditChanged	Yes		
ItemChanged	Yes		
ItemFocusChanged	Yes		
pfc_prermbmenu	Yes		

w_find

[Ancestor](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Ancestry

pfc_w_popup (w_popup) --> pfc_w_find (w_find)

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

w_find

[Ancestor](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Event Name	Supported	Limitations	Notes
Open	Yes		

pfc_default	Yes		
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w_find

[Ancestor](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Instance Variable Name	Supported
inv_findattrib	Yes

w_find

[Ancestor](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



cb_cancel CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	Yes		

cb_dlghelp CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	No	The Help button becomes functionless.	Unsupported function: ShowHelp. Comment entire event script.

cb_findnext CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	Yes		

w_frame

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Description

Ancestor frame window for all MDI applications. Use this window or a descendant as the frame window for all MDI applications that use PFC.

Ancestry

pfc_w_master (w_master) --> pfc_w_frame (w_frame)

Library

PFCMAIN.PBL
PFEMAIN.PBL

w_frame

Function Name	Supported	Limitations	Notes
of_SetSheetManager	Yes		
of_SetStatusBar	No		Comment entire function script. Return 0 (No action taken).

w_frame

Event Name	Supported	Limitations	Notes
Activate	Yes		
Close	Yes		
Hide	No		Comment entire event script.
Move	No		Comment entire event script.
pfc_Cascade	Yes		
pfc_Layer	Yes		
pfc_MicroHelp	No		Comment entire event script.
pfc_MinimizeAll	Yes		
pfc_PostOpen	No		Comment entire event script.
pfc_PreToolbar	No		Comment entire event script.
pfc_TileHorizontal	Yes		
pfc_TileVertical	Yes		
pfc_Toolbars	No		Comment entire event script.
pfc_UndoArrange	Yes		
Resize	No		Comment entire event script.
Show	No		Comment entire event script.

w_frame

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Instance Variable Name	Supported
inv_sheetmanager	Yes
inv_statusbar	No

w_logon

[Ancestor](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Ancestry

pfc_w_response (w_response) --> pfc_w_logon (w_logon)

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

w_logon

[Ancestor](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Event Name	Supported	Limitations	Notes
Close	Yes		
Open	Yes		
pfc_cancel	Yes		
pfc_default	Yes		

w_logon

[Ancestor](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Instance Variable Name	Supported
inv_logonattrib	Yes
ii_logonattempts	Yes

w_logon

[Ancestor](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



cb_cancel CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	Yes		

cb_ok CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes

Event Name	Supported	Limitations	Notes
Clicked	Yes		

sle_password SingleLineEdit (inherited from [u_sle](#)):

Event Name	Supported	Limitations	Notes
Constructor	Yes		

sle_userid SingleLineEdit (inherited from [u_sle](#)):

Event Name	Supported	Limitations	Notes
Constructor	Yes		

w_main

[Ancestor](#)



Description

Ancestor main window for all SDI applications. Use w_main as the ancestor window for all single document interface (SDI) applications.

Ancestry

pfc_w_master (w_master) --> pfc_w_main (w_main)

Library

PFCMAIN.PBL
PFEMAIN.PBL

w_master

[Functions](#) | [Events](#) | [Instance Variables](#)



Description

w_master is the ancestor for all PFC windows. When writing a PFC-based application, all windows must descend from w_master. w_master is the ancestor of all PFC windows. When you add instance variables, events, and functions to w_master, they are immediately available in all PFC windows.

Descendants

[w_child](#)
[w_frame](#)
[w_main](#)
[w_popup](#)
[w_response](#)
[w_sheet](#)

Library

PFCWNSRV.PBL
PFEWNSRV.PBL

w_master

Function Name	Supported	Limitations	Notes
of_AcceptText	Yes		
of_GetCloseStatus	Yes		
of_GetDWType	Yes		
of_GetInfo	Yes		
of_GetSaveStatus	Yes		
of_GetUpdateObjects	Yes		
of_IsAlwaysValidate	Yes		
of_IsUpdateable	Yes		
of_MessageBox	Yes		
of_PostUpdate	Yes		
of_SetAlwaysValidate	Yes		
of_SetBase	Yes		
of_SetDBErrorMsg	Yes		
of_SetLogicalUnitOfWork	Yes		
of_SetPreference	Yes		
of_SetResize	Yes		
of_SetUpdateable	Yes		
of_SetUpdateObjects	Yes		
of_SetUpdateRequestor	Yes		
of_Update	Yes		
of_UpdateChecks	Yes		
of_UpdatePrep	Yes		
of_UpdatesPending	Yes		
of_Validation	Yes		

w_master

Event Name	Supported	Limitations	Notes
Activate	Yes		
Close	Yes		
CloseQuery	Yes		
Move	No		Comment entire event script.
Open	Yes		

pfc_AcceptText	Yes		
pfc_BeginTran	Yes		
pfc_Close	Yes		
pfc_ControlGotFocus	Yes		
pfc_DBError	Yes		
pfc_Descendant	Yes		
pfc_EndTran	Yes		
pfc_Help	No		Comment entire event script.
pfc_MessageRouter	Yes		
pfc_MicroHelp	Yes		
pfc_MRUClicked	Yes		
pfc_MRUProcess	Yes		
pfc_MRURestore	Yes		
pfc_MRUSave	Yes		
pfc_New	Yes		
pfc_Open	Yes		
pfc_PageSetup	Yes		
pfc_PostOpen	Yes		
pfc_PostUpdate	Yes		
pfc_PreClose	Yes		
pfc_PreMRUSave	Yes		
pfc_PreOpen	Yes		
pfc_PreUpdate	Yes		
pfc_Print	Yes		
pfc_PrintImmediate	Yes		
pfc_Save	Yes		
pfc_SaveAs	Yes		
pfc_SaveObjects	Yes		
pfc_Update	Yes		
pfc_UpdateObjects	Yes		
pfc_UpdatePrep	Yes		
pfc_UpdatesPending	Yes		
pfc_UpdatesPendingRef	Yes		
pfc_Validation	Yes		
Resize	Yes		

w_master

[Functions](#) | [Events](#) | Instance Variables

Instance Variable Name	Supported
CONTINUE_ACTION	Yes
FAILURE	Yes
ia_helptypeid	Yes
ib_alwaysvalidate	Yes
ib_closestatus	Yes
ib_disableclosequery	Yes
ib_isupdateable	Yes
ib_savestatus	Yes
idw_active	Yes
inv_base	Yes
inv_dberrorattrib	Yes
inv_luw	Yes
inv_preference	Yes
inv_resize	Yes
ipo_tempupdateobjects[]	Yes
ipo_pendingupdates[]	Yes
ipo_updateobjects[]	Yes
ipo_updaterequestor	Yes
NO_ACTION	Yes
PREVENT_ACTION	Yes
SUCCESS	Yes

w_message

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Ancestry

pfc_w_response (w_response) --> pfc_w_message (w_message)

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

w_message

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Function Name	Supported	Limitations	Notes
of_paintinitialwindow	Yes	Window layout may not be initialized properly.	
of_updatefontsize	No		Comment entire function

			script.
--	--	--	---------

w_message

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Event Name	Supported	Limitations	Notes
Open	Yes	Listview item may not display at proper location.	The event script populates the window (including a ListView) with appropriate information.
pfc_Cancel	Yes		
pfc_Close	Yes		
pfc_Default	Yes		
pfc_Print	Yes		
pfc_UserInput	Yes		
Timer	Yes		

w_message

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Instance Variable Name	Supported
ii_winwidth	Yes
ii_winheight	Yes
ii_winwidthdelta	Yes
ii_buttonclicked	Yes
ii_maxlines	Yes
ii_maxlinelen	Yes
ii_tabchars	Yes
ii_charwidth	Yes
ii_lineheight	Yes
inv_errorattrib	Yes

w_message

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



cb_1 CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes

Clicked	Yes		
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cb_2 CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	Yes		

cb_3 CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	Yes		

cb_print CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	Yes		

cb_userinput CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	Yes		

w_pagesetup

[Ancestor](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Ancestry

pfc_w_response (w_response) --> pfc_w_pagesetup (w_pagesetup)

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

w_pagesetup

[Ancestor](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Event Name	Supported	Limitations	Notes
Close	Yes		
Open	Yes		
pfc_cancel	Yes		
pfc_default	Yes		

w_pagesetup

Instance Variable Name	Supported
istr_pagesetup	Yes

w_pagesetup

cb_cancel CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	Yes		

cb_dlghelp CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	No	The Help button becomes functionless.	Unsupported function: ShowHelp. Comment entire event script.

cb_ok CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	Yes		

em_bottom EditMask (inherited from [u_em](#)):

Event Name	Supported	Limitations	Notes
Modified	Yes		

em_left EditMask (inherited from [u_em](#)):

Event Name	Supported	Limitations	Notes
Modified	Yes		

em_right EditMask (inherited from [u_em](#)):

Event Name	Supported	Limitations	Notes
Modified	Yes		

em_top EditMask (inherited from [u_em](#)):

Event Name	Supported	Limitations	Notes
Modified	Yes		

w_popup

[Ancestor](#)



Description

Ancestor for all PowerBuilder Foundation Class Library popup windows. Use w_popup as the ancestor window for all popup windows.

Ancestry

pfc_w_master (w_master) --> pfc_w_popup (w_popup)

Library

PFCMAIN.PBL
PFEMAIN.PBL

w_print

[Ancestor](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Ancestry

pfc_w_response (w_response) --> pfc_w_print (w_print)

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

w_print

[Ancestor](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Event Name	Supported	Limitations	Notes
Close	Yes		
Open	Yes		
pfc_cancel	Yes		
pfc_default	Yes		
pfc_printer	No		Comment entire event script.

w_print

[Ancestor](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Instance Variable Name	Supported

il_minpage	Yes
il_maxpage	Yes
istr_printdlg	Yes

w_print

[Ancestor](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



cb_cancel CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	Yes		

cb_ok CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	Yes		

cb_printer CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	Yes		

cbx_collate CheckBox (inherited from [u_cbx](#)):

Event Name	Supported	Limitations	Notes
Clicked	Yes		

em_copies EditMask (inherited from [u_em](#)):

Event Name	Supported	Limitations	Notes
Constructor	Yes		

em_frompage EditMask (inherited from [u_em](#)):

Event Name	Supported	Limitations	Notes
Constructor	Yes		
KeyDown	Yes		

em_topage EditMask (inherited from [u_em](#)):

Event Name	Supported	Limitations	Notes

Constructor	Yes		
KeyDown	Yes		

rb_pages RadioButton (inherited from [u_rb](#)):

Event Name	Supported	Limitations	Notes
Clicked	Yes		

w_replace

[Ancestor](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Ancestry

pfc_w_popup (w_popup) --> pfc_w_replace (w_replace)

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

w_replace

[Ancestor](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Event Name	Supported	Limitations	Notes
Open	Yes		
pfc_default	Yes		
pfc_findnext	Yes		
pfc_replace	Yes		
pfc_replaceall	Yes		

w_replace

[Ancestor](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Instance Variable Name	Supported
inv_findattrib	Yes

w_replace

[Ancestor](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



cb_cancel CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes

Clicked	Yes		
---------	-----	--	--

cb_dlghelp CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	No	The Help button becomes functionless.	Unsupported function: ShowHelp. Comment entire event script.

cb_findnext CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	Yes		

cb_replace CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	Yes		

cb_replaceall CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	Yes		

w_response

[Ancestor](#) | [Events](#)



Description

Ancestor for all PFC response windows. Use w_response as the ancestor window for all response windows.

Ancestry

pfc_w_master (w_master) --> pfc_w_response (w_response)

Library

PFCMAIN.PBL
PFEMAIN.PBL

w_response

[Ancestor](#) | [Events](#)



Event Name	Supported	Limitations	Notes
pfc_apply	Yes		

pfc_cancel	Yes		
pfc_default	Yes		

w_restorerow

[Ancestor](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Ancestry

pfc_w_response (w_response) --> pfc_w_restorerow (w_restorerow)

Library

PFCDWSRV.PBL
PFEDWSRV.PBL

w_restorerow

[Ancestor](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Event Name	Supported	Limitations	Notes
Close	Yes		
Open	Yes		
pfc_cancel	Yes		
pfc_default	Yes		

w_restorerow

[Ancestor](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Instance Variable Name	Supported
ii_dwmaxwidth	Yes
ii_dwmaxheight	Yes
ii_dwminwidth	Yes
ii_dwminheight	Yes
inv_restorerowattrib	Yes
inv_return	Yes
idw_parm	Yes

w_restorerow

[Ancestor](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



cb_cancel CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
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Clicked	Yes		
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cb_dlghelp CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	No	The Help button becomes functionless.	Unsupported function: ShowHelp. Comment entire event script.

cb_invertselection CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	Yes		

cb_ok CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	Yes		

cb_selectall CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	Yes		

dw_delete DataWindow (inherited from [u_dw](#)):

Event Name	Supported	Limitations	Notes
Clicked	Yes		
Constructor	Yes		

w_selection

[Ancestor](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Ancestry

pfc_w_response (w_response) --> pfc_w_selection (w_selection)

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

w_selection

[Ancestor](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Event Name	Supported	Limitations	Notes
Close	Yes		
Open	Yes	Pass-in object can only be DW object. If DW syntax or a SQL select is passed, the window is unable to display data.	The event script initializes the window based on passed-in object.
pfc_cancel	Yes		
pfc_default	Yes		

w_selection

[Ancestor](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Instance Variable Name	Supported
ii_dwmaxwidth	Yes
ii_dwmaxheight	Yes
ii_dwminwidth	Yes
ii_dwminheight	Yes
inv_selectionattrib	Yes

w_selection

[Ancestor](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



cb_cancel CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	Yes		

cb_ok CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	Yes		

dw_1 DataWindow (inherited from [u_dw](#)):

Event Name	Supported	Limitations	Notes
Clicked	Yes		
Constructor	Yes		
DoubleClicked	Yes		

w_sheet

Description

Ancestor for all PowerBuilder Foundation Class Library sheet windows. Use this window as the ancestor for all of your application's sheet windows.

Ancestry

pfc_w_master (w_master) --> pfc_w_sheet (w_sheet)

Library

PFCMAIN.PBL
PFEMAIN.PBL

w_sheet

Event Name	Supported	Limitations	Notes
Activate	Yes		
pfc_ControlGotFocus	Yes		
pfc_MicroHelp	Yes		

w_sortdragdrop**Ancestry**

pfc_w_response (w_response) --> pfc_w_sortdragdrop (w_sortdragdrop)

Library

PFCDWSRV.PBL
PFEDWSRV.PBL

w_sortdragdrop

Function Name	Supported	Limitations	Notes
of_buildsortstring	Yes		

w_sortdragdrop

Event Name	Supported	Limitations	Notes
Close	Yes		

Open	Yes		
pfc_cancel	Yes		
pfc_default	Yes		
pfc_postopen	Yes		

w_sortdragdrop

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Instance Variable Name	Supported
il_availabilityrow	Yes
il_sortingrow	Yes
inv_sortattrib	Yes
inv_return	Yes

w_sortdragdrop

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



cb_cancel CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	Yes		

cb_dlghelp CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	No	The Help button becomes functionless.	Unsupported function: ShowHelp. Comment entire event script.

cb_ok CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	Yes		

dw_sortcolumns DataWindow (inherited from [u_dw](#)):

Event Name	Supported	Limitations	Notes
Clicked	No	Unable to Drag & Drop between DWs.	The event script starts drag.
Constructor	Yes		

DragDrop	No		The DragDrop event is not supported.
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dw_sorted DataWindow (inherited from [u_dw](#)):

Event Name	Supported	Limitations	Notes
Clicked	No	Unable to Drag & Drop between DWs.	The event script starts drag.
Constructor	Yes		
DragDrop	No		The DragDrop event is not supported.

w_sortmulti

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Ancestry

pfcdw_response (w_response) --> pfcdw_sortmulti (w_sortmulti)

Library

PFCDWSRV.PBL
PFEDWSRV.PBL

w_sortmulti

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Function Name	Supported	Limitations	Notes
of_buildsortstring	Yes		

w_sortmulti

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Event Name	Supported	Limitations	Notes
Close	Yes		
Open	Yes		
pfcdw_cancel	Yes		
pfcdw_default	Yes		
pfcdw_postopen	Yes		

w_sortmulti

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Instance Variable Name	Supported
idwc_cols	Yes
inv_sortattrib	Yes
inv_return	Yes

w_sortmulti

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#) | Sub Controls



cb_add CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	Yes		

cb_cancel CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	Yes		

cb_delete CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	Yes		

cb_dlghelp CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	No	The Help button becomes functionless.	Unsupported function: ShowHelp. Comment entire event script.

cb_insert CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	Yes		

cb_ok CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	Yes		

dw_sort DataWindow (inherited from [u_dw](#)):

Event Name	Supported	Limitations	Notes
Constructor	Yes		

w_sortsingle

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Ancestry

pfcdw_response (w_response) --> pfc_w_sortsingle (w_sortsingle)

Library

PFCDWSRV.PBL
PFEDWSRV.PBL

w_sortsingle

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Function Name	Supported	Limitations	Notes
of_buildsortstring	Yes		

w_sortsingle

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Event Name	Supported	Limitations	Notes
Close	Yes		
Open	Yes		
pfcdw_cancel	Yes		
pfcdw_default	Yes		
pfcdw_postopen	Yes		

w_sortsingle

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Instance Variable Name	Supported
NONE	Yes
ics_none	Yes
il_clickedrow	Yes
inv_sortattrib	Yes
inv_return	Yes

w_sortsingle

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#) | Sub Controls

cb_cancel CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	Yes		

cb_dlghelp CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	No	The Help button becomes functionless.	Unsup Comm

cb_ok CommandButton (inherited from [u_cb](#)):

Event Name	Supported	Limitations	Notes
Clicked	Yes		

w_splash

[Ancestor](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Ancestry

pfc_w_popup (w_popup) --> pfc_w_splash (w_splash)

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

w_splash

[Ancestor](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Event Name	Supported	Limitations	Notes
Open	Yes		
Timer	Yes		

w_splash

[Ancestor](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Instance Variable Name	Supported

inv_splashattrib	Yes
------------------	-----

w_splash

[Ancestor](#) | [Events](#) | [Instance Variables](#) | Sub Controls



There are no coded events for the sub controls of w_splash.

Menus



m_dw

[Functions](#) | [Instance Variables](#)



Description

Popup menu displayed when the user releases the right mouse button over a u_dw based DataWindow control.

Ancestry

pfc_m_dw (m_dw)

Library

PFCMAIN.PBL
PFEMAIN.PBL

m_dw

[Functions](#) | [Instance Variables](#)



Function Name	Supported	Limitations	Notes
of_SetParent	Yes		

m_dw

[Functions](#) | [Instance Variables](#)



Instance Variable Name	Supported
idw_parent	Yes

m_edit

[Functions](#) | [Instance Variables](#)



Description

Popup menu displayed when the user releases the right mouse button over certain PFC visual controls.

Ancestry

pfc_m_edit (m_edit)

Library

PFCMAIN.PBL
PFEMAIN.PBL

m_edit

Functions | [Instance Variables](#)



Function Name	Supported	Limitations	Notes
of_SetParent	Yes		

m_edit

[Functions](#) | Instance Variables



Instance Variable Name	Supported
idrg_current	Yes

m_frame

[Ancestor](#)



Description

The m_frame menu is a descendant of m_master with most items disabled and hidden. Use this menu as the frame menu for your application, modifying and adding menu items as necessary.

Ancestry

pfc_m_master (m_master) --> m_frame

Library

PFEWNSRV.PBL

m_lvs

[Functions](#) | [Instance Variables](#)



Description

Popup menu displayed when the user releases the right mouse button over a ListView based on u_lvs.

Ancestry

pfc_m_lvs (m_lvs)

Library

PFCMAIN.PBL
PFEMAIN.PBL

m_lvs

Functions | [Instance Variables](#)



Function Name	Supported	Limitations	Notes
of_SetParent	Yes		

m_lvs

[Functions](#) | Instance Variables



Instance Variable Name	Supported
ilv_parent	Yes

m_master

[Functions](#)

**Description**

Master menu for all PFC applications. Use this menu as the ancestor for your application's menus.

Ancestry

pfc_m_master (m_master)

Library

PFCWNSRV.PBL
PFEWNSRV.PBL

m_master

Functions



Function Name	Supported	Limitations	Notes
of_SendMessage	Yes		

m_tvs

[Functions](#) | [Instance Variables](#)

**Description**

Popup menu displayed when the user releases the right mouse button over a TreeView based on u_tvs.

Ancestry

pfc_m_tvs (m_tvs)

LibraryPFCMAIN.PBL
PFEMAIN.PBL**m_tvs**Functions | [Instance Variables](#)

Function Name	Supported	Limitations	Notes
of_SetParent	Yes		

m_tvs[Functions](#) | Instance Variables

Instance Variable Name	Supported
itv_parent	Yes

m_view[Functions](#) | [Instance Variables](#) | [Menu Items](#)**Ancestry**

pfc_m_view (m_view)

LibraryPFCMAIN.PBL
PFEMAIN.PBL**m_view**Functions | [Instance Variables](#) | [Menu Items](#)

Function Name	Supported	Limitations	Notes
of_SetParent	Yes		

m_view[Functions](#) | Instance Variables | [Menu Items](#)

Instance Variable Name	Supported

ilv_parent	Yes
------------	-----

m_view

[Functions](#) | [Instance Variables](#) | [Menu Items](#)



m_viewitem.m_arrangeicons.m_1 Menu:

Event Name	Supported	Limitations	Notes
Clicked	No		Comment entire event script.

m_viewitem.m_arrangeicons.m_10 Menu:

Event Name	Supported	Limitations	Notes
Clicked	No		Comment entire event script.

m_viewitem.m_arrangeicons.m_2 Menu:

Event Name	Supported	Limitations	Notes
Clicked	No		Comment entire event script.

m_viewitem.m_arrangeicons.m_3 Menu:

Event Name	Supported	Limitations	Notes
Clicked	No		Comment entire event script.

m_viewitem.m_arrangeicons.m_4 Menu:

Event Name	Supported	Limitations	Notes
Clicked	No		Comment entire event script.

m_viewitem.m_arrangeicons.m_5 Menu:

Event Name	Supported	Limitations	Notes
Clicked	No		Comment entire event script.

m_viewitem.m_arrangeicons.m_6 Menu:

--	--	--	--

Event Name	Supported	Limitations	Notes
Clicked	No		Comment entire event script.

m_viewitem.m_arrangeicons.m_7 Menu:

Event Name	Supported	Limitations	Notes
Clicked	No		Comment entire event script.

m_viewitem.m_arrangeicons.m_8 Menu:

Event Name	Supported	Limitations	Notes
Clicked	No		Comment entire event script.

m_viewitem.m_arrangeicons.m_9 Menu:

Event Name	Supported	Limitations	Notes
Clicked	No		Comment entire event script.

m_viewitem.m_arrangeicons.m_autoarrange Menu:

Event Name	Supported	Limitations	Notes
Clicked	Yes	The menu item can display checked/unchecked status, but is unable to automatically arrange ListView items.	

m_viewitem.m_viewdisplay Menu:

Event Name	Supported	Limitations	Notes
Clicked	Yes		

m_viewitem.m_viewdisplay.m_details Menu:

Event Name	Supported	Limitations	Notes
Clicked	Yes		

m_viewitem.m_viewdisplay.m_largeicon Menu:

Event Name	Supported	Limitations	Notes

Event Name	Supported	Limitations	Notes
Clicked	Yes		

m_viewitem.m_viewdisplay.m_list Menu:

Event Name	Supported	Limitations	Notes
Clicked	Yes		

m_viewitem.m_viewdisplay.m_smallicon Menu:

Event Name	Supported	Limitations	Notes
Clicked	Yes		

Global Structures and Structure Objects



n_cst_aboutattrib



Description

Structure object containing information displayed in w_about.

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

Properties

Field	Supported
is_application	Yes
is_copyright	Yes
is_logo	Yes
is_version	Yes

n_cst_baseattrib



Description

Ancestor of all structure objects. This object contains no properties. To define a global property or function for structure objects, define it in this object.

Library

PFCMAIN.PBL
PFEMAIN.PBL

Properties

No properties.

n_cst_calculatorattrib**Description**

Structure object containing information used by u_calculator.

Library

PFCMAIN.PBL
PFEMAIN.PBL

Properties

Field	Supported
ib_dropdown	Yes

n_cst_calendarattrib**Description**

Structure object containing information used by u_calendar.

Library

PFCMAIN.PBL
PFEMAIN.PBL

Properties

Field	Supported
ib_dropdown	Yes

n_cst_columnattrib**Description**

Structure object containing column information.

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

Properties

Field	Supported
is_colformat	Yes
is_coltype	Yes
is_columns	Yes

n_cst_dberrorattrib



Description

Structure object containing database error information.

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

Properties

Field	Supported
idwb_buffer	Yes
il_row	Yes
il_sqldbcode	Yes
ipo_inerror	Yes
is_errormsg	Yes
is_sqlerrtext	Yes
is_sqlsyntax	Yes

n_cst_dirattrib



Description

Structure object containing information used in n_cst_filesrv and its descendants.

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

Properties

Field	Supported
ib_archive	Yes
ib_drive	Yes
ib_hidden	Yes
ib_readonly	Yes
ib_subdirectory	Yes
ib_system	Yes
id_creationdate	Yes
id_lastaccessdate	Yes
id_lastwritedate	Yes
idb_filesize	Yes
is_altfilename	Yes

is_filename	Yes
it_creationtime	Yes
it_lastwritetime	Yes

n_cst_dssrv_multitableattrib



Description

Structure object containing information used to control multitable updates.

Library

PFCDWSRV.PBL
PFEDWSRV.PBL

Properties

Field	Supported
b_keyupdateinplace	Yes
i_whereoption	Yes
s_keycolumns[]	Yes
s_updatecolumns[]	Yes
s_updatetable	Yes

n_cst_dwcacheattrib



Description

Structure object containing information about cached data.

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

Properties

Field	Supported
a_args[]	Yes
ds_originalcontrol	Yes
dw_originalcontrol	Yes
ds_obj	Yes
tr_obj	Yes
po_originaldata[]	Yes
s_id	Yes
s_filename	Yes
s_method	Yes
s_originaldataobject	Yes

n_cst_dwobjectattrib



Description

Structure object containing information used in n_cst_dwcache, n_cst_dssrv, n_cst_dwsrv, and its descendants.

Library

PFCDWSRV.PBL
PFEDWSRV.PBL

Properties

Field	Supported
is_column	Yes
is_datatype	Yes
is_value	Yes

n_cst_dwsrv_dropdownsearchattrib



Description

Structure object containing column and text information for dropdown DataWindows.

Library

PFCDWSRV.PBL
PFEDWSRV.PBL

Properties

Field	Supported
dwc_object	Yes
s_columnname	Yes
s_editstyle	Yes

n_cst_dwsrv_multitableattrib



Description

Structure object containing information used to control multitable updates.

Library

PFCDWSRV.PBL
PFEDWSRV.PBL

Properties

Field	Supported

b_keyupdateinplace	Yes
i_whereoption	Yes
s_keycolumns[]	Yes
s_updatecolumns[]	Yes
s_updatetable	Yes

n_cst_dwsrv_querymodeattrib



Description

Structure object storing querymode information for DataWindow columns.

Library

PFCDSRV.PBL
PFEDDSRV.PBL

Properties

Field	Supported
b_state	Yes
s_col	Yes
s_protect	Yes

n_cst_dwsrv_resizeattrib



Description

Structure object containing information about registered columns and text objects.

Library

PFCDSRV.PBL
PFEDDSRV.PBL

Properties

Field	Supported
b_scale	Yes
b_movex	Yes
b_movey	Yes
b_scalewidth	Yes
b_scaleheight	Yes
i_movex	Yes
i_movey	Yes
i_scalewidth	Yes
i_scaleheight	Yes

r_x	Yes
r_y	Yes
r_width	Yes
r_height	Yes
s_control	Yes
s_typeof	Yes

n_cst_errorattrib



Description

Structure object containing information used in n_cst_error and w_message.

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

Properties

Field	Supported
ib_print	Yes
ib_userinput	Yes
idt_date	Yes
ie_buttonstyle	Yes
ie_icon	Yes
ii_buttonclicked	Yes
ii_default	Yes
ii_rc	Yes
ii_severity	Yes
ii_timeout	Yes
is_text	Yes
is_title	Yes
is_user	Yes
is_usertext	Yes

n_cst_filterattrib



Description

Structure object containing information used in n_cst_dwsrv_filter and Filter dialog boxes.

Library

PFCDWSRV.PBL
PFEDWSRV.PBL

Properties

Field	Supported
idw_dw	Yes
is_colnamedisplay[]	Yes
is_columns[]	Yes
is_dbnames[]	Yes
is_filter	Yes

n_cst_findattrib**Description**

Structure object containing information used in n_cst_dwsrv_find, u_rte, w_find, and w_replace.

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

Properties

Field	Supported
ib_directionenabled	Yes
ib_directionvisible	Yes
ib_lookenabled	Yes
ib_lookvisible	Yes
ib_matchcase	Yes
ib_matchcaseenabled	Yes
ib_matchcasevisible	Yes
ib_wholeword	Yes
ib_wholewordenabled	Yes
ib_wholewordvisible	Yes
ii_lookindex	Yes
ipo_requestor	Yes
is_direction	Yes
is_find	Yes
is_lookdata[]	Yes
is_lookdisplay[]	Yes
is_replacewith	Yes

n_cst_infoattrib

Description

Structure object containing information displayed by the DataWindow Properties dialog box.

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

Properties

Field	Supported
is_description	Yes
is_name	Yes

n_cst_itemattrib**Description**

Structure object containing information used in u_lb, u_plb, and u_tv.

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

Properties

Field	Supported
ii_index	Yes
is_itemtext	Yes

n_cst_linkageattrib**Description**

Structure object containing information used in n_cst_dwsrv_linkage.

Library

PFCDWSRV.PBL
PFEDWSRV.PBL

Properties

Field	Supported
is_detailcolarg[]	Yes
is_mastercolarg[]	Yes

n_cst_logonattrib**Description**

Structure object containing information used in n_cst_appmanager.

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

Properties

Field	Supported
ii_logonattempts	Yes
ii_rc	Yes
ipo_source	Yes
is_appname	Yes
is_logo	Yes
is_password	Yes
is_userid	Yes

n_cst_lvsvattrib



Description

Structure object containing information used by ListView services.

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

Properties

Field	Supported
ids_source	Yes
itr_obj	Yes
is_dataobject	Yes
is_keycolumns[]	Yes
is_labelcolumn	Yes
is_method	Yes
is_overlaycolumn	Yes
is_picturecolumn	Yes
is_statecolumn	Yes
is_xposcolumn	Yes
is_yposcolumn	Yes

n_cst_mruattrib



Description

Structure object containing information used by n_cst_mru.

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

Properties

Field	Supported
ii_itemcount	Yes
is_classname	Yes
is_id	Yes
is_menuitemkey	Yes
is_menuitemmhelp	Yes
is_menuitemname	Yes

n_cst_resizeattrib



Description

Structure object containing information for tracking objects eligible for resizing.

Library

PFCWNSRV.PBL
PFEWNSRV.PBL

Properties

Field	Supported
b_scale	Yes
b_movex	Yes
b_movey	Yes
b_scalewidth	Yes
b_scaleheight	Yes
wo_control	Yes
i_movex	Yes
i_movey	Yes
i_scalewidth	Yes
i_scaleheight	Yes
i_widthmin	Yes
i_heightmin	Yes
r_x	Yes
r_y	Yes
r_width	Yes
r_height	Yes

s_classname	Yes
s_typeof	Yes

n_cst_restorerowattrib



Description

Structure object containing information used by n_cst_dwsrv_rowmanager when restoring deleted rows.

Library

PFCDWSRV.PBL
PFEDWSRV.PBL

Properties

Field	Supported
idw_active	Yes
is_filter	Yes
is_sort	Yes

n_cst_returnattrib



Description

Structure object containing return code and associated text.

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

Properties

Field	Supported
ii_rc	Yes
is_rs	Yes

n_cst_selectionattrib



Description

Structure object containing information used in n_cst_selection and w_selection.

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

Properties

Field	Supported
ia_argument[20]	Yes
ia_returnval[]	Yes
ipo_data[]	Yes
is_columnreturn[]	Yes
is_dataobject	Yes
is_title	Yes
itr_object	Yes

n_cst_sortattrib



Description

Structure object containing information used in n_cst_dwsrv_sort and the Sort dialog boxes.

Library

PFCDWSRV.PBL
PFEDWSRV.PBL

Properties

Field	Supported
ib_usedisplay[]	Yes
is_colnamedisplay[]	Yes
is_origcolumns[]	Yes
is_origorder[]	Yes
is_sort	Yes
is_sortcolumns[]	Yes

n_cst_splashattrib



Description

Structure object containing information used in n_cst_appmanager and w_splash.

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

Properties

Field	Supported
ii_secondsvisible	Yes
is_application	Yes

is_copyright	Yes
is_logo	Yes
is_version	Yes

n_cst_sqlattrib



Description

Structure object containing information used in n_cst_sql.

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

Properties

Field	Supported
s_columns	Yes
s_group	Yes
s_having	Yes
s_order	Yes
s_tables	Yes
s_values	Yes
s_verb	Yes
s_where	Yes

n_cst_textstyleattrib



Description

Structure object used by u_rte-based RichTextEdit controls to access text style information.

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

Properties

Field	Supported
ib_bold	Yes
ib_italic	Yes
ib_strikeout	Yes
ib_subscript	Yes
ib_superscript	Yes
ib_underlined	Yes

n_cst_trregistrationattrib



Description

Structure object for tracking the Transaction object.

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

Properties

Field	Supported
b_used	Yes
tr_object	Yes

n_cst_tvattrib



Description

Structure object containing information used by tree views.

Library

PFCMAIN.PBL
PFEMAIN.PBL

Properties

Field	Supported
b_recursive	Yes
i_pictureindex	Yes
i_selectedpictureindex	Yes
i_statepictureindex	Yes
i_overlaypictureindex	Yes
ds_obj	Yes
tr_obj	Yes
s_datawindow	Yes
s_labelcolumn	Yes
s_retrieveargs	Yes
s_pictureindexcol	Yes
s_selectedpictureindexcol	Yes
s_statepictureindexcol	Yes
s_overlaypictureindexcol	Yes

n_cst_tvsvrattrib

Description

Structure object containing information used by n_cst_tvsvr_levelsource.

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

Properties

Field	Supported
ib_recursive	Yes
ii_deletestyle	Yes
ids_obj	Yes
itr_obj	Yes
is_dataobject	Yes
is_filtercols	Yes
is_keycolumns	Yes
is_labelcolumn	Yes
is_method	Yes
is_overlaycolumn	Yes
is_picturecolumn	Yes
is_retrieveargs	Yes
is_selectedcolumn	Yes
is_statecolumn	Yes

n_cst_winsrv_sheetmanagerattrib

Description

Structure object containing information on the previous state of active sheets.

Library

PFCWNSRV.PBL
PFEWNSRV.PBL

Properties

Field	Supported
w_obj	Yes
e_state	Yes
i_width	Yes
i_height	Yes
i_x	Yes
i_y	Yes

s_pagesetupattrib



Description

Global structure containing information used in n_cst_platform and w_pagesetup.

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

Properties

Field	Supported
b_disablemargins	Yes
b_disableorientation	Yes
b_disablepaper	Yes
i_minmarginleft	Yes
i_minmarginright	Yes
i_minmargintop	Yes
i_minmarginbottom	Yes
i_marginleft	Yes
i_marginright	Yes
i_margintop	Yes
i_marginbottom	Yes
i_papersize	Yes
i_papersource	Yes
b_portraitorientation	Yes
str_papersize[]	Yes
str_papersource[]	Yes
i_units	Yes
b_actiontaken	Yes

s_paperattrib



Description

Global structure containing information used in s_pagestupattrib.

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

Properties

Field	Supported
-------	-----------

i_val	Yes
s_type	Yes

s_printdlgattrib



Description

Structure object containing information used by n_cst_platform for printing.

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

Properties

Field	Supported
b_allpages	Yes
b_pagenums	Yes
b_selection	Yes
b_disablepagenums	Yes
b_disableselection	Yes
b_collate	Yes
l_copies	Yes
b_printtofile	Yes
b_disableprinttofile	Yes
b_hideprinttofile	Yes
l_frompage	Yes
l_topage	Yes
l_minpage	Yes
l_maxpage	Yes

s_svalue



Description

Global structure containing information used in n_cst_dwsrv_querymode.

Library

PFCDWSRV.PBL
PFEDWSRV.PBL

Properties

Field	Supported
s_value	Yes

Standard Visual Objects



u_cb

[Functions](#) | [Events](#)



Description

Command button visual user object. Use this visual object in windows instead of the standard PowerBuilder CommandButton. U_cb event scripts provide integration with PFC menus.

Ancestry

pfc_u_cb (u_cb)

Library

PFCMAIN.PBL
PFEMAIN.PBL

u_cb

[Functions](#) | [Events](#)



Function Name	Supported	Limitations	Notes
of_GetParentWindow	Yes		
of_MessageBox	Yes		

u_cb

[Functions](#) | [Events](#)



Event Name	Supported	Limitations	Notes
GetFocus	Yes		

u_cbx

[Functions](#) | [Events](#)



Description

CheckBox visual user object. Use this visual object in windows instead of the standard PowerBuilder CheckBox. U_cbx event scripts provide integration with PFC menus.

Ancestry

pfc_u_cbx (u_cbx)

Library

PFCMAIN.PBL
PFEMAIN.PBL

u_cbx

Functions | [Events](#)

APPEON

Function Name	Supported	Limitations	Notes
of_GetParentWindow	Yes		
of_MessageBox	Yes		

u_cbx

[Functions](#) | Events

APPEON

Event Name	Supported	Limitations	Notes
GetFocus	Yes		

u_ddlb

[Functions](#) | [Events](#) | [Instance Variables](#)

APPEON

Description

DropDownListBox visual user object ancestor. Use this visual object in windows instead of the standard PowerBuilder DropDownListBox.

Ancestry

pfc_u_ddlb (u_ddlb)

Library

PFCMAIN.PBL
PFEMAIN.PBL

u_ddlb

Functions | [Events](#) | [Instance Variables](#)

APPEON

Function Name	Supported	Limitations	Notes
of_GetParentWindow	Yes		
of_MessageBox	Yes		

u_ddlb

[Functions](#) | Events | [Instance Variables](#)

APPEON

Event Name	Supported	Limitations	Notes
CbnEditChange	Yes	Unable to dynamically locate DDLB item for text entered in the text box portion.	
ContextMenu	Yes	Unable to enable/disable context menu items as appropriate.	The event script pops up menu.
GetFocus	Yes		
pfc_Clear	Yes		
pfc_Copy	No		Comment entire event script.
pfc_Cut	No		Comment entire event script.
pfc_Paste	No		Comment entire event script.
pfc_PreRmbMenu	Yes		
pfc_SelectAll	Yes		
RButtonUp	Yes		

u_ddlb

[Functions](#) | [Events](#) | [Instance Variables](#)



Instance Variable Name	Supported
ib_autoselect	Yes
ib_rmbmenu	Yes
ib_search	Yes

u_ddplb

[Functions](#) | [Events](#) | [Instance Variables](#)



Description

DropDownPictureListBox user object ancestor. Use this visual object in windows instead of the standard PowerBuilder DropDownPictureListBox.

Ancestry

pfc_u_ddplb (u_ddplb)

Library

PFCMAIN.PBL
PFEMAIN.PBL

u_dw

Description

Ancestor for all DataWindow controls in applications written using PFC.

Ancestry

pfc_u_dw (u_dw)

Library

PFCMAIN.PBL
PFEMAIN.PBL

u_dw

Function Name	Supported	Limitations	Notes
of_AcceptText	Yes		
of_CheckRequired	Yes		
of_GetParentWindow	Yes		
of_GetUpdateable	Yes		
of_IsRoot	Yes		
of_IsSharedProperty	Yes		
of_IsUpdateable	Yes		
of_MessageBox	Yes		
of_PostUpdate	Yes		
of_Reset	Yes		
of_Retrieve	Yes		
of_SetBase	Yes		
of_SetDropDownCalculator	Yes		
of_SetDropDownCalendar	Yes		
of_SetDropDownSearch	Yes		
of_SetFilter	Yes		
of_SetFind	Yes		
of_SetLinkage	Yes		
of_SetMultiTable	Yes		
of_SetPrintPreview	Yes		
of_SetProperty	Yes		
of_SetQuerymode	Yes		
of_SetReport	Yes		
of_SetReqColumn	Yes		
of_SetResize	Yes		

of_SetRowManager	Yes		
of_SetRowSelect	Yes		
of_SetSharedProperty	Yes		
of_SetSort	Yes		
of_SetTransObject	Yes		
of_SetUpdateable	Yes		
of_SetUpdateRequestor	Yes		
of_Update	Yes		
of_UpdatePrep	Yes		
of_UpdatesPending	Yes		
of_Validation	Yes		

u_dw

[Functions](#) | [Events](#) | [Instance Variables](#)



Event Name	Supported	Limitations	Notes
Clicked	Yes		
DBError	No		Comment entire event script.
Destructor	Yes		
Dropdown	Yes		
GetFocus	Yes		
ItemChanged	Yes		
ItemError	Yes		
ItemFocusChanged	Yes		
LButtonDown	Yes		
LButtonUp	Yes		
pfc_AcceptText	Yes		
pfc_AddRow	Yes		
pfc_Clear	No		Comment entire event script.
pfc_Copy	No		Comment entire event script.
pfc_Cut	No		Comment entire event script.
pfc_DDCalculator	Yes		
pfc_DDCalendar	Yes		
pfc_Debug	Yes		
pfc_DeleteRow	Yes		
pfc_Descendant	Yes		

pfc_FilterDlg	Yes		
pfc_FindDlg	Yes		
pfc_FirstPage	Yes		
pfc_InsertRow	Yes		
pfc_LastPage	Yes		
pfc_NextPage	Yes		
pfc_Operators	Yes		
pfc_PageSetup	Yes		
pfc_PageSetupDlg	No		Comment entire event script.
pfc_Paste	No		Comment entire event script.
pfc_PopulateDDDW	Yes		
pfc_PostInsertRow	Yes		
pfc_PostUpdate	Yes		
pfc_PreDeleteRow	Yes		
pfc_PreFindDlg	Yes		
pfc_PreInsertRow	Yes		
pfc_PrePageSetupDlg	Yes		
pfc_PrePrintDlg	Yes		
pfc_PreProperties	Yes		
pfc_PreReplaceDlg	Yes		
pfc_PreRestoreRow	Yes		
pfc_PreRmbMenu	Yes		
pfc_PreUpdate	Yes		
pfc_PreviousPage	Yes		
pfc_Print	No		Comment entire event script.
pfc_PrintDlg	No		Comment entire event script.
pfc_PrintImmediate	No		Comment entire event script.
pfc_PrintPreview	Yes		
pfc_Properties	Yes		
pfc_ReplaceDlg	Yes		
pfc_ResetUpdate	Yes		
pfc_RestoreRow	Yes		
pfc_Retrieve	Yes		
pfc_RetrieveDDDW	Yes		
pfc_RowChanged	Yes		
pfc_RowValidation	Yes		

pfc_Ruler	Yes		
pfc_SelectAll	No		Comment entire event script.
pfc_SortDlg	Yes		
pfc_Undo	No		Comment entire event script.
pfc_Update	Yes		
pfc_UpdatePrep	Yes		
pfc_UpdatesPending	Yes		
pfc_Validation	Yes		
pfc_Values	Yes		
pfc_Zoom	Yes		
RButtonDown	Yes		
RButtonUp	Yes		
Resize	Yes		
RetrieveEnd	Yes		
RetrieveStart	Yes		
RowFocusChanged	Yes		
SQLPreview	No		Comment entire event script.

u_dw

[Functions](#) | [Events](#) | Instance Variables



Instance Variable Name	Supported
CONTINUE_ACTION	Yes
FAILURE	Yes
ib_isupdateable	Yes
ib_rmbfocuschange	Yes
ib_rmbmenu	Yes
nv_base	Yes
inv_dropdownsearch	Yes
inv_filter	Yes
inv_find	Yes
inv_linkage	Yes
inv_multitable	Yes
inv_printpreview	Yes
inv_property	Yes
inv_querymode	Yes

inv_report	Yes
inv_reqcolumn	Yes
inv_resize	Yes
inv_rowmanager	Yes
inv_rowselect	Yes
inv_sort	Yes
is_updatesallowed	Yes
itr_object	Yes
iuo_calculator	Yes
iuo_calendar	Yes
NO_ACTION	Yes
PREVENT_ACTION	Yes
snv_property	Yes
SUCCESS	Yes

u_em

[Functions](#) | [Events](#) | [Instance Variables](#)



Description

EditMask visual user object ancestor. Use this visual object in windows instead of the standard PowerBuilder EditMask.

Ancestry

pfc_u_em (u_em)

Library

PFCMAIN.PBL
PFEMAIN.PBL

u_em

[Functions](#) | [Events](#) | [Instance Variables](#)



Function Name	Supported	Limitations	Notes
of_GetParentWindow	Yes		
of_MessageBox	Yes		
of_SetDropDownCalculator	Yes		
of_SetDropDownCalendar	Yes		

u_em

[Functions](#) | [Events](#) | [Instance Variables](#)



Event Name	Supported	Limitations	Notes
ContextMenu	Yes	Unable to enable/disable context menu items as appropriate.	The event script pops up menu.
Destructor	Yes		
GetFocus	Yes		
pfc_Clear	Yes		
pfc_Copy	No		Comment entire event script.
pfc_Cut	No		Comment entire event script.
pfc_DDCalculator	Yes		
pfc_DDCalendar	Yes		
pfc_Paste	No		Comment entire event script.
pfc_PreRmbMenu	Yes		
pfc_SelectAll	Yes		
pfc_Undo	No		Comment entire event script.
RButtonUp	Yes		

u_em

[Functions](#) | [Events](#) | Instance Variables



Instance Variable Name	Supported
ib_autoselect	Yes
ib_rmbmenu	Yes
iuo_calculator	Yes
iuo_calendar	Yes

u_gb



Description

GroupBox visual user object ancestor. Use this visual object in windows instead of the standard PowerBuilder GroupBox.

Ancestry

pfc_u_gb (u_gb)

Library

PFCMAIN.PBL
PFEMAIN.PBL

u_lb

[Functions](#) | [Events](#)



Description

ListBox visual user object ancestor. Use this visual user object in windows instead of the standard PowerBuilder ListBox.

Ancestry

pfc_u_lb (u_lb)

Library

PFCMAIN.PBL
PFEMAIN.PBL

u_lb

[Functions](#) | [Events](#)



Function Name	Supported	Limitations	Notes
of_GetParentWindow	Yes		
of_GetSelected	Yes		
of_MessageBox	Yes		

u_lb

[Functions](#) | [Events](#)



Event Name	Supported	Limitations	Notes
GetFocus	Yes		
pfc_InvertSelection	Yes		
pfc_SelectAll	Yes		

u_lv

[Functions](#) | [Events](#) | [Instance Variables](#)



Description

ListView visual user object ancestor. Use this visual user object in windows instead of the standard PowerBuilder ListView.

Ancestry

pfc_u_lv (u_lv)

Library

PFCMAIN.PBL
PFEMAIN.PBL

u_ivFunctions | [Events](#) | [Instance Variables](#)

Function Name	Supported	Limitations	Notes
of_AddColumn	Yes		
of_AddColumns	Yes		
of_AddItem	Yes		
of_CreateKey	No		Comment entire function script.
of_DeleteColumn	Yes		
of_DeleteColumns	Yes		
of_DeleteItem	Yes		
of_FormatData	Yes		
of_GetCurrentSort	Yes		
of_GetDataRow	Yes		
of_GetDataSource	Yes		
of_GetItemForRow	Yes		
of_GetParentWindow	Yes		
of_MessageBox	Yes		
of_Populate	Yes		
of_Refresh	Yes		
of_RefreshItem	Yes		
of_RefreshItemForRow	Yes		
of_ResetUpdate	Yes		
of_SetAttributes	Yes	Unable to set the OverlayPictureIndex, ItemX and ItemY property of ListView items.	The event script sets the attributes of a ListView item using data from the data source.
of_SetDataSource	Yes		
of_Update	Yes		

u_ivFunctions | [Events](#) | [Instance Variables](#)

Event Name	Supported	Limitations	Notes
ColumnClick	Yes		
ContextMenu	Yes	The Auto Arrange Icons menu item is functionless in B/S.	The event script pops up menu.

Destructor	Yes		
EndLabelEdit	No		Comment entire event script.
GetFocus	Yes		
Rbuttonup	Yes		
RightClicked	Yes		
pfc_prermbmenu	Yes		

u_lv

[Functions](#) | [Events](#) | [Instance Variables](#)



Instance Variable Name	Supported
ib_rmbmenu	Yes
ii_CurrentSortCol	Yes
il_LastHandle	Yes
il_RightClicked	Yes
is_LabelColumn	Yes
is_PictureColumn	Yes
is_StateColumn	Yes
is_OverlayColumn	Yes
is_XPosColumn	Yes
is_YPosColumn	Yes
is_pfckeydelimiter	Yes
is_Columns[]	Yes
is_ColFormat[]	Yes
is_ColType[]	Yes
ie_CurrentSort	Yes
ids_source	Yes
im_view	Yes

u_lvs

[Functions](#) | [Events](#) | [Instance Variables](#)



Description

Service-based ListView visual user object ancestor. This object uses DataStores to display data in a ListView. Use this visual user object in windows instead of the standard PowerBuilder ListView control.

U_lvs replaces [u_lv](#): u_lv is the ListView control supported in earlier PFC versions. Although PFC still provides u_lv, it's best to use u_lvs.

Ancestry

pfc_u_lvs (u_lvs)

LibraryPFCMAIN.PBL
PFEMAIN.PBL**u_lvs**Functions | [Events](#) | [Instance Variables](#)

Function Name	Supported	Limitations	Notes
of_AcceptText	Yes		
of_AddItem	Yes		
of_CanUndo	Yes		
of_GetColumnInfo	Yes		
of_GetInfo	Yes		
of_GetObjects	Yes		
of_GetParentWindow	Yes		
of_GetRow	Yes		
of_GetUpdateRequestor	Yes		
of_InsertItem	Yes		
of_IsAlwaysValidate	Yes		
of_IsRMBMenu	Yes		
of_IsUpdateable	Yes		
of_MessageBox	Yes		
of_Populate	Yes		
of_PostUpdate	Yes		
of_Reset	Yes		
of_Retrieve	Yes		
of_SetAlwaysValidate	Yes		
of_SetBase	Yes		
of_SetDataSource	Yes		
of_SetLogicalUnitOfWork	Yes		
of_SetRMBMenu	Yes		
of_SetSort	Yes		
of_SetUpdateable	Yes		
of_SetUpdateRequestor	Yes		
of_Update	Yes		
of_UpdatePrep	Yes		
of_UpdatesPending	Yes		
of_Validation	Yes		

u_lvs[Functions](#) | [Events](#) | [Instance Variables](#)

Event Name	Supported	Limitations	Notes
ColumnClick	Yes		
ContextMenu	Yes	The Auto Arrange Icons menu item is functionless in B/S.	The event script pops up menu.
Destructor	Yes		
EndLabelEdit	No		Comment entire event script.
GetFocus	Yes		
KeyDown	Yes		
pfc_AcceptText	Yes		
pfc_AddAll	Yes	Unable to sort ListView items.	The event script adds all the rows from data source to the ListView.
pfc_AddItem	Yes		
pfc_DeleteItem	Yes		
pfc_InsertItem	Yes		
pfc_InvertSelection	Yes		
pfc_NewItem	Yes		
pfc_Populate	Yes		
pfc_PostUpdate	Yes		
pfc_PreDeleteItem	Yes		
pfc_PreInsertItem	Yes		
pfc_PreRefreshItem	Yes		
pfc_PreRmbMenu	Yes		
pfc_Properties	Yes		
pfc_Refresh	Yes		
pfc_RefreshItem	Yes		
pfc_RenameItem	Yes		
pfc_Retrieve	Yes		
pfc_SelectAll	Yes		
pfc_SetItemAttributes	Yes		
pfc_Undo	Yes		
pfc_Update	Yes		
pfc_UpdatePrep	Yes		
pfc_UpdatesPending	Yes		
pfc_Validation	Yes		

RButtonUp	Yes		
RightClicked	Yes		
Sort	Yes		

u_lvs

[Functions](#) | [Events](#) | [Instance Variables](#)



Instance Variable Name	Supported
CONTINUE_ACTION	Yes
ib_alwaysvalidate	Yes
ib_isupdateable	Yes
ib_rmbmenu	Yes
il_rightclicked	Yes
INSERT_AFTER	Yes
INSERT_BEFORE	Yes
INSERT_FIRST	Yes
INSERT_LAST	Yes
inv_base	Yes
inv_datasource	Yes
inv_luw	Yes
inv_sort	Yes
ipo_pendingupdates[]	Yes
ipo_updaterequestor	Yes
NO_ACTION	Yes
PREVENT_ACTION	Yes

u_mle

[Functions](#) | [Events](#) | [Instance Variables](#)



Description

MultiLineEdit visual user object ancestor. Use this visual object in windows instead of the standard PowerBuilder MultiLineEdit.

Ancestry

pfc_u_mle (u_mle)

Library

PFCMAIN.PBL
PFEMAIN.PBL

u_mle

[Functions](#) | [Events](#) | [Instance Variables](#)

Function Name	Supported	Limitations	Notes
of_GetParentWindow	Yes		
of_MessageBox	Yes		

u_mle

[Functions](#) | [Events](#) | [Instance Variables](#)

Event Name	Supported	Limitations	Notes
ContextMenu	Yes	Unable to enable/disable context menu items as appropriate.	The event script pops up menu.
GetFocus	Yes		
pfc_Clear	Yes		
pfc_Copy	No		Comment Entire event script.
pfc_Cut	No		Comment Entire event script.
pfc_Paste	No		Comment Entire event script.
pfc_PreRmbMenu	Yes		
pfc_SelectAll	Yes		
pfc_Undo	No		Comment Entire event script.
RButtonUp	Yes		

u_mle

[Functions](#) | [Events](#) | [Instance Variables](#)

Instance Variable Name	Supported
ib_autoselect	Yes
ib_rmbmenu	Yes

u_p

[Functions](#) | [Events](#)

Description

Picture visual user object ancestor. Use this visual object in windows instead of the standard PowerBuilder Picture control.

Ancestry

pfc_u_p (u_p)

LibraryPFCMAIN.PBL
PFEMAIN.PBL**u_p**Functions | [Events](#)

Function Name	Supported	Limitations	Notes
of_GetParentWindow	Yes		
of_MessageBox	Yes		

u_p[Functions](#) | Events

Event Name	Supported	Limitations	Notes
GetFocus	Yes		

u_pb[Functions](#) | [Events](#)**Description**

PictureButton visual user object ancestor. Use this visual object in windows instead of the standard PowerBuilder PictureButton control.

Ancestry

pfc_u_pb (u_pb)

LibraryPFCMAIN.PBL
PFEMAIN.PBL**u_pb**Functions | [Events](#)

Function Name	Supported	Limitations	Notes
of_GetParentWindow	Yes		
of_MessageBox	Yes		

u_pb

Event Name	Supported	Limitations	Notes
GetFocus	Yes		

u_plb

Description

PictureListBox user object ancestor. Use this visual object in windows instead of the standard PowerBuilder PictureListBox.

Ancestry

pfc_u_plb (u_plb)

Library

PFCMAIN.PBL
PFEMAIN.PBL

u_plb

Function Name	Supported	Limitations	Notes
of_GetParentWindow	Yes		
of_GetSelected	Yes		
of_MessageBox	Yes		

u_plb

Event Name	Supported	Limitations	Notes
GetFocus	Yes		
pfc_InvertSelection	Yes		
pfc_SelectAll	Yes		

u_rb

Description

RadioButton visual user object ancestor. Use this visual object in windows instead of the standard PowerBuilder RadioButton control.

Ancestry

pfc_u_rb (u_rb)

LibraryPFCMAIN.PBL
PFEMAIN.PBL**u_rb**Functions | [Events](#)

Function Name	Supported	Limitations	Notes
of_GetParentWindow	Yes		
of_MessageBox	Yes		

u_rb[Functions](#) | Events

Event Name	Supported	Limitations	Notes
GetFocus	Yes		

u_sleFunctions | [Events](#) | [Instance Variables](#)**Description**

SingleLineEdit visual user object ancestor. Use this visual object in windows instead of the standard PowerBuilder SingleLineEdit control.

Ancestry

pfc_u_sle (u_sle)

LibraryPFCMAIN.PBL
PFEMAIN.PBL**u_sle**Functions | [Events](#) | [Instance Variables](#)

Function Name	Supported	Limitations	Notes
of_GetParentWindow	Yes		
of_MessageBox	Yes		

u_sle

Event Name	Supported	Limitations	Notes
ContextMenu	Yes	Unable to enable/disable context menu items as appropriate.	The event script pops up menu.
GetFocus	Yes		
pfc_Clear	Yes		
pfc_Copy	No		Comment entire event script.
pfc_Cut	No		Comment entire event script.
pfc_Paste	No		Comment entire event script.
pfc_PreRmbMenu	Yes		
pfc_SelectAll	Yes		
pfc_Undo	No		Comment entire event script.
RButtonUp	Yes		

u_sle

Instance Variable Name	Supported
ib_autoselect	Yes
ib_rmbmenu	Yes

u_st

Description

StaticText visual user object ancestor. Use this visual object in windows instead of the standard PowerBuilder StaticText control.

Ancestry

pfc_u_st (u_st)

Library

PFCMAIN.PBL
PFEMAIN.PBL

u_st

Function Name	Supported	Limitations	Notes
of_GetParentWindow	Yes		
of_MessageBox	Yes		

u_st

[Functions](#) | [Events](#)



Event Name	Supported	Limitations	Notes
GetFocus	Yes		

u_tab

[Functions](#) | [Events](#) | [Instance Variables](#)



Description

Tab control visual user object ancestor. Use descendants of this visual user object in the User Object painter instead of the visual standard tab user object.

Ancestry

pfc_u_tab (u_tab)

Library

PFCMAIN.PBL
PFEMAIN.PBL

u_tab

[Functions](#) | [Events](#) | [Instance Variables](#)



Function Name	Supported	Limitations	Notes
of_AcceptText	Yes		
of_GetInfo	Yes		
of_GetParentWindow	Yes		
of_GetUpdateObjects	Yes		
of_IsAlwaysValidate	Yes		
of_IsUpdateable	Yes		
of_MessageBox	Yes		
of_PostUpdate	Yes		
of_SetAlwaysValidate	Yes		
of_SetLogicalUnitOfWork	Yes		
of_SetResize	Yes		
of_SetUpdateable	Yes		

of_SetUpdateObjects	Yes		
of_SetUpdateRequestor	Yes		
of_Update	Yes		
of_UpdatePrep	Yes		
of_UpdatesPending	Yes		
of_Validation	Yes		

u_tab

[Functions](#) | [Events](#) | [Instance Variables](#)



Event Name	Supported	Limitations	Notes
pfk_AcceptText	Yes		
pfk_PostUpdate	Yes		
pfk_Update	Yes		
pfk_UpdatePrep	Yes		
pfk_UpdatesPending	Yes		
pfk_Validation	Yes		
Resize	Yes		

u_tab

[Functions](#) | [Events](#) | [Instance Variables](#)



Instance Variable Name	Supported
ib_alwaysvalidate	Yes
ib_isupdateable	Yes
inv_luw	Yes
inv_resize	Yes
ipo_pendingupdates[]	Yes
ipo_updateobjects[]	Yes
ipo_updaterequestor	Yes
NO_ACTION	Yes

u_tv

[Functions](#) | [Events](#) | [Instance Variables](#)



Description

TreeView visual user object ancestor. Use this visual user object in windows instead of the standard PowerBuilder TreeView.

Ancestry

pfc_u_tv (u_tv)

LibraryPFCMAIN.PBL
PFEMAIN.PBL**u_tv**Functions | [Events](#) | [Instance Variables](#)

Function Name	Supported	Limitations	Notes
of_BuildTree	No		Comment entire function script.
of_CreateKey	No		Comment entire function script.
of_DeleteItem	Yes	If associated DataStore has 2 or more than 2 rows of identical data, the function may not execute correctly.	
of_DiscardChildren	Yes		
of_FindFirstItemLevel	Yes		
of_FindItem	Yes		
of_GetArgs	Yes	If associated DataStore has 2 or more than 2 rows of identical data, the function may not execute correctly.	
of_GetDataRow	Yes	If associated DataStore has 2 or more than 2 rows of identical data, the function may not execute correctly.	
of_GetDataStore	Yes		
of_GetItemForData	Yes		
of_GetParentWindow	Yes		
of_InitialRetrieve	Yes		
of_InsertItem	Yes	Unable to sort item after it is inserted.	
of_MessageBox	Yes		
of_ParseArgs	Yes		
of_PopulateLevel	Yes		
of_PrintTree	No		Comment entire function script.
of_RefreshItem	Yes		
of_RefreshLevel	Yes		

of_ResetUpdate	Yes		
of_SearchChild	Yes		
of_SetDataSource	Yes		
of_SetItemAttributes	Yes	If associated DataStore has 2 or more than 2 rows of identical data, the function may not execute correctly.	
of_SetPictureColumn	Yes		
of_Update	Yes		

u_tv

[Functions](#) | [Events](#) | [Instance Variables](#)



Event Name	Supported	Limitations	Notes
BeginDrag	No		Comment entire event script.
Constructor	Yes		
Destructor	Yes		
DropDrop	No		Comment entire event script.
EndLabelEdit	No		Comment entire event script.
GetFocus	Yes		
ItemExpanding	Yes		
pfc_SearchCompare	Yes		

u_tv

[Functions](#) | [Events](#) | [Instance Variables](#)



Instance Variable Name	Supported
il_DragSource	Yes
il_DragTarget	Yes
il_queue[]	Yes
inv_ds[]	Yes
ids_Buffer	Yes
itr_obj	Yes
is_pfckeydelimiter	Yes
istr_ds[]	Yes

u_tv

[Functions](#) | [Events](#) | [Instance Variables](#)



Description

Service-based TreeView visual user object ancestor. This object uses DataStores to display data in a TreeView. Use this visual user object in windows instead of the standard PowerBuilder TreeView control.

U_tv replaces [u_tv](#): u_tv is the TreeView control supported in earlier PFC versions. Although PFC still provides u_tv, it's best to use u_tv.

Ancestry

pfc_u_tv (u_tv)

Library

PFCMAIN.PBL
PFEMAIN.PBL

u_tv

[Functions](#) | [Events](#) | [Instance Variables](#)



Function Name	Supported	Limitations	Notes
of_AcceptText	Yes		
of_AddItem	Yes		
of_CanUndo	Yes		
of_GetInfo	Yes		
of_GetNextLevel	Yes		
of_GetObjects	Yes		
of_GetParentWindow	Yes		
of_GetUpdateRequestor	Yes		
of_InsertItem	Yes		
of_IsAlwaysValidate	Yes		
of_IsRMBMenu	Yes		
of_IsUpdateable	Yes		
of_MessageBox	Yes		
of_Populate	Yes		
of_PostUpdate	Yes		
of_Reset	Yes		
of_Retrieve	Yes		
of_SetAlwaysValidate	Yes		
of_SetBase	Yes		
of_SetLevelSource	Yes		

of_SetLogicalUnitOfWork	Yes		
of_SetPrint	Yes		
of_SetRMBMenu	Yes		
of_SetUpdateable	Yes		
of_SetUpdateRequestor	Yes		
of_Update	Yes		
of_UpdatePrep	Yes		
of_UpdatesPending	Yes		
of_Validation	Yes		

u_tvs

[Functions](#) | [Events](#) | [Instance Variables](#)



Event Name	Supported	Limitations	Notes
BeginDrag	No		Comment entire event script.
Destructor	Yes		
DragDrop	No		Comment entire event script.
EndLabelEdit	No		Comment entire event script.
GetFocus	Yes		
KeyDown	Yes		
ItemExpanding	Yes		
pfc_AcceptText	Yes		
pfc_AddAll	Yes		
pfc_AddItem	Yes		
pfc_DeleteItem	Yes		
pfc_InsertItem	Yes	Unable to sort item after it is inserted.	The event script inserts a TreeView item.
pfc_NewItem	Yes		
pfc_Populate	Yes		
pfc_PostUpdate	Yes		
pfc_PreDeleteItem	Yes		
pfc_PreInsertItem	Yes		
pfc_PreRefreshItem	Yes		
pfc_PreRefreshLevel	Yes		
pfc_PreRmbMenu	Yes		
pfc_Properties	Yes		
pfc_RefreshItem	Yes		

pfc_RefreshLevel	Yes		
pfc_RenameItem	Yes		
pfc_Retrieve	Yes		
pfc_SearchCompare	Yes		
pfc_SetItemAttributes	Yes		
pfc_Undo	Yes		
pfc_Update	Yes		
pfc_UpdatePrep	Yes		
pfc_UpdatesPending	Yes		
pfc_Validation	Yes		
RightClicked	Yes		

u_tvs

[Functions](#) | [Events](#) | [Instance Variables](#)



Instance Variable Name	Supported
ib_alwaysvalidate	Yes
ib_isupdateable	Yes
ib_rmbmenu	Yes
il_dragsource	Yes
il_dragtarget	Yes
il_rightclicked	Yes
im_view	Yes
inv_base	Yes
inv_levelsource	Yes
inv_luw	Yes
inv_print	Yes
ipo_pendingupdates[]	Yes
ipo_updaterequestor	Yes

Custom Visual Objects



u_base

[Functions](#) | [Events](#) | [Instance Variables](#)



Description

Base object for custom visual user objects (such as u_calculator and

u_calendar). Use this object as the base object for custom visual user objects.

Ancestry

pfc_u_base (u_base)

Library

PFCMAIN.PBL

PFEMAIN.PBL

u_base

Functions | [Events](#) | [Instance Variables](#)



Function Name	Supported	Limitations	Notes
of_AcceptText	Yes		
of_GetInfo	Yes		
of_GetParentWindow	Yes		
of_GetUpdateObjects	Yes		
of_IsAlwaysValidate	Yes		
of_IsUpdateable	Yes		
of_MessageBox	Yes		
of_PostUpdate	Yes		
of_SetAlwaysValidate	Yes		
of_SetLogicalUnitOfWork	Yes		
of_SetResize	Yes		
of_SetUpdateable	Yes		
of_SetUpdateObjects	Yes		
of_SetUpdateRequestor	Yes		
of_Update	Yes		
of_UpdatePrep	Yes		
of_UpdatesPending	Yes		
of_Validation	Yes		

u_base

Functions | [Events](#) | [Instance Variables](#)



Event Name	Supported	Limitations	Notes
Destructor	Yes		
pfc_AcceptText	Yes		
pfc_PostUpdate	Yes		
pfc_Update	Yes		

pfc_UpdatePrep	Yes		
pfc_UpdatesPending	Yes		
pfc_Validation	Yes		
Resize	Yes		

u_base

[Functions](#) | [Events](#) | [Instance Variables](#)



Instance Variable Name	Supported
CONTINUE_ACTION	Yes
FAILURE	Yes
ib_alwaysvalidate	Yes
ib_isupdateable	Yes
inv_luw	Yes
inv_resize	Yes
ipo_pendingupdates[]	Yes
ipo_updateobjects[]	Yes
ipo_tempupdateobjects[]	Yes
ipo_updaterequestor	Yes
NO_ACTION	Yes
PREVENT_ACTION	Yes
SUCCESS	Yes

u_calculator

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Important Notes

In PFC, the u_calculator object is directly used as an opened dropdown user object with the EditMask or DataWindow control to display numeric or decimal values.

Because the current version of Apeon for PowerBuilder does not support opening user object at runtime, the u_calculator is implemented differently in ACF. Two new objects have been introduced in PFC_APPEON.PBL:

- **pfc_n_cst_calculator**
- **pfc_w_dropdowncalculator** - the Window object that holds a u_calculator custom visual user object.

By putting the u_calculator into a Window, the user object can be opened by opening the Window object, which is supported. In the ACF class library, u_calculator is not directly used, but is utilized by pfc_n_cst_calculator and pfc_w_dropdowncalculator that collectively replace the usage of u_calculator.

From the user perspective, there is no difference in using the u_calculator with EditMask or DataWindow. Start/stop the calculator in the same way as you do in PFC applications.

Ancestry

pfc_u_base (u_base) -> pfc_u_calculator (u_calculator)

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

u_calculator

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Function Name	Supported	Limitations	Notes
of_ButtonClicked	Yes		
of_DropDown	Yes		
of_GetInfo	Yes		
of_GetPropertyInfo	Yes		
of_GetRegisterable	Yes		
of_GetRegistered	Yes		
of_GetRegisteredStyle	Yes		
of_IsCloseOnClick	Yes		
of_IsDropDown	Yes		
of_IsInitialValue	Yes		
of_IsNumericType	Yes		
of_IsOperator	Yes		
of_IsRegistered	Yes		
of_PerformMath	Yes		
of_RedirectFocus	Yes		
of_Register	Yes		
of_Reset	Yes		
of_SetCloseOnClick	Yes		
of_SetDropDown	Yes		
of_SetFocusOnRequestor	Yes		
of_SetInitialValue	Yes		
of_SetRequestor	Yes		
of_SetValue	Yes		
of_SetValueOnRequestor	Yes		
of_UnRegister	Yes		

u_calculator

Event Name	Supported	Limitations	Notes
Constructor	Yes		
Destructor	Yes		
pfc_DropDown	Yes		

u_calculator

Instance Variable Name	Supported
DDLB	Yes
DDLB_WITHARROW	Yes
EMPTY	Yes
ib_closeonclick	Yes
ib_initialvalue	Yes
ib_validresetvalue	Yes
idbl_repeatvalue	Yes
idbl_value	Yes
idrg_requestor	Yes
idw_requestor	Yes
iem_requestor	Yes
ii_dwcolumnstyle[]	Yes
inv_calculatorattrib	Yes
inv_dropdown	Yes
is_curroperator	Yes
is_currvalue	Yes
is_dwcolumns[]	Yes
is_dwcolumnsexp[]	Yes
is_prevkeystroke	Yes
is_repeatoperator	Yes
NONE	Yes

u_calculator

dw_calculator DataWindow (inherited from [u_dw](#)):

--

Event Name	Supported	Limitations	Notes
ButtonClicked	Yes		
Constructor	Yes		
GetFocus	Yes		
Key	Yes		
LoseFocus	Yes		

u_calendar

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Important Notes

In PFC, the u_calendar object is directly used as an opened dropdown user object with the EditMask or DataWindow control to display date values.

Because the current version of Appeon for PowerBuilder does not support opening user object at runtime, the u_calendar is implemented differently in ACF. Two new objects have been introduced in PFC_APPEON.PBL:

- **pfc_n_cst_calendar**
- **pfc_w_dropdowncalendar** - the Window object that holds a u_calendar custom visual user object.

By putting the u_calendar into a Window, the user object can be opened by opening the Window object, which is supported. In the ACF class library, u_calendar is not directly used, but is utilized by pfc_n_cst_calendar and pfc_w_dropdowncalendar that collectively replace the usage of u_calculator.

From the user perspective, there is no difference in using u_calendar with EditMask or DataWindow. Start/stop the calendar in the same way as you do in PFC applications.

Ancestry

pfc_u_base (u_base) -> pfc_u_calendar (u_calendar)

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

u_calendar

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Function Name	Supported	Limitations	Notes
of_DrawMonth	Yes		
of_DropDown	Yes		
of_GetHoliday	Yes		
of_GetHolidayColor	Yes		
of_GetInfo	Yes		

of_GetMarkedDay	Yes		
of_GetMarkedDayColor	Yes		
of_GetPropertyInfo	Yes		
of_GetRegisterable	Yes		
of_GetRegistered	Yes		
of_GetRegisteredStyle	Yes		
of_GetSaturdayColor	Yes		
of_GetSundayColor	Yes		
of_IsAlwaysRedraw	Yes		
of_IsCloseOnClick	Yes		
of_IsCloseOnDClick	Yes		
of_IsDateType	Yes		
of_IsHolidayBold	Yes		
of_IsInitialValue	Yes		
of_IsMarkedDayBold	Yes		
of_IsRegistered	Yes		
of_IsSaturdayBold	Yes		
of_IsSundayBold	Yes		
of_RedirectFocus	Yes		
of_Register	Yes		
of_Reset	Yes		
of_SetAlwaysRedraw	Yes		
of_SetCloseOnClick	Yes		
of_SetCloseOnDClick	Yes		
of_SetDate	Yes		
of_SetDateFormat	Yes		
of_SetDropDown	Yes		
of_SetFocusOnRequestor	Yes		
of_SetHoliday	Yes		
of_SetHolidayBold	Yes		
of_SetHolidayColor	Yes		
of_SetInitialValue	Yes		
of_SetMarkedDay	Yes		
of_SetMarkedDayBold	Yes		
of_SetMarkedDayColor	Yes		
of_SetRequestor	Yes		
of_SetSaturdayBold	Yes		
of_SetSaturdayColor	Yes		
of_SetSundayBold	Yes		

of_SetSundayColor	Yes		
of_UnRegister	Yes		

u_calendar

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Event Name	Supported	Limitations	Notes
Constructor	Yes		
Destructor	Yes		
pfc_DropDown	Yes		

u_calendar

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Instance Variable Name	Supported
DDLB	Yes
DDLB_WITHARROW	Yes
ib_alwaysredraw	Yes
ib_closeonclick	Yes
ib_closeonclick	Yes
ib_holidaybold	Yes
ib_initialvalue	Yes
ib_markeddaybold	Yes
ib_saturdaybold	Yes
ib_sundaybold	Yes
id_date	Yes
id_holiday[]	Yes
id_markedday[]	Yes
id_prevdate	Yes
id_resetdate	Yes
idrg_requestor	Yes
idw_requestor	Yes
iem_requestor	Yes
ii_boldfontweight	Yes
ii_dwcolumnstyle[]	Yes
ii_normalfontweight	Yes
il_fontcolor	Yes
il_holidaycolor	Yes

il_markeddaycolor	Yes
il_saturdaycolor	Yes
il_sundaycolor	Yes
inv_calendarattrib	Yes
inv_datetime	Yes
inv_dropdown	Yes
is_dateformat	Yes
is_dwcolumns[]	Yes
is_dwcolumnsexp[]	Yes
is_prevcell	Yes
NONE	Yes

u_calendar

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



dw_cal DataWindow (inherited from [u_dw](#)):

Event Name	Supported	Limitations	Notes
ButtonClicked	Yes		
Clicked	Yes		
Constructor	Yes		
DoubleClicked	Yes		
GetFocus	Yes		
Key	Yes		
LoseFocus	Yes		
pfc_NextDay	Yes		
pfc_NextMonth	Yes		
pfc_NextWeek	Yes		
pfc_PrevDay	Yes		
pfc_PrevMonth	Yes		
pfc_PrevWeek	Yes		

u_progressbar

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Description

Progress bar control. Use u_progressbar to provide users with a visual representation of percentage complete for long-running operations.

Ancestry

pfc_u_base (u_base) -> pfc_u_progressbar (u_progressbar)

Library

PFCMAIN.PBL

PFEMAIN.PBL

u_progressbar[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)

Function Name	Supported	Limitations	Notes
of_GetBackColor	Yes		
of_GetCurrentText	Yes		
of_GetDisplayStyle	Yes		
of_GetFillColor	Yes		
of_GetFillStyle	Yes		
of_GetInfo	Yes		
of_GetMaximum	Yes		
of_GetMessageText	Yes		
of_GetMinimum	Yes		
of_GetPctComplete	Yes		
of_GetPosition	Yes		
of_GetStep	Yes		
of_GetTextColor	Yes		
of_Increment	Yes		
of_IsAutoReset	Yes		
of_Reset	Yes		
of_SetAutoReset	Yes		
of_SetBackColor	Yes		
of_SetDisplayStyle	Yes		
of_SetFillColor	Yes		
of_SetFillStyle	Yes		
of_SetFont	Yes		
of_SetFontBold	Yes		
of_SetFontCharSet	Yes		
of_SetFontFace	Yes		
of_SetFontFamily	Yes		
of_SetFontItalic	Yes		
of_SetFontPitch	Yes		
of_SetFontSize	Yes		
of_SetFontUnderline	Yes		
of_SetMaximum	Yes		

of_SetMessageText	Yes		
of_SetMinimum	Yes		
of_SetPosition	Yes		
of_SetStep	Yes		
of_SetTextColor	Yes		
of_UpdateVisuals	Yes		

u_progressbar

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Event Name	Supported	Limitations	Notes
Constructor	Yes		

u_progressbar

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#) | [Sub Controls](#)



Instance Variable Name	Supported
BAR	Yes
BOTTOMTOP	Yes
ib_autoreset	Yes
ii_displaystyle	Yes
ii_fillstyle	Yes
ii_maximum	Yes
ii_minimum	Yes
ii_msgtextcount	Yes
ii_percentcomplete	Yes
ii_position	Yes
ii_step	Yes
il_backcolor	Yes
il_fillcolor	Yes
il_textcolor	Yes
is_msgtext[]	Yes
LEFTRIGHT	Yes
MSGTEXT	Yes
PCTCOMPLETE	Yes
POSITION	Yes
RIGHTLEFT	Yes
TOPDOWN	Yes

u_progressbar

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#) | Sub Controls



dw_progress DataWindow (inherited from [u_dw](#)):

Event Name	Supported	Limitations	Notes
RButtonDown	Yes		

u_st_splitbar

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Description

Splitbar service. Use this control to add splitbar functionality to two or more controls in a window. Use this object to add a splitbar to a window.

Ancestry

pfc_u_st (u_st) -> pfc_u_st_splitbar (u_st_splitbar)

Library

PFCMAIN.PBL
PFEMAIN.PBL

u_st_splitbar

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Function Name	Supported	Limitations	Notes
of_GetBarColor	Yes		
of_GetBarMoveColor	Yes		
of_GetExtremePoint	Yes		
of_GetHorizontalPointer	Yes		
of_GetInfo	Yes		
of_GetMinObjectSize	Yes		
of_GetVerticalPointer	Yes		
of_IsSupported	No		Comment entire function code and always return TRUE.
of_LButtonUp	Yes	New position may not be correctly got for Tab and UserObject.	
of_MouseMove	Yes	1) Do not support redraw to Tab and UserObject. 2) The split bar (StaticText control)	

		should be wide enough for its MouseMove event to be triggered.	
of_Redraw	Yes	SetRedraw only executes in client/server and not on Web.	
of_Register	Yes		
of_SetBarColor	Yes		
of_SetBarMoveColor	Yes		
of_SetHorizontalPointer	Yes		
of_SetMinObjectSize	Yes		
of_SetVerticalPointer	Yes		
of_UpdateObjectData	Yes		

u_st_splitbar

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Event Name	Supported	Limitations	Notes
Constructor	Yes		
LButtonUp	Yes		
MouseMove	Yes		

u_st_splitbar

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Instance Variable Name	Supported
ABOVE	Yes
BELOW	Yes
BOTTOMMOST	Yes
HORIZONTAL	Yes
ib_performredraw	Yes
idrg_lefttop[]	Yes
idwg_rightbottom[]	Yes
ii_barwidth	Yes
ii_lefttopbound	Yes
ii_minobjectsize	Yes
ii_prevpositionx	Yes
ii_prevpositiony	Yes
ii_bottomrightbound	Yes

ii_rounding	Yes
ii_style	Yes
il_barcolor	Yes
il_barmovecolor	Yes
ir_lefttopheight[]	Yes
ir_lefttopwidth[]	Yes
ir_lefttopx[]	Yes
ir_lefttopy[]	Yes
ir_rightbottomheight[]	Yes
ir_rightbottomwidth[]	Yes
ir_rightbottomx[]	Yes
ir_rightbottomy[]	Yes
is_horizontalpointer	Yes
is_verticalpointer	Yes
itab_parent	Yes
iuo_parent	Yes
iw_parent	Yes
LEFT	Yes
LEFTMOST	Yes
RIGHT	Yes
RIGHTMOST	Yes
TOPMOST	Yes
VERTICAL	Yes

u_tabpg

[Ancestor](#)

APPEON

Description

Tab page visual user object ancestor. Use this visual object in the User Object painter as the ancestor for all tab pages.

Ancestry

pfc_u_base (u_base) -> pfc_u_tabpg (u_tabpg)

Library

PFCMAIN.PBL
PFEMAIN.PBL

Standard Class User Objects

APPEON

n_ds

[Functions](#) | [Events](#) | [Instance Variables](#)



Description

DataStore object for use with all PFC applications. Use n_ds whenever you would normally create a DataStore.

Ancestry

pfc_n_ds (n_ds)

Library

PFCMAIN.PBL
PFEAPSRV.PBL

n_ds

[Functions](#) | [Events](#) | [Instance Variables](#)



Function Name	Supported	Limitations	Notes
of_AcceptText	Yes		
of_CheckRequired	Yes		
of_GetAppend	Yes		
of_GetParent	Yes		
of_GetParentWindow	Yes		
of_IsUpdateable	Yes		
of_MessageBox	Yes		
of_PostUpdate	Yes		
of_Retrieve	Yes		
of_SetAppend	Yes		
of_SetBase	Yes		
of_SetMultiTable	Yes		
of_SetParentWindow	Yes		
of_SetPrintPreview	Yes		
of_SetReport	Yes		
of_SetTransObject	Yes		
of_SetUpdateable	Yes		
of_SetUpdateRequestor	Yes		
of_Update	Yes		
of_UpdatePrep	Yes		
of_UpdatesPending	Yes		
of_Validation	Yes		

n_ds

Event Name	Supported	Limitations	Notes
DBError	Yes		
Destructor	Yes		
pfc_AcceptText	Yes		
pfc_PageSetup	Yes		
pfc_PageSetupDlg	No		Comment entire event script.
pfc_PostUpdate	Yes		
pfc_PrePageSetupDlg	Yes		
pfc_PrePrintDlg	Yes		
pfc_Print	Yes	Unable to set print settings before printing.	
pfc_PrintDlg	No		Comment entire event script.
pfc_PrintImmediate	Yes		
pfc_PrintPreview	Yes		
pfc_ResetUpdate	Yes		
pfc_Retrieve	Yes		
pfc_Ruler	Yes		
pfc_Update	Yes		
pfc_UpdatePrep	Yes		
pfc_UpdatesPending	Yes		
pfc_Validation	Yes		
pfc_Zoom	Yes		
RetrieveEnd	Yes		
RetrieveStart	Yes		
SQLPreview	Yes		

n_ds

Instance Variable Name	Supported
ib_append	Yes
ib_isupdateable	Yes
inv_base	Yes
inv_multitable	Yes
inv_printpreview	Yes

inv_report	Yes
ipo_updaterequest	Yes
is_updatesallowed	Yes
itr_object	Yes

n_tr

[Functions](#) | [Events](#) | [Instance Variables](#)



Description

Transaction object for use with all PFC applications. Use n_tr functions instead of native SQL transaction management statements.

Ancestry

pfc_n_tr (n_tr)

Library

PFCMAIN.PBL
PFEMAIN.PBL

n_tr

[Functions](#) | [Events](#) | [Instance Variables](#)



Function Name	Supported	Limitations	Notes
of_Begin	Yes		
of_Commit	Yes		
of_Connect	Yes		
of_CopyTo	Yes	Unable to copy the object's DBPass, Lock, and SQLReturnData property values to passed-in Transaction object.	
of_Disconnect	Yes		
of_DistinctValues	Yes		Comment SQLDA.
of_End	Yes		
of_Execute	Yes		
of_GetAutoRollback	Yes		
of_GetName	Yes		
of_GetSqlState	Yes		
of_GetTrace	Yes		
of_Init	Yes	Unable to initialize DBPass and Lock properties.	The script event initializes transaction object's properties.
of_IsConnected	Yes	Always return TRUE	

		when running on Web.	
of_MessageBox	Yes		
of_Rollback	Yes		
of_SetAutoRollback	Yes		
of_SetLogidAndPassword	Yes		
of_SetName	Yes		
of_SetTrace	Yes		
of_SetUser	Yes		
of_SetUserIdAndPassword	Yes	Unable to manipulate the DBPass property.	

n_tr

[Functions](#) | [Events](#) | [Instance Variables](#)



Event Name	Supported	Limitations	Notes
Destructor	Yes		

n_tr

[Functions](#) | [Events](#) | [Instance Variables](#)



Instance Variable Name	Supported
ib_autorollback	Yes
ib_trace	Yes
is_name	Yes

n_msg

[Functions](#) | [Instance Variables](#)



Description

Message nonvisual user object ancestor. Use this nonvisual object instead of the standard PowerBuilder Message object.

Ancestry

pfc_n_msg (n_msg)

Library

PFCMAIN.PBL
PFEMAIN.PBL

n_msg

[Functions](#) | [Instance Variables](#)



Function Name	Supported	Limitations	Notes
of_CopyTo	Yes	Unable to copy the Handle, Number, WordParm, LongParm, Processed, and ReturnValue properties.	
of_GetDoubleParm	Yes		
of_GetPowerObjectParm	Yes		
of_GetStringParm	Yes		
of_MessageBox	Yes		
of_SetDoubleParm	Yes		
of_SetPowerObjectParm	Yes		
of_SetStringParm	Yes		

n_msg

[Functions](#) | [Instance Variables](#)



Instance Variable Name	Supported
idbl_parm	Yes
ipo_parm	Yes
is_parm	Yes

Custom Class User Objects



n_base

[Functions](#) | [Instance Variables](#)



Description

Ancestor object for all PFC custom class user objects. PFC uses this object as the ancestor for all custom class user objects.

Ancestry

pf_c_n_base (n_base)

All PFC custom class user objects descend from n_base.

Library

PFCMAIN.PBL
PFEMAIN.PBL

n_base

Functions | [Instance Variables](#)



Function Name	Supported	Limitations	Notes
of_MessageBox	Yes		

n_base

[Functions](#) | Instance Variables



Instance Variable Name	Supported
CONTINUE_ACTION	Yes
FAILURE	Yes
NO_ACTION	Yes
PREVENT_ACTION	Yes
SUCCESS	Yes

n_cst_appmanager

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Description

N_cst_appmanager is the application manager and functions as a substitute for the Application object. It contains many useful functions as well as reference variables for application services.

Ancestry

pfc_n_base (n_base) --> pfc_n_cst_appmanager (n_cst_appmanager)

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

n_cst_appmanager

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Function Name	Supported	Limitations	Notes
of_About	Yes		
of_GetAppIniFile	Yes		
of_GetAppKey	Yes		
of_GetCopyright	Yes		
of_GetFrame	Yes		

of_GetHelpFile	Yes		
of_GetLogo	Yes		
of_GetMicrohelp	Yes		
of_GetUserID	Yes		
of_GetUserIniFile	Yes		
of_GetUserKey	Yes		
of_GetVersion	Yes		
of_IsRegistryAvailable	No		Comment entire function script. Always return TRUE.
of_LogonDlg	Yes		
of_SetAppIniFile	Yes		
of_SetAppKey	Yes		
of_SetAppPreference	Yes		
of_SetCopyright	Yes		
of_SetDebug	Yes		
of_SetDwCache	Yes		
of_SetError	Yes		
of_SetFrame	Yes		
of_SetHelpFile	Yes		
of_SetLogo	Yes		
of_SetMicrohelp	Yes		
of_SetMRU	Yes		
of_SetSecurity	Yes		
of_SetTrRegistration	Yes		
of_SetUserID	Yes		
of_SetUserIniFile	Yes		
of_SetUserKey	Yes		
of_SetVersion	Yes		
of_Splash	Yes		

n_cst_appmanager

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Event Name	Supported	Limitations	Notes
Constructor	Yes		
Destructor	Yes		
pfc_Close	Yes		
pfc_ConnectionBegin	Yes		

pfc_ConnectionEnd	Yes		
pfc_Exit	Yes		
pfc_Idle	Yes		
pfc_Logon	Yes		
pfc_Open	Yes	Do not support Application DWMMessageTitle property.	
pfc_PreAbout	Yes		
pfc_PreLogonDlg	Yes	Always initialize the user ID to "" (through n_cst_platform) after failing in getting the user ID from Registry or INI file.	The event script populates logon object before the logon window opens.
pfc_PreSplash	Yes		
pfc_SystemError	Yes	Running in B/S: Unable to display error messages and exit application immediately when system errors occur.	

n_cst_appmanager

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Instance Variable Name	Supported
iapp_object	Yes
ib_microhelp	Yes
ienv_object	No
inv_apppref	Yes
inv_debug	Yes
inv_dwcache	Yes
inv_error	Yes
inv_mru	Yes
inv_security	Yes
inv_trregistration	Yes
is_appinifile	Yes
is_appkey	Yes
is_copyright	Yes
is_helpfile	Yes
is_logo	Yes
is_userid	Yes

is_userinifile	Yes
is_userkey	Yes
is_version	Yes
iw_frame	Yes

n_cst_appreference

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Description

Application preference service. When enabled, you can use n_cst_appreference to save and restore application and user information using either an INI file or the Windows registry.

Ancestry

pfc_n_base (n_base) --> pfc_n_cst_appreference (n_cst_appreference)

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

n_cst_appreference

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Function Name	Supported	Limitations	Notes
of_IsRestoreApp	Yes		
of_IsRestoreUser	Yes		
of_Restore	Yes		
of_RestoreApp	Yes	Unable to manipulate unsupported Application properties: DDETimeOut, DWMessageTitle, RightToLeft, ToolbarPopupMenuText, ToolbarUserControl.	
of_RestoreUser	Yes	Unable to manipulate unsupported Application properties: ToolbarText.	
of_Save	Yes		
of_SaveApp	Yes	Unable to manipulate unsupported Application properties: DDETimeOut, DWMessageTitle, RightToLeft, ToolbarPopupMenuText, ToolbarUserControl.	
of_SaveUser	Yes	Unable to manipulate unsupported Application	

		properties: ToolbarText.	
of_SetAppIniFile	Yes		
of_SetAppKey	Yes		
of_SetRequestor	Yes		
of_SetRestoreApp	Yes		
of_SetRestoreUser	Yes		
of_SetUserIniFile	Yes		
of_SetUserKey	Yes		

n_cst_apppreference

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Event Name	Supported	Limitations	Notes
Constructor	Yes		
pfc_Close	Yes		
pfc_Open	Yes		

n_cst_apppreference

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Instance Variable Name	Supported
ib_restoreapp	Yes
ib_restoreuser	Yes
inv_appmanager	Yes
is_appinifile	Yes
is_appkey	Yes
is_appprefsection	Yes
is_userinifile	Yes
is_userkey	Yes
is_userpref	Yes

n_cst_color

[Ancestor](#) | [Instance Variables](#)



Description

Color object. This object contains a set of constants you can reference to specify color values.

Ancestry

pfc_n_base (n_base) --> pfc_n_cst_color (n_cst_color)

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

n_cst_color

[Ancestor](#) | Instance Variables



Instance Variable Name	Supported
APPLICATION_WORKSPACE	Yes
BLACK	Yes
BLUE	Yes
BROWN	Yes
BUTTONFACE	Yes
CYAN	Yes
DARK_BLUE	Yes
DARK_CYAN	Yes
DARK_GRAY	Yes
DARK_GREEN	Yes
DARK_MAGENTA	Yes
DARK_RED	Yes
GREEN	Yes
LIGHT_GRAY	Yes
MAGENTA	Yes
RED	Yes
TRANSPARENT	Yes
WHITE	Yes
WINDOW_BACKGROUND	Yes
WINDOW_TEXT	Yes
YELLOW	Yes

n_cst_conversion

[Ancestor](#) | [Functions](#)



Description

Data type conversion service. This service provides functions you can call to convert values from one data type to another. For example, you can call the of_Boolean function to convert an integer or a string into a boolean value.

Ancestry

pfc_n_base (n_base) --> pfc_n_cst_conversion (n_cst_conversion)

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

n_cst_conversion

[Ancestor](#) | Functions



Function Name	Supported	Limitations	Notes
of_Boolean	Yes		
of_Button	Yes		
of_Date	Yes		
of_DWItemStatus	Yes		
of_Icon	Yes		
of_Integer	Yes		
of_OSType	Yes		
of_SQLPreviewType	Yes		
of_String	Yes		
of_Time	Yes		
of_ToolbarAlignment	Yes		
of_WindowState	Yes		

n_cst_datetime

[Ancestor](#) | [Functions](#)

**Description**

Date/time service. This service provides functions that you can call to perform calculations with dates. For example, you can call the of_SecondsAfter function to determine the number of seconds between two date/time values.

Ancestry

pf_c_n_base (n_base) --> pf_c_n_cst_datetime (n_cst_datetime)

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

n_cst_datetime

[Ancestor](#) | Functions



Function Name	Supported	Limitations	Notes
of_DayOfWeek	Yes		
of_Days	Yes		

of_FirstDayOfMonth	Yes		
of_Gregorian	Yes		
of_Hours	Yes		
of_IsLeapYear	Yes		
of_IsValid	Yes		
of_IsWeekDay	Yes		
of_IsWeekEnd	Yes		
of_Julian	Yes		
of_JulianDayNumber	Yes		
of_LastDayOfMonth	Yes		
of_MilliSecsAfter	Yes		
of_MonthName	Yes		
of_MonthsAfter	Yes		
of_RelativeDateTime	Yes		
of_RelativeMonth	Yes		
of_RelativeYear	Yes		
of_SecondsAfter	Yes		
of_Wait	No		Comment entire function script.
of_WeekNumber	Yes		
of_WeeksAfter	Yes		
of_YearsAfter	Yes		

n_cst_dssrv

[Ancestor](#) | [Functions](#) | [Instance Variables](#)



Description

Base DataStore service object. Call the functions in this object to obtain basic information about a DataStore and its contents.

Ancestry

pfcd_n_base (n_base) --> pfcd_n_cst_dssrv (n_cst_dssrv)

Library

PFCDWSRV.PBL
PFEDWSRV.PBL

n_cst_dssrv

[Ancestor](#) | [Functions](#) | [Instance Variables](#)



Function Name	Supported	Limitations	Notes
of_Describe	Yes		

of_DWArguments	Yes		
of_GetColumnDisplayName	Yes		
of_GetColumnDisplayNameStyle	Yes		
of_GetColumnNameSource	Yes		
of_GetDefaultHeaderSuffix	Yes		
of_GetDisplayItem	Yes		
of_GetDisplayUnits	Yes		
of_GetHeaderName	Yes		
of_GetHeight	Yes		
of_GetInfo	Yes		
of_GetItem	Yes		
of_GetItemAny	Yes		
of_GetObjects	Yes		
of_GetWidth	Yes		
of_Modify	Yes		
of_PopulateDDDW	Yes		
of_RefreshDDDWs	Yes		
of_SetColumnNameSource	Yes		
of_SetDefaultHeaderSuffix	Yes		
of_SetDisplayItem	Yes		
of_SetDisplayUnits	Yes		
of_SetItem	Yes		
of_SetRequestor	Yes		

n_cst_dssrv

[Ancestor](#) | [Functions](#) | [Instance Variables](#)



Instance Variable Name	Supported
DEFAULT	Yes
DBNAME	Yes
HEADER	Yes
ii_source	Yes
is_defaultheadersuffix	Yes
is_displayunits	Yes
is_displayitem	Yes
ids_requestor	Yes

n_cst_dssrv_multitable

[Ancestor](#) | [Functions](#) | [Instance Variables](#)

Description

A collection of functions that facilitate the updating of DataStores that contain rows from more than one table. Use this object to handle update of multiple tables within a DataStore.

Ancestry

pfc_n_base (n_base)
 --> pfc_n_cst_dssrv (n_cst_dssrv)
 --> pfc_n_cst_dssrv_multitable (n_cst_dssrv_multitable)

Library

PFCDWSRV.PBL
 PFEDWSRV.PBL

n_cst_dssrv_multitable

[Ancestor](#) | [Functions](#) | [Instance Variables](#)

Function Name	Supported	Limitations	Notes
of_GetInfo	Yes		
of_GetRegisterable	Yes		
of_GetRegisterableColumn	Yes		
of_GetRegisterableTable	Yes		
of_GetRegistered	Yes		
of_IsRegistered	Yes		
of_Register	Yes		
of_RestoreUpdateSettings	Yes		
of_StoreUpdateSettings	Yes		
of_UnRegister	Yes		
of_Update	Yes		

n_cst_dssrv_multitable

[Ancestor](#) | [Functions](#) | [Instance Variables](#)

Instance Variable Name	Supported
inv_newupdate[]	Yes
istr_newupdate[]	Yes

n_cst_dwcache

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)

Description

Caching service. This object is designed to contain data used in multiple places within an application. It provides a single data source, eliminating redundant database retrievals.

Ancestry

pfc_n_base (n_base) --> pfc_n_cst_dwcache (n_cst_dwcache)

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

n_cst_dwcache

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Function Name	Supported	Limitations	Notes
of_GetCount	Yes		
of_GetRegistered	Yes		
of_IsRegistered	Yes		
of_Refresh	Yes	Do not support using files as data source and caching SQL statements.	Comment FileExists and ImportFile functions.
of_Register	Yes	Do not support using files as data source and caching SQL statements.	Comment FileExists and ImportFile functions.
of_RegisterArgs	Yes		
of_UnRegister	Yes		

n_cst_dwcache

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Event Name	Supported	Limitations	Notes
Destructor	Yes		

n_cst_dwcache

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Instance Variable Name	Supported
DATAOBJECTDATA	Yes
DATASTORECONTROL	Yes
DATAWINDOWCONTROL	Yes

EMPTY	Yes
ics_dataobjectdata	Yes
ics_powerobject	Yes
ics_retrieve	Yes
IMPORTFILE	Yes
inv_cachelist []	Yes
istr_cachelist[]	Yes
POWEROBJECT	Yes
RETRIEVE	Yes
SQL	Yes

n_cst_dwsrv

[Ancestor](#) | [Functions](#) | [Instance Variables](#)



Description

Base DataWindow services object. N_cst_dwsrv serves as the ancestor object for all DataWindow services. In addition to being the ancestor for all other DataWindow services, u_dw instantiates this user object as inv_base.

Ancestry

pfcdwsrv (n_base) --> pfcdwsrv (n_cst_dwsrv)

Descendants

[n_cst_dwsrv_dropdownsearch](#)
[n_cst_dwsrv_filter](#)
[n_cst_dwsrv_find](#)
[n_cst_dwsrv_linkage](#)
[n_cst_dwsrv_multitable](#)
[n_cst_dwsrv_printpreview](#)
[n_cst_dwsrv_property](#)
[n_cst_dwsrv_querymode](#)
[n_cst_dwsrv_report](#)
[n_cst_dwsrv_reqcolumn](#)
[n_cst_dwsrv_resize](#)
[n_cst_dwsrv_rowmanager](#)
[n_cst_dwsrv_rowselection](#)
[n_cst_dwsrv_sort](#)

Library

PFCDWSRV.PBL
PFEDWSRV.PBL

n_cst_dwsrv

[Ancestor](#) | [Functions](#) | [Instance Variables](#)



Function Name	Supported	Limitations	Notes
of_BuildComparison	Yes		

of_BuildExpression	Yes		
of_Describe	Yes		
of_DWArguments	Yes		
of_GetColumnDisplayName	Yes		
of_GetColumnDisplayNameStyle	Yes		
of_GetColumnNameSource	Yes		
of_GetDefaultHeaderSuffix	Yes		
of_GetDisplayItem	Yes		
of_GetDisplayUnits	Yes		
of_GetHeaderName	Yes		
of_GetHeight	Yes		
of_GetInfo	Yes		
of_GetItem	Yes		
of_GetItemAny	Yes		
of_GetObjects	Yes		
of_GetPropertyInfo	Yes		
of_GetWidth	Yes		
of_Modify	Yes		
of_PopulateDDDWW	Yes		
of_RefreshDDDWWs	Yes		
of_SetColumnDisplayNameStyle	Yes		
of_SetColumnNameSource	Yes		
of_SetDefaultHeaderSuffix	Yes		
of_SetDisplayItem	Yes		
of_SetDisplayUnits	Yes		
of_SetItem	Yes		
of_SetRequestor	Yes		
of_BuildExpression	N/A		Appeon-added overloading function for internal use.
of_GetItemAny	N/A		Appeon-added overloading function for internal use.
of_GetValuesArray	N/A		Appeon-added function for internal use.
of_LookUpDisplay	N/A		Appeon-added function for internal use.
of_MultiModify	N/A		Appeon-added function to work around modifying multiple DataWindow

			properties.
--	--	--	-------------

n_cst_dwsrv

[Ancestor](#) | [Functions](#) | Instance Variables



Instance Variable Name	Supported
DBNAME	Yes
DEFAULT	Yes
HEADER	Yes
idw_requestor	Yes
ii_source	Yes
is_defaultheadersuffix	Yes
is_displayitem	Yes
is_displayunits	Yes

n_cst_dwsrv_dropdownsearch

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Description

Scrolls a DropDownDataWindow or DropDownListBox automatically, filling in the field as the user types.

Ancestry

```
pfc_n_base (n_base)
--> pfc_n_cst_dwsrv (n_cst_dwsrv)
--> pfc_n_cst_dwsrv_dropdownsearch (n_cst_dwsrv_dropdownsearch)
```

Library

```
PFCDWSRV.PBL
PFEDWSRV.PBL
```

n_cst_dwsrv_dropdownsearch

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Function Name	Supported	Limitations	Notes
of_AddColumn	Yes		
of_DeletetItem	Yes		
of_GetColumn	Yes		
of_GetInfo	Yes		
of_GetPropertyInfo	Yes		
of_GetRegisterable	Yes		

of_GetRegistered	Yes		
of_IsRegistered	Yes		
of_Register	Yes		
of_RemoveColumn	Yes		
of_SearchItem	Yes		
of_UnRegister	Yes		

n_cst_dwsrv_dropdownsearch

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Event Name	Supported	Limitations	Notes
pfc_EditChanged	Yes	Unable to highlight text or move the cursor as appropriate.	The event script provides type ahead features.
pfc_ItemFocusChanged	Yes		

n_cst_dwsrv_dropdownsearch

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Instance Variable Name	Supported
ib_performsearch	Yes
ii_currentindex	Yes
inv_columns []	Yes
is_textprev	Yes

n_cst_dwsrv_filter

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Description

Filter service. Provides functions that make it easy for you to add DataWindow filter functionality to an application. This service allows you to choose among three styles of filter dialog boxes.

Ancestry

```
pfc_n_base (n_base)
--> pfc_n_cst_dwsrv (n_cst_dwsrv)
--> pfc_n_cst_dwsrv_filter (n_cst_dwsrv_filter)
```

Library

```
PFCDWSRV.PBL
PFEDWSRV.PBL
```

n_cst_dwsrv_filter

Function Name	Supported	Limitations	Notes
of_BuildFilterAttrib	Yes		
of_Filter	Yes		
of_GetExclude	Yes		
of_GetFilter	Yes		
of_GetInfo	Yes		
of_GetPropertyInfo	Yes		
of_GetRegisterable	Yes		
of_GetStyle	Yes		
of_GetVisibleOnly	Yes		
of_SetExclude	Yes		
of_SetFilter	Yes		
of_SetStyle	Yes	Unable to set DW object Help. <i>property</i> property.	
of_SetVisibleOnly	Yes		

n_cst_dwsrv_filter

Event Name	Supported	Limitations	Notes
pfc_FilterDlg	Yes		

n_cst_dwsrv_filter

Instance Variable Name	Supported
EXTENDED	Yes
ib_visibleonly	Yes
ii_style	Yes
is_excludecolumns[]	Yes
is_filterin	Yes
is_filterout	Yes
SIMPLE	Yes

n_cst_dwsrv_find

Description

Find and replace service. Provides functions and events that make it easy for you to add find and replace functionality to your application's DataWindows.

Ancestry

```

pfc_n_base (n_base)
--> pfc_n_cst_dwsrv (n_cst_dwsrv)
--> pfc_n_cst_dwsrv_find (n_cst_dwsrv_find)

```

Library

```

PFCDWSRV.PBL
PFEDWSRV.PBL

```

n_cst_dwsrv_find

Function Name	Supported	Limitations	Notes
of_BuildColumnNames	Yes		
of_BuildFindExpression	Yes		
of_CompareAttrib	Yes		
of_Find	Yes	Unable to select text as appropriate.	
of_FindStartAndEndRows	Yes		
of_GetColumnEditStatus	Yes		
of_GetInfo	Yes		
of_GetPropertyInfo	Yes		
of_IncludeComputes	Yes		
of_Initialize	Yes		
of_IsAllowFindDlg	Yes		
of_IsAllowReplaceDlg	Yes		
of_IsOngoingFind	Yes		
of_Replace	Yes		
of_SelectText	Yes		
of_SetAllowFindDlg	Yes		
of_SetAllowReplaceDlg	Yes		

n_cst_dwsrv_find

Event Name	Supported	Limitations	Notes
------------	-----------	-------------	-------

Destructor	Yes		
pfc_FindDlg	Yes		
pfc_FindNext	Yes		
pfc_Replace	Yes		
pfc_ReplaceAll	Yes		
pfc_ReplaceDlg	Yes		

n_cst_dwsrv_find

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Instance Variable Name	Supported
ib_allowfinddlg	Yes
ib_allowreplacedlg	Yes
ib_includecomputes	Yes
ib_ongoingfind	Yes
ib_replaced	Yes
il_lastfindrow	Yes
inv_findattrib	Yes
is_findexpression	Yes
is_lastfindcolumn	Yes

n_cst_dwsrv_linkage

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Description

Service for linking DataWindow actions. This is typically used for Master/Detail processing.

Ancestry

```
pfc_n_base (n_base)
--> pfc_n_cst_dwsrv (n_cst_dwsrv)
--> pfc_n_cst_dwsrv_linkage (n_cst_dwsrv_linkage)
```

Library

```
PFCDWSRV.PBL
PFEDWSRV.PBL
```

n_cst_dwsrv_linkage

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Function Name	Supported	Limitations	Notes

of_AcceptText	Yes		
of_CheckRequired	Yes		
of_ConfirmOnDelete	Yes		
of_ConfirmOnRowChange	Yes		
of_CreateUpdateSequence	Yes		
of_DeleteDetailRows	Yes		
of_DeleteRows	Yes		
of_FilterDetails	Yes		
of_FindRoot	Yes		
of_GetArguments	Yes		
of_GetCustomUpdate	Yes		
of_GetDeleteStyle	Yes		
of_GetDetails	Yes		
of_GetInfo	Yes		
of_GetMaster	Yes		
of_GetOtherSaveObjects	Yes		
of_GetPropertyInfo	Yes		
of_GetRegistered	Yes		
of_GetSaveSound	Yes		
of_GetStyle	Yes		
of_GetUpdateBottomUp	Yes		
of_GetUpdatesPending	Yes		
of_GetUpdateStyle	Yes		
of_GetUseCollinks	Yes		
of_GetValue	Yes		
of_IsConfirmOnDelete	Yes		
of_IsConfirmOnRowChange	Yes		
of_IsKey	Yes		
of_IsLinked	Yes		
of_IsRoot	Yes		
of_IsStatusOnInsertRow	Yes		
of_IsSyncOnKeyChange	Yes		
of_IsUpdateOnRowChange	Yes		
of_ItemFocusChanged	Yes		
of_KeyChanged	Yes		
of_KeySync	Yes		
of_LinkDetail	Yes		
of_LinkTo	Yes		
of_PostUpdate	Yes		

of_Refresh	Yes		
of_Register	Yes		
of_Reset	Yes		
of_ResetArguments	Yes		
of_ResetMaster	Yes		
of_ResetUpdate	Yes		
of_Retrieve	Yes		
of_RetrieveDetails	Yes		
of_Save	Yes	Unable to start the appropriate platform service after successful save.	
of_ScrollDetails	Yes		
of_SetArguments	Yes		
of_SetConfirmOnDelete	Yes		
of_SetConfirmOnRowChange	Yes		
of_SetCustomUpdate	Yes		
of_SetDeleteStyle	Yes		
of_SetKeyCols	Yes		
of_SetKeyValues	Yes		
of_SetMaster	Yes		
of_SetOtherSaveObjects	Yes		
of_SetRedraw	Yes		
of_SetSaveSound	Yes		
of_SetStatusOnInsertRow	Yes		
of_SetStyle	Yes		
of_SetSyncOnKeyChange	Yes		
of_SetTransObject	Yes		
of_SetUpdateBottomUp	Yes		
of_SetUpdateOnRowChange	Yes		
of_SetUpdateRequestor	Yes		
of_SetUpdateStyle	Yes		
of_SetUseCollinks	Yes		
of_TriggerEvent	Yes		
of_UndoModified	Yes		
of_Unlink	Yes		
of_UnlinkDetail	Yes		
of_UnRegister	Yes		
of_Update	Yes		
of_UpdateBottomUp	Yes		

of_UpdateBottomUpAndTopDown	Yes		
of_UpdateCustom	Yes		
of_UpdateOnRowChange	Yes		
of_UpdatePrep	Yes		
of_UpdateTopDown	Yes		
of_UpdateTopDownAndBottomUp	Yes		
of_Validation	Yes		

n_cst_dwsrv_linkage

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Event Name	Supported	Limitations	Notes
Constructor	Yes		
Destructor	Yes		
pfc_Clicked	Yes		
pfc_DeleteRow	Yes		
pfc_InsertRow	Yes		
pfc_ItemChanged	Yes		
pfc_ItemFocusChanged	Yes		
pfc_PreDeleteRow	Yes		
pfc_PreInsertRow	Yes		
pfc_RButtonDown	Yes		
pfc_RetrieveEnd	Yes		
pfc_RetrieveStart	Yes		
pfc_RowChanged	Yes		
pfc_RowFocusChanged	Yes		
pfc_RowFocusChanging	Yes		

n_cst_dwsrv_linkage

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Instance Variable Name	Supported
BOTTOMUP	Yes
BOTTOMUP_TOPDOWN	Yes
CUSTOM	Yes
DELETE_ROWS	Yes
DISCARD_ROWS	Yes
FILTER	Yes

ib_confirmdelete	Yes
ib_confirmonrowchange	Yes
ib_retrieving	Yes
ib_synconkeychange	Yes
ib_updatebottomup	Yes
ib_updateonrowchange	Yes
idw_details[]	Yes
idw_master	Yes
ii_collinkuse	Yes
ii_customupdate	Yes
ii_deletestyle	Yes
ii_updatestyle	Yes
il_priorrow	Yes
inv_linkargs	Yes
inv_platform	No
ipo_othersaveobjects[]	Yes
is_filterexp	Yes
is_keycols[]	Yes
is_keycolsvalue[]	Yes
is_savesound	Yes
RETRIEVE	Yes
SCROLL	Yes
TOPDOWN	Yes
TOPDOWN_BOTTOMUP	Yes

n_cst_dwsrv_multitable

[Ancestor](#) | [Functions](#) | [Instance Variables](#)



Description

A collection of functions that facilitate update operations for DataWindows that contain rows from more than one table.

Ancestry

```

pfc_n_base (n_base)
--> pfc_n_cst_dwsrv (n_cst_dwsrv)
--> pfc_n_cst_dwsrv_multitable (n_cst_dwsrv_multitable)

```

Library

```

PFCDWSRV.PBL
PFEDWSRV.PBL

```

n_cst_dwsrv_multitable

[Ancestor](#) | [Functions](#) | [Instance Variables](#)



Function Name	Supported	Limitations	Notes
of_AddToUpdate	Yes		
of_GetInfo	Yes		
of_GetPropertyInfo	Yes		
of_GetRegisterable	Yes		
of_GetRegisterableColumn	Yes		
of_GetRegisterableTable	Yes		
of_GetRegistered	Yes		
of_IsRegistered	Yes		
of_Register	Yes		
of_RestoreUpdateSettings	Yes		
of_StoreUpdateSettings	Yes		
of_UnRegister	Yes		
of_Update	Yes		

n_cst_dwsrv_multitable

[Ancestor](#) | [Functions](#) | [Instance Variables](#)



Instance Variable Name	Supported
inv_newupdate []	Yes

n_cst_dwsrv_reqcolumn

[Ancestor](#) | [Functions](#) | [Instance Variables](#)



Description

DataWindow required column service. This service enables and disables default DataWindow processing for required fields, making it easier for your application to handle interdependent fields within a DataWindow.

Ancestry

```

pfc_n_base (n_base)
--> pfc_n_cst_dwsrv (n_cst_dwsrv)
--> pfc_n_cst_dwsrv_reqcolumn (n_cst_dwsrv_reqcolumn)

```

Library

```

PFCDWSRV.PBL
PFEDWSRV.PBL

```

n_cst_dwsrv_reqcolumn

[Ancestor](#) | [Functions](#) | [Instance Variables](#)



Function Name	Supported	Limitations	Notes
of_GetInfo	Yes		
of_GetPropertyInfo	Yes		
of_GetRegisterable	Yes		
of_GetRegistered	Yes		
of_IsRegistered	Yes		
of_RegisterSkipColumn	Yes		
of_SetToNullIfEmpty	Yes		
of_UnRegister	Yes		
of_UpdateSkipString	Yes		

n_cst_dwsrv_reqcolumn

[Ancestor](#) | [Functions](#) | Instance Variables



Instance Variable Name	Supported
is_skip	Yes
is_skipcolumn[]	Yes

n_cst_dwsrv_resize

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Description

DataWindow resize service. This object resizes the objects within a DataWindow object, including columns, computed fields, bitmaps, and text.

Ancestry

```
pfc_n_base (n_base)
--> pfc_n_cst_dwsrv (n_cst_dwsrv)
--> pfc_n_cst_dwsrv_resize (n_cst_dwsrv_resize)
```

Library

```
PFCDWSRV.PBL
PFEDWSRV.PBL
```

NOTE:

There may be Appeon bugs that cause this object not to function correctly. (Nov. 17, 2003)

n_cst_dwsrv_resize

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Function Name	Supported	Limitations	Notes
of_GetInfo	Yes		

of_GetObjectInformation	Yes		
of_GetPropertyInfo	Yes		
of_GetRegisterable	Yes		
of_GetRegistered	Yes		
of_IsRegistered	Yes		
of_Register	Yes		
of_Resize	Yes		
of_SetMinSize	Yes		
of_SetOrigSize	Yes		
of_SetRequestor	Yes		
of_UnRegister	Yes		

n_cst_dwsrv_resize

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Event Name	Supported	Limitations	Notes
pfc_Resize	Yes		

n_cst_dwsrv_resize

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Instance Variable Name	Supported
EMPTY	Yes
FIXEDBOTTOM	Yes
FIXEDBOTTOM_SCALERIGHT	Yes
FIXEDRIGHT	Yes
FIXEDRIGHT_SCALEBOTTOM	Yes
FIXEDRIGHTBOTTOM	Yes
ii_rounding	Yes
il_parentminimumheight	Yes
il_parentminimumwidth	Yes
il_parentprevheight	Yes
il_parentprevwidth	Yes
inv_registered []	Yes
LINE	Yes
SCALE	Yes
SCALEBOTTOM	Yes
SCALERIGHT	Yes

SCALERIGHTBOTTOM	Yes
------------------	-----

n_cst_dwsrv_rowmanager

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Description

Row management service. Use this service to enhance your application's row management capabilities.

Ancestry

pfc_n_base (n_base)
 --> pfc_n_cst_dwsrv (n_cst_dwsrv)
 --> pfc_n_cst_dwsrv_rowmanager (n_cst_dwsrv_rowmanager)

Library

PFCDWSRV.PBL
 PFEDWSRV.PBL

n_cst_dwsrv_rowmanager

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Function Name	Supported	Limitations	Notes
of_ConfirmDelete	Yes		
of_DeleteAll	Yes		
of_DeleteRow	Yes		
of_DeleteSelected	Yes		
of_GetConfirmOnDelete	Yes		
of_GetInfo	Yes		
of_GetPropertyInfo	Yes		
of_InsertRow	Yes		
of_IsRestoreRow	Yes		
of_SetConfirmOnDelete	Yes		
of_SetRestoreRow	Yes		
of_UnDelete	Yes		

n_cst_dwsrv_rowmanager

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Event Name	Supported	Limitations	Notes
pfc_AddRow	Yes		
pfc_DeleteRow	Yes		

pfcd_InsertRow	Yes		
pfcd_RestoreRow	Yes		

n_cst_dwsrv_rowmanager

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Instance Variable Name	Supported
ib_confirmdelete	Yes
ib_restorerow	Yes

n_cst_dwsrv_rowselection

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Description

Row selection service. This service handles all row selection automatically.

Ancestry

```

pfcd_n_base (n_base)
--> pfcd_n_cst_dwsrv (n_cst_dwsrv)
--> pfcd_n_cst_dwsrv_rowselection (n_cst_dwsrv_rowselection)

```

Library

```

PFCDWSRV.PBL
PFEDWSRV.PBL

```

n_cst_dwsrv_rowselection

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Function Name	Supported	Limitations	Notes
of_ButtonUp	Yes		
of_GetInfo	Yes		
of_GetPropertyInfo	Yes		
of_GetStyle	Yes		
of_InvertSelection	Yes		
of_IsKeyboard	Yes		
of_KeybRowSelect	Yes	Unable to perform extended selection.	
of_KeybRowSelectExt	Yes		
of_RowSelect	Yes	Unable to perform extended selection.	
of_RowSelectExt	Yes		
of_RowSelectMulti	Yes		

of_RowSelectSingle	Yes		
of_SelectedCount	Yes		
of_SetKeyboard	Yes		
of_SetStyle	Yes		

n_cst_dwsrv_rowselection

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Event Name	Supported	Limitations	Notes
pfc_Clicked	Yes		
pfc_LButtonDown	Yes		
pfc_LButtonUp	Yes		
pfc_RButtonDown	Yes		
pfc_RButtonUp	Yes		
pfc_RowFocusChanged	Yes		

n_cst_dwsrv_rowselection

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Instance Variable Name	Supported
EXTENDED	Yes
ib_keyboard	Yes
ib_lbuttonpressed	Yes
ib_prevcntrl	Yes
ib_prevshift	Yes
ib_rbuttonpressed	Yes
ii_style	Yes
il_anchorrow	Yes
il_currclickedrow	Yes
il_prevclickedrow	Yes
il_prevrow	Yes
il_prevrowcount	Yes
MULTIPLE	Yes
SINGLE	Yes

n_cst_dwsrv_sort

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Description

Sort service. Provides functions that make it easy for you to add DataWindow sort functionality to an application.

Ancestry

```

pfc_n_base (n_base)
--> pfc_n_cst_dwsrv (n_cst_dwsrv)
--> pfc_n_cst_dwsrv_sort (n_cst_dwsrv_sort)

```

Library

```

PFCDWSRV.PBL
PFEDWSRV.PBL

```

n_cst_dwsrv_sort

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Function Name	Supported	Limitations	Notes
of_BuildSortAttrib	Yes		
of_GetColumnHeader	Yes		
of_GetExclude	Yes		
of_GetInfo	Yes		
of_GetPropertyInfo	Yes		
of_GetRegisterable	Yes		
of_GetSort	Yes		
of_GetStyle	Yes		
of_GetUseDisplay	Yes		
of_GetVisibleOnly	Yes		
of_ParseSortAttrib	Yes		
of_SetColumnHeader	Yes		
of_SetExclude	Yes		
of_SetSort	Yes		
of_SetStyle	Yes	Unable to set DW object Help. <i>property</i> property.	
of_SetUseDisplay	Yes		
of_SetVisibleOnly	Yes		
of_Sort	Yes		
of_UsesDisplayValue	Yes		

n_cst_dwsrv_sort

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



--	--	--	--

Event Name	Supported	Limitations	Notes
pfc_Clicked	Yes		
pfc_SortDlg	Yes		

n_cst_dwsrv_sort

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Instance Variable Name	Supported
DRAGDROP	Yes
DROPDOWNLISTBOX	Yes
ib_columnheadersort	Yes
ib_displayvalues	Yes
ib_visibleonly	Yes
ii_style	Yes
is_excludecolumns[]	Yes
is_sortcolumn	Yes
is_sortorder	Yes
SIMPLE	Yes

n_cst_error

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Description

Error message service. Provides many features for handling your application's error messages.

Ancestry

pfc_n_base (n_base) --> pfc_n_cst_error (n_cst_error)

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

n_cst_error

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Function Name	Supported	Limitations	Notes
of_CreateLogText	Yes		
of_CreateNotifyText	Yes		
of_GetBeep	Yes		
of_GetLogFile	Yes		

of_GetLogFileStyle	Yes		
of_GetLogSeverity	Yes		
of_GetNotifyConnection	No		Comment entire function script.
of_GetNotifyPreTitle	Yes		
of_GetNotifySeverity	Yes		
of_GetNotifyWho	Yes		
of_GetPredefinedSource	Yes		
of_GetPredefinedSourceType	Yes		
of_GetStyle	Yes		
of_GetTimeOut	Yes		
of_GetUnattended	Yes		
of_GetUser	Yes		
of_LoadPredefinedMsg	Yes	Loading messages from files does not function properly.	
of_Message	Yes		
of_ProcessLog	No		Comment entire function script.
of_ProcessMessage	Yes		
of_ProcessMessageSubstitution	Yes		
of_ProcessNotify	No		Comment entire function script.
of_SetBeep	Yes		
of_SetLogFile	Yes		
of_SetLogFileStyle	Yes		
of_SetLogSeverity	Yes		
of_SetNotifyConnection	No		Comment entire function script.
of_SetNotifyPreTitle	Yes		
of_SetNotifySeverity	Yes		
of_SetNotifyWho	Yes		
of_SetPredefinedSource	Yes		
of_SetStyle	Yes		
of_SetTimeOut	Yes		
of_SetUnattended	Yes		
of_SetUser	Yes		

n_cst_error

Event Name	Supported	Limitations	Notes
Destructor	Yes		

n_cst_error

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Instance Variable Name	Supported
DATABASE	Yes
DEFAULT	Yes
FILE	Yes
ib_beep	Yes
ib_unattended	Yes
ids_messages	Yes
ii_logfilestyle	Yes
ii_logseverity	Yes
ii_notifyseverity	Yes
ii_style	Yes
ii_timeout	Yes
ims_mses	Yes
inv_conversion	Yes
inv_errorpass	Yes
inv_filesrv	Yes
inv_string	Yes
is_logfile	Yes
is_msgfile	Yes
is_msgsrc	Yes
is_notifyaddress[]	Yes
is_notifypretile	Yes
is_notifywho[]	Yes
is_user	Yes
itr_msgdb	Yes
NEWLINE_DELIMITED	Yes
PFCWINDOW	Yes
TAB_DELIMITED	Yes

n_cst_linkedlistbase

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Description

List service ancestor object.

Ancestry

pf_c_n_base (n_base) --> pf_c_n_cst_linkedlistbase (n_cst_linkedlistbase)

Descendants

[n_cst_list](#)
[n_cst_queue](#)
[n_cst_stack](#)

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

n_cst_linkedlistbase

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Function Name	Supported	Limitations	Notes
of_Add	Yes		
of_AddHead	Yes		
of_AddTail	Yes		
of_Count	Yes		
of_Destroy	Yes		
of_Get	Yes		
of_IsCompareObjectAssigned	Yes		
of_IsEmpty	Yes		
of_Remove	Yes		
of_RemoveHead	Yes		
of_RemoveTail	Yes		
of_SetCompare	Yes		

n_cst_linkedlistbase

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Event Name	Supported	Limitations	Notes
Destructor	Yes		

n_cst_linkedlistbase

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Instance Variable Name	Supported

inv_compare	Yes
inv_head	Yes
inv_nil	Yes
inv_tail	Yes

n_cst_linkedlistnode

[Ancestor](#)



Description

List instance object.

Ancestry

```
pfc_n_base (n_base)
--> pfc_n_cst_nodebase (n_cst_nodebase)
--> pfc_n_cst_linkedlistnode (n_cst_linkedlistnode)
```

Library

```
PFCAPSRV.PBL
PFEAPSRV.PBL
```

n_cst_linkedlistnodecompare

[Ancestor](#)



Description

Node comparison object. This object can handle key comparison for simple data types but if your list's key items contain some other data type, you must create a customized n_cst_linkedlistnodecompare descendant to handle comparison processing.

Ancestry

```
pfc_n_base (n_base)
--> pfc_n_cst_nodecomparebase (n_cst_nodecomparebase)
--> pfc_n_cst_linkedlistnodecompare (n_cst_linkedlistnodecompare)
```

Library

```
PFCAPSRV.PBL
PFEAPSRV.PBL
```

n_cst_list

[Ancestor](#) | [Functions](#) | [Instance Variables](#)



Description

List processing object. You can implement either a sorted or unsorted list, optionally allowing duplicates. Use this object for simple linked lists and sorted linked lists.

Ancestry

```
pfc_n_base (n_base)
--> pfc_n_cst_linkedlistbase (n_cst_linkedlistbase)
--> pfc_n_cst_list (n_cst_list)
```

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

n_cst_list

[Ancestor](#) | [Functions](#) | [Instance Variables](#)



Function Name	Supported	Limitations	Notes
of_Add	Yes		
of_AddHead	Yes		
of_AddTail	Yes		
of_Find	Yes		
of_IsDuplicatesAllowed	Yes		
of_IsInList	Yes		
of_IsSorted	Yes		
of_Remove	Yes		
of_RemoveHead	Yes		
of_RemoveTail	Yes		
of_SetDuplicatesAllowed	Yes		
of_SetSorted	Yes		

n_cst_list

[Ancestor](#) | [Functions](#) | [Instance Variables](#)



Instance Variable Name	Supported
ib_duplicatesallowed	Yes
ib_sorted	Yes

n_cst_luw

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)

**Description**

Logical unit of work service. PFC uses n_cst_luw to coordinate and perform updates on a control or a group of controls.

Ancestry

pfc_n_base (n_base) -> pfc_n_cst_luw (n_cst_luw)

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

n_cst_luw[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)

Function Name	Supported	Limitations	Notes
of_AcceptText	Yes		
of_assist	Yes		
of_BeginTran	Yes		
of_DBError	Yes		
of_EndTran	Yes		
of_EndTranError	Yes		
of_getclassnames	Yes		
of_GetType	Yes		
of_GetTypeToProcess	Yes		
of_GetUpdateRequestor	Yes		
of_IsAlwaysValidate	Yes		
of_IsSelfUpdatingObject	Yes	The function now checks if passed-in object is self-updating by triggering its pfc_descendant event and see if successful.	The PFC function script checks the existence of of_update function in passed-in object using ClassDefinition.
of_PostUpdate	Yes	Unable to check if passed-in objects have of_PostUpdate function before processing post update.	
of_PreUpdate	Yes		
of_Save	Yes		
of_SetAlwaysValidate	Yes		
of_SetDBErrorMsg	Yes		
of_SetRequestor	Yes		
of_SetTypeToProcess	Yes		
of_SetUpdateRequestor	Yes		
of_Update	Yes	Unable to check if passed-in objects have of_Update function before processing update.	
of_UpdatePrep	Yes	Unable to check if passed-in objects have of_UpdatePrep function before processing update preparation.	
of_UpdatesPending	Yes	Unable to check if	

		passed-in objects have of_UpdatesPending function before checking for update pending.	
of_Validation	Yes	Unable to check if passed-in objects have of_Validation function before processing validation.	

n_cst_luw

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Event Name	Supported	Limitations	Notes
Constructor	Yes	The established identifier is not composed of the application running time, but the current system time.	The event script establishes a unique identifier for the current instance of n_cst_luw.

n_cst_luw

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Instance Variable Name	Supported
ALL_OBJECTS	Yes
ib_accepttext	Yes
ib_alwaysvalidate	Yes
ib_resetflag	Yes
inv_dberrorattrib	Yes
inv_metaclass	Yes
ipo_pendingupdates[]	Yes
ipo_requestor	Yes
ipo_updaterequestor	Yes
is_instancename	Yes
is_typetoprocess	Yes

n_cst_lvsvr

[Ancestor](#) | [Functions](#) | [Instance Variables](#)



Description

ListView base service.

Ancestry

pf_c_n_base (n_base) -> pf_c_n_cst_lvsv (n_cst_lvsv)

Descendants

[n_cst_lvsv_datasource](#)
[n_cst_lvsv_sort](#)

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

n_cst_lvsv

[Ancestor](#) | [Functions](#) | [Instance Variables](#)



Function Name	Supported	Limitations	Notes
of_FindNext	Yes		
of_FindSelected	Yes		
of_getdelimiter	Yes		
of_GetDisplayItem	Yes		
of_GetDisplayUnits	Yes		
of_setdelimiter	Yes		
of_SetDisplayItem	Yes		
of_SetDisplayUnits	Yes		
of_SetRequestor	Yes		

n_cst_lvsv

[Ancestor](#) | [Functions](#) | [Instance Variables](#)



Instance Variable Name	Supported
is_delimiter	Yes
is_displayitem	Yes
is_displayunits	Yes
ilv_requestor	Yes

n_cst_lvsv_datasource

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Description

ListView data access object. Use this object to display data in a u_lvs control and perform actions on that data.

Ancestry

pf_c_n_base (n_base)
--> pf_c_n_cst_lvsv (n_cst_lvsv)

--> pfc_n_cst_lvsvr_datasource (n_cst_lvsvr_datasource)

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

n_cst_lvsvr_datasource

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Function Name	Supported	Limitations	Notes
of_CanUndo	Yes		
of_ClearUndo	Yes		
of_ConfirmDelete	Yes		
of_ConfirmOnDelete	Yes		
of_ConvertToRow	Yes	Unable to populate the storage DataStore through SQL.	
of_DecodeKey	No		The function is deleted.
of_DeleteItem	Yes		
of_EncodeKey	No		The function is deleted.
of_FormatData	Yes		
of_GetAttributes	Yes		
of_GetColumnInfo	Yes		
of_GetDataObject	Yes		
of_GetDataRow	Yes		
of_GetDataSource	Yes		
of_GetIndex	Yes		
of_GetLabelColumn	Yes		
of_GetMethod	Yes		
of_GetOverlayPictureColumn	Yes		
of_GetPictureColumn	Yes		
of_GetStatePictureColumn	Yes		
of_GetTransObject	Yes		
of_GetXPosColumn	Yes		
of_GetYPosColumn	Yes		
of_InsertItem	Yes		
of_IsConfirmOnDelete	Yes		
of_Refresh	Yes		
of_Register	Yes	Do not support using SQL statements as the data source.	

of_RegisterDataSource	No		Comment entire function code.
of_RegisterReportColumn	Yes		
of_Reset	Yes		
of_ResetList	Yes		
of_ResetUpdate	Yes		
of_Retrieve	Yes	Do not support to register and retrieve through Transactions other than the default system SQLCA.	
of_SetCache	Yes		
of_SetConfirmOnDelete	Yes		
of_SetItemAttributes	Yes	Do not support LV item OverlayPictureIndex, ItemX, ItemY properties.	
of_SetOverlayPictureColumn	Yes		
of_SetPictureColumn	Yes		
of_SetStatePictureColumn	Yes		
of_SetUndo	Yes		
of_SetXPosColumn	Yes		
of_SetYPosColumn	Yes		
of_UnRegister	Yes		
of_UnRegisterReportColumn	Yes		
of_Update	Yes		

n_cst_lvsvr_datasource

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Event Name	Supported	Limitations	Notes
Constructor	Yes		
Destructor	Yes		
pfc_DeleteItem	Yes		
pfc_EndLabelEdit	Yes		
pfc_InsertItem	Yes		
pfc_Refresh	Yes		
pfc_RefreshItem	Yes		
pfc_SetItemAttributes	Yes	Unable to set LV item OverlayPictureIndex, ItemX and ItemY property.	

pfc_Undo	Yes		
pfc_UndoDelete	Yes		
pfc_UndoEdit	Yes		
pfc_UndoInsert	Yes		

n_cst_lvsvr_datasource

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Instance Variable Name	Supported
CACHE_ID	Yes
ib_confirmdelete	Yes
ib_isrefreshing	Yes
ib_isundoing	Yes
ib_undo	Yes
il_undodeletehandle[]	Yes
il_undoedithandle	Yes
il_undoinserthandle	Yes
ilvi_undodeleteitem[]	Yes
inv_cache	Yes
is_dataobject	Yes
is_pfckey	Yes
is_undoeditlabeltext	Yes
is_undotype	Yes
inv_attrib	Yes
inv_colattrib[]	Yes
UNDO_DELETE	Yes
UNDO_EDIT	Yes
UNDO_INSERT	Yes

n_cst_lvsvr_sort

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Description

ListView sort service. ListView sorting applies to detail view only.

Ancestry

```
pfc_n_base (n_base)
--> pfc_n_cst_lvsvr (n_cst_lvsvr)
--> pfc_n_cst_lvsvr_sort (n_cst_lvsvr_sort)
```

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

n_cst_lvsvr_sort

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Function Name	Supported	Limitations	Notes
of_GetExclude	Yes		
of_IsColumnHeader	Yes		
of_IsExclude	Yes		
of_SetColumnHeader	Yes		
of_SetExclude	Yes		

n_cst_lvsvr_sort

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Event Name	Supported	Limitations	Notes
pfc_ColumnClick	Yes		
pfc_Sort	Yes		

n_cst_lvsvr_sort

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Instance Variable Name	Supported
ib_columnheadersort	Yes
ie_currentsort	Yes
ii_currentsortcol	Yes
is_excludecolumns[]	Yes

n_cst_menu

[Ancestor](#) | [Functions](#)



Description

Menu service object. The m_master of _SendMessage function, the preference service, and the w_toolbars dialog box use n_cst_menu functions to access menu and frame information.

Ancestry

pfc_n_base (n_base) -> pfc_n_cst_menu (n_cst_menu)

Library

PFCWNSRV.PBL
PFEWNSRV.PBL

n_cst_menu

[Ancestor](#) | [Functions](#)



Function Name	Supported	Limitations	Notes
of_GetAllToolbarIndex	Yes		
of_GetMDIFrame	Yes		
of_GetMenuReference	Yes		
of_IsInArray	Yes		
of_SendMessage	Yes		
of_ToolbarExists	Yes		
of_TriggerEvent	Yes		

n_cst_mru

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Description

Most recently used (MRU) object service. Use this object to add MRU capabilities to your application's File menu.

Ancestry

pfc_n_base (n_base) -> pfc_n_cst_mru (n_cst_mru)

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

n_cst_mru

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Function Name	Supported	Limitations	Notes
of_AddItem	Yes		
of_AddMenubarLine	Yes		
of_Filter	Yes		
of_FindItem	Yes		
of_GetItem	Yes		
of_GetRegistered	Yes		
of_GetUserIniFile	Yes		
of_GetUserKey	Yes		

of_IsRegistered	Yes		
of_Load	Yes		
of_Read	Yes		
of_ReadKeys	Yes		
of_Register	Yes		
of_Reset	Yes		
of_Restore	Yes		
of_Save	Yes		
of_SetDelimiter	Yes		
of_SetItemCount	Yes		
of_SetUseRegistry	Yes		
of_SetUserIniFile	Yes		
of_SetUserKey	Yes		
of_Sort	Yes		
of_UnRegister	Yes		
of_UpdateVisuals	Yes		
of_Write	Yes		
of_WriteKeys	Yes		

n_cst_mru

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Event Name	Supported	Limitations	Notes
Constructor	Yes		
Destructor	Yes		
pfc_Close	Yes		
pfc_Decompile	Yes		
pfc_Encode	Yes		
pfc_Open	Yes		

n_cst_mru

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Instance Variable Name	Supported
ib_useregistry	Yes
ids_mrukeys	Yes
ii_currentmrucount	Yes
ii_mruiitemcount	Yes

is_delimiter	Yes
is_menubarline	Yes
is_menuitemstring	Yes
is_mrucountkey	Yes
is_mruregisteredsection	Yes
is_mruiemkey	Yes
inv_register[]	Yes
is_mrusection	Yes
is_userinifile	Yes
is_userke	Yes

n_cst_nodebase

[Ancestor](#) | [Functions](#) | [Instance Variables](#)



Description

List instance ancestor object. PFC objects use this object as the ancestor for list nodes.

Ancestry

pf_c_n_base (n_base) --> pf_c_n_cst_nodebase (n_cst_nodebase)

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

n_cst_nodebase

[Ancestor](#) | [Functions](#) | [Instance Variables](#)



Function Name	Supported	Limitations	Notes
of_CopyTo	Yes		
of_GetData	Yes		
of_GetKey	Yes		
of_GetNext	Yes		
of_GetPrev	Yes		
of_SetData	Yes		
of_SetKey	Yes		
of_SetNext	Yes		
of_SetPrev	Yes		

n_cst_nodebase

[Ancestor](#) | [Functions](#) | [Instance Variables](#)



Instance Variable Name	Supported
ia_data	Yes
ia_key	Yes
inv_next	Yes
inv_prev	Yes

n_cst_nodecomparebase

[Ancestor](#) | [Functions](#) | [Instance Variables](#)



Description

Node comparison ancestor object. Extend this object's descendants to implement site-specific comparison processing.

Ancestry

```

pfc_n_base (n_base)
--> pfc_n_cst_nodecomparebase (n_cst_nodecomparebase)

```

Library

```

PFCAPSRV.PBL
PFEAPSRV.PBL

```

n_cst_nodecomparebase

[Ancestor](#) | [Functions](#) | [Instance Variables](#)



Function Name	Supported	Limitations	Notes
of_Compare	Yes		

n_cst_nodecomparebase

[Ancestor](#) | [Functions](#) | [Instance Variables](#)



Instance Variable Name	Supported
EQUAL	Yes
GREATERTHAN	Yes
LESSTHAN	Yes

n_cst_numerical

[Ancestor](#) | [Functions](#)



Description

Binary number service. This service provides functions that you can call to access binary data.

Ancestry

pf_c_n_base (n_base) -> pf_c_n_cst_numerical (n_cst_numerical)

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

n_cst_numerical

[Ancestor](#) | [Functions](#)



Function Name	Supported	Limitations	Notes
of_Binary	Yes		
of_BitwiseAnd	Yes		
of_BitwiseNot	Yes		
of_BitwiseOr	Yes		
of_BitwiseXor	Yes		
of_Decimal	Yes		
of_GetBit	Yes		

n_cst_queue

[Ancestor](#) | [Functions](#)

**Description**

Queue-processing object. Use this object to handle list processing for FIFO lists (queues).

Ancestry

pf_c_n_base (n_base)
--> pf_c_n_cst_linkedlistbase (n_cst_linkedlistbase)
--> pf_c_n_cst_queue (n_cst_queue)

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

n_cst_queue

[Ancestor](#) | [Functions](#)



Function Name	Supported	Limitations	Notes
of_Get	Yes		
of_Put	Yes		

n_cst_resize

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Description

Resize service object.

Ancestry

pfc_n_base (n_base) --> pfc_n_cst_resize (n_cst_resize)

Library

PFCWNSRV.PBL
PFEWNSRV.PBL

n_cst_resize

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Function Name	Supported	Limitations	Notes
of_GetMinMaxPoints	Yes	Cannot handle RoundRectangle or Oval.	
of_Register	Yes	Cannot register RoundRectangle or Oval.	
of_Resize	Yes	Cannot resize RoundRectangle or Oval, since these controls are not supported.	
of_SetMinSize	Yes		
of_SetOrigSize	Yes		
of_TypeOf	Yes		
of_UnRegister	Yes		

n_cst_resize

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Event Name	Supported	Limitations	Notes
pfc_Resize	Yes		

n_cst_resize

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Instance Variable Name	Supported
FIXEDRIGHT	Yes
FIXEDBOTTOM	Yes

FIXEDRIGHTBOTTOM	Yes
SCALE	Yes
SCALERIGHT	Yes
SCALEBOTTOM	Yes
SCALERIGHTBOTTOM	Yes
FIXEDRIGHT_SCALEBOTTOM	Yes
FIXEDBOTTOM_SCALERIGHT	Yes
DRAGOBJECT	Yes
LINE	Yes
OVAL	Yes
RECTANGLE	Yes
ROUNDRECTANGLE	Yes
MDICLIENT	Yes
ics_dragobject	Yes
ics_line	Yes
ics_oval	Yes
ics_rectangle	Yes
ics_roundrectangle	Yes
ics_mdiclient	Yes
il_parentminimumwidth	Yes
il_parentminimumheight	Yes
il_parentprevwidth	Yes
il_parentprevheight	Yes
ii_rounding	Yes
inv_registered[]	Yes
istr_registered[]	Yes

n_cst_security

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Description

Security service. To use the ACF security system, you must first define users and groups, then associate them with windows and controls.

Ancestry

pfc_n_base (n_base) -> pfc_n_cst_security (n_cst_security)

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

n_cst_security

Function Name	Supported	Limitations	Notes
of_AddObject	Yes	Unable to perform security scan.	Comment ImportString function.
of_FindEntry	Yes		
of_GetPermissions	Yes		
of_GetTag	Yes		
of_GetType	Yes	Do not support graphic controls like Graph, Oval, RoundedRectangle, OLECustomControl, OLEControl etc.	
of_InitScanProcess	Yes	Unable to perform security scan.	Comment ImportString function.
of_InitSecurity	Yes		
of_LoadSecurity	Yes		
of_ScanControlArray	Yes		
of_ScanDataWindow	Yes		
of_ScanWindow	Yes		
of_SetControlArray	Yes		
of_SetControlStatus	Yes	Do not support Oval.	
of_SetDatawindowColumns	Yes		
of_SetMenu	Yes		
of_SetMenuStatus	Yes		
of_SetSecurity	No		Comment entire function script, and return FALSE.
of_SetState	Yes		

n_cst_security

Event Name	Supported	Limitations	Notes
Constructor	Yes		
Destructor	Yes		

n_cst_security

Instance Variable Name	Supported
INVISIBLE	Yes
ENABLE	Yes
DISABLE	Yes
NOTSET	Yes
ids_items	Yes
ids_apps	Yes
ids_groups	Yes
il_numberofrows	Yes
is_app	Yes
is_userID	Yes
is_defaultgroup	Yes
ii_numgroups	Yes
is_disabledborder	Yes
ib_initsecurity	Yes
itr_trans	Yes
ib_precache	Yes
is_currfilter	Yes
is_enabledborder	Yes
ib_initscanning	Yes
ii_libcnt	Yes
is_keyword	Yes
is_separator	Yes
is_liblist[]	Yes
ids_updates	Yes
ids_info	Yes
inv_string	Yes

n_cst_selection

[Ancestor](#) | [Functions](#) | [Instance Variables](#)



Description

Selection service. This service provides functions that you can call to display the w_selection dialog box, which allows users to choose a row, which is then passed back to your application.

Ancestry

pfc_n_base (n_base) -> pfc_n_cst_selection (n_cst_selection)

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

n_cst_selection

[Ancestor](#) | [Functions](#) | [Instance Variables](#)



Function Name	Supported	Limitations	Notes
of_Open	Yes		

n_cst_selection

[Ancestor](#) | [Functions](#) | [Instance Variables](#)



Instance Variable Name	Supported
is_defaulttitle	Yes

n_cst_sql

[Ancestor](#) | [Functions](#)



Description

SQL parsing service. This service provides functions that you can call to assemble and parse SQL statements.

Ancestry

pf_c_n_base (n_base) -> pf_c_n_cst_sql (n_cst_sql)

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

n_cst_sql

[Ancestor](#) | [Functions](#)



Function Name	Supported	Limitations	Notes
of_Assemble	Yes		
of_Parse	Yes		

n_cst_stack

[Ancestor](#) | [Functions](#)



Description

Stack processing object. Use this object to handle list processing for LIFO lists (stacks).

Ancestry

pfc_n_base (n_base)
 -> pfc_n_cst_linkedlistbase (n_cst_linkedlistbase)
 -> pfc_n_cst_stack (n_cst_stack)

Library

PFCAPSRV.PBL
 PFEAPSRV.PBL

n_cst_stack

[Ancestor](#) | Functions



Function Name	Supported	Limitations	Notes
of_Pop	Yes		
of_Push	Yes		

n_cst_string

[Ancestor](#) | [Functions](#)



Description

String parsing service. This service provides functions that you can call to manipulate string data.

Ancestry

pfc_n_base (n_base) -> pfc_n_cst_string (n_cst_string)

Library

PFCAPSRV.PBL
 PFEAPSRV.PBL

n_cst_string

[Ancestor](#) | Functions



Function Name	Supported	Limitations	Notes
of_ArrayToString	Yes		
of_CountOccurrences	Yes		
of_GetKeyValue	Yes		
of_GetToken	Yes		
of_GlobalReplace	Yes		
of_IsAlpha	Yes		
of_IsAlphaNum	Yes		
of_IsArithmeticOperator	Yes		
of_IsComparisonOperator	Yes		
of_IsEmpty	Yes		

of_IsFormat	Yes		
of_IsLower	Yes		
of_IsPrintable	Yes		
of_IsPunctuation	Yes		
of_IsSpace	Yes		
of_IsUpper	Yes		
of_IsWhiteSpace	Yes		
of_LastPos	Yes		
of_LeftTrim	Yes		
of_PadLeft	Yes		
of_PadRight	Yes		
of_ParseToArray	Yes		
of_Quote	Yes		
of_RemoveNonPrint	Yes		
of_RemoveWhiteSpace	Yes		
of_RightTrim	Yes		
of_SetKeyValue	Yes		
of_Trim	Yes		
of_WordCap	Yes		

n_cst_tree

[Ancestor](#) | [Functions](#) | [Instance Variables](#)



Description

Balanced binary tree object. Use this object to handle list processing in a balanced binary tree.

Ancestry

pf_c_n_base (n_base) -> pf_c_n_cst_tree (n_cst_tree)

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

n_cst_tree

[Ancestor](#) | [Functions](#) | [Instance Variables](#)



Function Name	Supported	Limitations	Notes
of_Add	Yes		
of_AddNode	Yes		
of_Balance	Yes		

of_BalanceLeft	Yes		
of_BalanceRight	Yes		
of_Count	Yes		
of_Create	Yes		
of_DeINode	Yes		
of_Destroy	Yes		
of_Find	Yes		
of_Get	Yes		
of_GetRoot	Yes		
of_Remove	Yes		
of_Search	Yes		
of_SetCompare	Yes		
of_Traverse	Yes		

n_cst_tree

[Ancestor](#) | [Functions](#) | [Instance Variables](#)



Instance Variable Name	Supported
inv_compare	Yes
inv_removednode	Yes
inv_root	Yes
inv_shiftnode	Yes

n_cst_treenode

[Ancestor](#) | [Functions](#) | [Instance Variables](#)



Description

Tree list instance object. Use n_cst_treenode to create nodes for use with n_cst_tree.

Ancestry

pfc_n_base (n_base)
 -> pfc_n_cst_nodebase (n_cst_nodebase)
 -> pfc_n_cst_treenode (n_cst_treenode)

Library

PFCAPSRV.PBL
 PFEAPSRV.PBL

n_cst_treenode

[Ancestor](#) | [Functions](#) | [Instance Variables](#)



Function Name	Supported	Limitations	Notes
of_CopyTo	Yes		
of_GetBalance	Yes		
of_SetBalance	Yes		

n_cst_treenode

[Ancestor](#) | [Functions](#) | [Instance Variables](#)



Instance Variable Name	Supported
ii_balance	Yes

n_cst_treenodecompare

[Ancestor](#)



Description

Tree node comparison object. N_cst_tree uses this object to compare values before placement in a tree list. Use this object for customized comparisons with tree lists.

Ancestry

pfc_n_base (n_base)
 -> pfc_n_cst_nodecomparebase (n_cst_nodecomparebase)
 -> pfc_n_cst_treenodecompare (n_cst_treenodecompare)

Library

PFCAPSRV.PBL
 PFEAPSRV.PBL

n_cst_trregistration

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Description

Transaction registration service. Use this service to keep track of transactions when your application uses more than one transaction.

Ancestry

pfc_n_base (n_base) --> pfc_n_cst_trregistration (n_cst_trregistration)

Library

PFCAPSRV.PBL
 PFEAPSRV.PBL

n_cst_trregistration

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Function Name	Supported	Limitations	Notes
of_Destroy	Yes		
of_GetByName	Yes		
of_GetCount	Yes		
of_GetRegistered	Yes		
of_IsAllowSqlcaDestroy	Yes		
of_IsDestructorDestroy	Yes		
of_IsRegistered	Yes		
of_Register	Yes		
of_SetAllowSqlcaDestroy	Yes		
of_SetDestructorDestroy	Yes		
of_UnRegister	Yes		

n_cst_trregistration

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Event Name	Supported	Limitations	Notes
Destructor	Yes		

n_cst_trregistration

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Instance Variable Name	Supported
ib_allowsqcadestroy	Yes
ib_destructordestroy	Yes
inv_trans[]	Yes
ii_count	Yes

n_cst_tvsvr

[Ancestor](#) | [Functions](#) | [Instance Variables](#)



Description

TreeView base service.

Ancestry

pfc_n_base (n_base) -> pfc_n_cst_tvsvr (n_cst_tvsvr)

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

n_cst_tvsvr

[Ancestor](#) | [Functions](#) | [Instance Variables](#)



Function Name	Supported	Limitations	Notes
of_FindFirstItemLevel	Yes		
of_FindItem	Yes		
of_GetDataAny	Yes		
of_GetDataNumeric	Yes		
of_GetDataString	Yes		
of_getdelimiter	Yes		
of_GetDisplayItem	Yes		
of_GetDisplayUnits	Yes		
of_SearchChild	Yes		
of_setdelimiter	Yes		
of_SetDisplayItem	Yes		
of_SetDisplayUnits	Yes		
of_SetRequestor	Yes		

n_cst_tvsvr

[Ancestor](#) | [Functions](#) | [Instance Variables](#)



Instance Variable Name	Supported
il_queue[]	Yes
is_delimiter	Yes
is_displayitem	Yes
is_displayunits	Yes
itv_requestor	Yes

n_cst_tvsvr_levelsource

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Description

TreeView data access object. Use this object to display data in a u_tvsv control and perform actions on that data.

Ancestry

```

pfc_n_base (n_base)
-> pfc_n_cst_tvsvr (n_cst_tvsvr)
-> pfcn_n_cst_tvsvr_levelsource (n_cst_tvsvr_levelsource)

```

Library

PFCAPSRV.PBL
PFEAPSRV.PBL

n_cst_tvsvr_levelsource

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Function Name	Supported	Limitations	Notes
of_CanUndo	Yes		
of_ClearUndo	Yes		
of_ConfirmDelete	Yes		
of_ConfirmOnDelete	Yes		
of_ConvertToRow	Yes	Unable to populate the storage DataStore through SQL.	
of_DecodeKey	No		Comment entire function code.
of_DeleteItem	Yes		
of_DiscardChildren	Yes		
of_EncodeKey	No		Comment entire function code.
of_GetArgs	Yes	If associated DataStore has 2 or more than 2 rows of identical data, the function may not execute correctly.	
of_GetCustomUpdate	Yes		
of_GetDataObject	Yes		
of_GetDataRow	Yes	If associated DataStore has 2 or more than 2 rows of identical data, the function may not execute correctly.	
of_GetDataSource	Yes		
of_GetDeleteStyle	Yes		
of_GetHandle	Yes		
of_GetLabelColumn	Yes		
of_GetLevel	Yes	Unable to dynamically create DataStore object.	
of_GetLevelAttributes	Yes		
of_GetLevelCount	Yes		
of_GetMethod	Yes		
of_GetObjects	Yes		

of_GetOverlayPictureColumn	Yes		
of_GetPictureColumn	Yes		
of_GetRetrieveArgs	Yes		
of_GetSelectedPictureColumn	Yes		
of_GetStatePictureColumn	Yes		
of_GetTransObject	Yes		
of_GetUpdateStyle	Yes		
of_InsertItem	Yes	InsertItemSort is replaced with InsertItemLast.	
of_IsConfirmOnDelete	Yes		
of_IsRecursiveLevel	Yes		
of_ParseArgs	Yes		
of_ParseCols	Yes		
of_Register	Yes	Unable to register a disk file or a dynamically created DW object as the data source.	
of_RegisterDataSource	Yes		
of_RemoveChildren	Yes		
of_Reset	Yes		
of_ResetTree	Yes		
of_ResetUpdate	Yes		
of_Retrieve	Yes		
of_SetCache	Yes		
of_SetConfirmOnDelete	Yes		
of_SetCustomUpdate	Yes		
of_SetDeleteStyle	Yes		
of_SetItemAttributes	Yes		
of_SetOverlayPictureColumn	Yes		
of_SetPictureColumn	Yes		
of_SetRecursive	Yes		
of_SetSelectedPictureColumn	Yes		
of_SetStatePictureColumn	Yes		
of_SetUndo	Yes		
of_SetUpdateStyle	Yes		
of_UnRegister	Yes		
of_Update	Yes		
of_UpdateCustom	Yes		

n_cst_tvsvr_levelsource

Event Name	Supported	Limitations	Notes
Constructor	Yes		
Destructor	Yes		
pfc_DeleteItem	Yes		
pfc_EndLabelEdit	Yes		
pfc_InsertItem	Yes		
pfc_ItemExpanding	Yes		
pfc_RefreshItem	Yes		
pfc_RefreshLevel	Yes		
pfc_SetItemAttributes	Yes		
pfc_Undo	Yes		
pfc_UndoDelete	Yes	If associated DataStore has 2 or more than 2 rows of identical data, the function may not execute correctly.	
pfc_UndoEdit	Yes		
pfc_UndoInsert	Yes		

n_cst_tvsvr_levelsource

Instance Variable Name	Supported
BOTTOMUP	Yes
BOTTOMUP_TOPDOWN	Yes
CACHE_ID	Yes
CUSTOM	Yes
DELETE_ROWS	Yes
DISCARD_ROWS	Yes
ib_confirmdelete	Yes
ib_isrefreshing	Yes
ib_isundoing	Yes
ib_undo	Yes
ii_customupdate	Yes
ii_updatestyle	Yes
il_undodeletehandle	Yes
il_undodeleteparenthandle	Yes

il_undoedithandle	Yes
il_undoinserthandle	Yes
inv_attrib[]	Yes
inv_cache	No (The caching functionality is re-implemented in ACF to boost performance.)
is_pfckey	Yes
is_undoeditlabeltext	Yes
is_undotype	Yes
itvi_undodeleteitem	Yes
TOPDOWN	Yes
TOPDOWN_BOTTOMUP	Yes
UNDO_DELETE	Yes
UNDO_EDIT	Yes
UNDO_INSERT	Yes

n_cst_winsrv

[Ancestor](#) | [Functions](#) | [Instance Variables](#)



Description

N_cst_winsrv is the base window services object and serves as the ancestor object for all Window services. Use the functions in this user object to obtain basic information about a DataWindow object and its contents.

Ancestry

pfc_n_base (n_base) -> pfc_n_cst_winsrv (n_cst_winsrv)

Library

PFCWNSRV.PBL
PFEWNSRV.PBL

n_cst_winsrv

[Ancestor](#) | [Functions](#) | [Instance Variables](#)



Function Name	Supported	Limitations	Notes
of_Center	Yes		
of_SetRequestor	Yes		

n_cst_winsrv

[Ancestor](#) | [Functions](#) | [Instance Variables](#)



Instance Variable Name	Supported
------------------------	-----------

iw_requestor

Yes

n_cst_winsrv_preference

[Ancestor](#) | [Functions](#) | [Instance Variables](#)



Description

Window preference service.

Ancestry

pfc_n_base (n_base)
 -> pfc_n_cst_winsrv (n_cst_winsrv)
 -> pfc_n_cst_winsrv_preference (n_cst_winsrv_preference)

Library

PFCWNSRV.PBL
 PFEWNSRV.PBL

n_cst_winsrv_preference

[Ancestor](#) | [Functions](#) | [Instance Variables](#)



Function Name	Supported	Limitations	Notes
of_GetMenuItems	Yes		
of_GetToolBarItemOrder	Yes		
of_GetToolBarItemSpace	Yes		
of_GetToolBarItemVisible	Yes		
of_GetToolbars	Yes		
of_GetToolBarTitles	Yes		
of_GetWindow	Yes		
of_Restore	Yes	Unable to restore toolbar values.	
of_RestoreMenu	Yes	Unable to manipulate Menu ToolbarItemSpace property.	
of_RestorePositiveNumber	Yes		
of_Save	Yes	Unable to save toolbar values.	
of_SaveMenu	Yes	Unable to manipulate Menu ToolbarItemSpace property.	
of_SetMenuItems	Yes		
of_SetPosSize	Yes		
of_SetToolBarItemOrder	Yes		
of_SetToolBarItemSpace	Yes		
of_SetToolBarItemVisible	Yes		

of_SetToolbars	Yes		
of_SetToolbarTitles	Yes		
of_SetWindow	Yes		

n_cst_winsrv_preference

[Ancestor](#) | [Functions](#) | [Instance Variables](#)



Instance Variable Name	Supported
ib_menuitems	Yes
ib_toolbaritemorder	Yes
ib_toolbaritemspace	Yes
ib_toolbaritemvisible	Yes
ib_toolbars	Yes
ib_toolbartitles	Yes
ib_window	Yes
ii_normalstate_height	Yes
ii_normalstate_width	Yes
ii_normalstate_x	Yes
ii_normalstate_y	Yes

n_cst_winsrv_sheetmanager

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Description

Sheet management service. Enable the sheet management service for all multiple-sheet MDI applications.

Ancestry

pfc_n_base (n_base)
 -> pfc_n_cst_winsrv (n_cst_winsrv)
 -> pfc_n_cst_winsrv_sheetmanager (n_cst_winsrv_sheetmanager)

Library

PFCWNSRV.PBL
 PFEWNSRV.PBL

n_cst_winsrv_sheetmanager

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Function Name	Supported	Limitations	Notes
of_GetCurrentState	Yes		

of_GetSheetCount	Yes		
of_GetSheets	Yes		
of_GetSheetsByClass	Yes		
of_GetSheetsByTitle	Yes		
of_SetCurrentState	Yes		
of_SetRequestor	Yes		

n_cst_winsrv_sheetmanager

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Event Name	Supported	Limitations	Notes
Constructor	Yes		
pfc_Cascade	Yes		
pfc_Layer	Yes		
pfc_MinimizeAll	Yes		
pfc_TileHorizontal	Yes		
pfc_TileVertical	Yes		
pfc_UndoArrange	Yes		

n_cst_winsrv_sheetmanager

[Ancestor](#) | [Functions](#) | [Events](#) | [Instance Variables](#)



Instance Variable Name	Supported
ie_arrange	Yes
inv_sheet[]	Yes

Preserved Objects



ACF Preserved Objects

Preserved objects are those extracted from PFC, with the original source code of the PFC objects being entirely commented. Preserved objects are "shell" objects having empty functions and events whose names and arguments are kept the same as the PFC objects.

Preserved objects help to keep ACF compliant with PFC. Also, while un-extracted objects may never be supported, the preserved objects are likely to be supported in subsequent versions of ACF. They are preserved for ACF future release: the commented script for a preserved object will be restored as soon as the object can be supported.

The following table lists the ACF preserved objects by library.

Library	Object Name
pfcapsrv.pbl	f_SetFilesrv
pfcapsrv.pbl	f_SetPlatform
pfcapsrv.pbl	n_cst_filesrv
pfcapsrv.pbl	n_cst_filesrvaix
pfcapsrv.pbl	n_cst_filesrvhpux
pfcapsrv.pbl	n_cst_filesrvsol2
pfcapsrv.pbl	n_cst_filesrvunicode
pfcapsrv.pbl	n_cst_filesrvwin32
pfcapsrv.pbl	n_cst_inifile
pfcapsrv.pbl	n_cst_platform
pfcapsrv.pbl	n_cst_platformaix
pfcapsrv.pbl	n_cst_platformhpux
pfcapsrv.pbl	n_cst_platformsol2
pfcapsrv.pbl	n_cst_platformunicode
pfcapsrv.pbl	n_cst_platformwin32
pfcapsrv.pbl	n_cst_tvsvr_print
pfcdwsrv.pbl	n_cst_dssrv_printpreview
pfcdwsrv.pbl	n_cst_dssrv_report
pfcdwsrv.pbl	n_cst_dwsrv_printpreview
pfcdwsrv.pbl	n_cst_dwsrv_querymode
pfcdwsrv.pbl	n_cst_dwsrv_report
pfcdwsrv.pbl	n_cst_dwsrv_resize

f_SetFilesrv



This is a preserved object. The object's entire script has been commented when it is extracted from PFC into ACF. Only the object's interface - the definitions of its functions and events - are preserved.

Preserved objects are for the purpose of ACF upgrading. Please refer to [Preserved Objects](#) for more information.

f_SetPlatform



This is a preserved object. The object's entire script has been commented when it is extracted from PFC into ACF. Only the object's interface - the definitions of its functions and events - are preserved.

Preserved objects are for the purpose of ACF upgrading. Please refer to [Preserved Objects](#) for more information.

n_cst_dssrv_printpreview



This is a preserved object. The object's entire script has been commented when it is extracted from PFC into ACF. Only the object's interface - the definitions of its functions and events - are preserved.

Preserved objects are for the purpose of ACF upgrading. Please refer to [Preserved Objects](#) for more information.

n_cst_dssrv_report



This is a preserved object. The object's entire script has been commented when it is extracted from PFC into ACF. Only the object's interface - the definitions of its functions and events - are preserved.

Preserved objects are for the purpose of ACF upgrading. Please refer to [Preserved Objects](#) for more information.

n_cst_dwsrv_printpreview



This is a preserved object. The object's entire script has been commented when it is extracted from PFC into ACF. Only the object's interface - the definitions of its functions and events - are preserved.

Preserved objects are for the purpose of ACF upgrading. Please refer to [Preserved Objects](#) for more information.

n_cst_dwsrv_querymode



This is a preserved object. The object's entire script has been commented when it is extracted from PFC into ACF. Only the object's interface - the definitions of its functions and events - are preserved.

Preserved objects are for the purpose of ACF upgrading. Please refer to [Preserved Objects](#) for more information.

n_cst_dwsrv_report



This is a preserved object. The object's entire script has been commented when it is extracted from PFC into ACF. Only the object's interface - the definitions of its functions and events - are preserved.

Preserved objects are for the purpose of ACF upgrading. Please refer to [Preserved Objects](#) for more information.

n_cst_filesrv



This is a preserved object. The object's entire script has been commented when it is extracted from PFC into ACF. Only the object's interface - the definitions of its functions and

events - are preserved.

Preserved objects are for the purpose of ACF upgrading. Please refer to [Preserved Objects](#) for more information.

n_cst_filesrvaix



This is a preserved object. The object's entire script has been commented when it is extracted from PFC into ACF. Only the object's interface - the definitions of its functions and events - are preserved.

Preserved objects are for the purpose of ACF upgrading. Please refer to [Preserved Objects](#) for more information.

n_cst_filesrvhpux



This is a preserved object. The object's entire script has been commented when it is extracted from PFC into ACF. Only the object's interface - the definitions of its functions and events - are preserved.

Preserved objects are for the purpose of ACF upgrading. Please refer to [Preserved Objects](#) for more information.

n_cst_filesrvsol2



This is a preserved object. The object's entire script has been commented when it is extracted from PFC into ACF. Only the object's interface - the definitions of its functions and events - are preserved.

Preserved objects are for the purpose of ACF upgrading. Please refer to [Preserved Objects](#) for more information.

n_cst_filesrvunicode



This is a preserved object. The object's entire script has been commented when it is extracted from PFC into ACF. Only the object's interface - the definitions of its functions and events - are preserved.

Preserved objects are for the purpose of ACF upgrading. Please refer to [Preserved Objects](#) for more information.

n_cst_filesrvwin32



This is a preserved object. The object's entire script has been commented when it is extracted from PFC into ACF. Only the object's interface - the definitions of its functions and events - are preserved.

Preserved objects are for the purpose of ACF upgrading. Please refer to [Preserved Objects](#) for more information.

n_cst_inifile



This is a preserved object. The object's entire script has been commented when it is extracted from PFC into ACF. Only the object's interface - the definitions of its functions and events - are preserved.

Preserved objects are for the purpose of ACF upgrading. Please refer to [Preserved Objects](#) for more information.

n_cst_platform



This is a preserved object. The object's entire script has been commented when it is extracted from PFC into ACF. Only the object's interface - the definitions of its functions and events - are preserved.

Preserved objects are for the purpose of ACF upgrading. Please refer to [Preserved Objects](#) for more information.

n_cst_platformaix



This is a preserved object. The object's entire script has been commented when it is extracted from PFC into ACF. Only the object's interface - the definitions of its functions and events - are preserved.

Preserved objects are for the purpose of ACF upgrading. Please refer to [Preserved Objects](#) for more information.

n_cst_platformhpux



This is a preserved object. The object's entire script has been commented when it is extracted from PFC into ACF. Only the object's interface - the definitions of its functions and events - are preserved.

Preserved objects are for the purpose of ACF upgrading. Please refer to [Preserved Objects](#) for more information.

n_cst_platformsol2



This is a preserved object. The object's entire script has been commented when it is extracted from PFC into ACF. Only the object's interface - the definitions of its functions and events - are preserved.

Preserved objects are for the purpose of ACF upgrading. Please refer to [Preserved Objects](#) for more information.

n_cst_platformunicode



This is a preserved object. The object's entire script has been commented when it is extracted from PFC into ACF. Only the object's interface - the definitions of its functions and events - are preserved.

Preserved objects are for the purpose of ACF upgrading. Please refer to [Preserved Objects](#) for more information.

n_cst_platformwin32



This is a preserved object. The object's entire script has been commented when it is extracted from PFC into ACF. Only the object's interface - the definitions of its functions and events - are preserved.

Preserved objects are for the purpose of ACF upgrading. Please refer to [Preserved Objects](#) for more information.

n_cst_tvsvr_print



This is a preserved object. The object's entire script has been commented when it is extracted from PFC into ACF. Only the object's interface - the definitions of its functions and events - are preserved.

Preserved objects are for the purpose of ACF upgrading. Please refer to [Preserved Objects](#) for more information.

Debugging Objects



ACF Debugging Objects

In PFC, there are a number of objects used for debugging PFC applications. These objects and their related services are usually not used for real application features. For the convenience of debugging the client/server applications, these objects are kept unmodified in the Appeon-compliant Framework. However, when client/server PFC applications are migrated onto Web, these objects are no longer needed.

To guarantee that the debugging objects are not loaded when running in Web mode, a new non visual user object, [n_cst_environment](#) is introduced in ACF. This object is to check if applications are running in client/server or on Web. In the ACF class library, n_cst_environment checks the application running environment before any debugging object is called: if an application is running in client/server, the relevant debugging objects will be called; otherwise, they will not be called.

The following table lists the ACF debugging objects by library.

Library	Object Name

pfcutil.pbl	n_cst_debug
pfcutil.pbl	n_cst_dwpropertyattrib
pfcutil.pbl	n_cst_dwsrv_property
pfcutil.pbl	n_cst_propertyattrib
pfcutil.pbl	n_cst_sqlspy
pfcutil.pbl	u_tab_dwproperty
pfcutil.pbl	u_tab_dwproperty_srv
pfcutil.pbl	u_tabpb_dwproperty_base
pfcutil.pbl	u_tabpb_dwproperty_buffers
pfcutil.pbl	u_tabpb_dwproperty_services
pfcutil.pbl	u_tabpb_dwproperty_srvcaculator
pfcutil.pbl	u_tabpb_dwproperty_srvcalendar
pfcutil.pbl	u_tabpb_dwproperty_srvcalendar2
pfcutil.pbl	u_tabpb_dwproperty_srvdropdownsearch
pfcutil.pbl	u_tabpb_dwproperty_srvfilter
pfcutil.pbl	u_tabpb_dwproperty_srvfind
pfcutil.pbl	u_tabpb_dwproperty_srvlinkage
pfcutil.pbl	u_tabpb_dwproperty_srvlinkage2
pfcutil.pbl	u_tabpb_dwproperty_srvmultitable
pfcutil.pbl	u_tabpb_dwproperty_srvprintpreview
pfcutil.pbl	u_tabpb_dwproperty_srvquerymode
pfcutil.pbl	u_tabpb_dwproperty_srvreport
pfcutil.pbl	u_tabpb_dwproperty_srvreqcolumn
pfcutil.pbl	u_tabpb_dwproperty_srvresize
pfcutil.pbl	u_tabpb_dwproperty_srvrowmanager
pfcutil.pbl	u_tabpb_dwproperty_srvrowselection
pfcutil.pbl	u_tabpb_dwproperty_srvsort
pfcutil.pbl	u_tabpb_dwproperty_srvsyntax
pfcutil.pbl	u_tabpb_dwproperty_status
pfcutil.pbl	w_debuglog
pfcutil.pbl	w_dwproperty
pfcutil.pbl	w_dwpropertyservices
pfcutil.pbl	w_sqlspy
pfcutil.pbl	w_sqlspyinspect

n_cst_debug



This object is used for debug. No script modification is made in extracting the object from PFC into ACF. For more information on debugging objects, please refer to [Debugging Objects](#).

n_cst_dwpropertyattrib

This object is used for debug. No script modification is made in extracting the object from PFC into ACF. For more information on debugging objects, please refer to [Debugging Objects](#).

n_cst_dwsrv_property

This object is used for debug. No script modification is made in extracting the object from PFC into ACF. For more information on debugging objects, please refer to [Debugging Objects](#).

n_cst_propertyattrib

This object is used for debug. No script modification is made in extracting the object from PFC into ACF. For more information on debugging objects, please refer to [Debugging Objects](#).

n_cst_sqlspy

This object is used for debug. No script modification is made in extracting the object from PFC into ACF. For more information on debugging objects, please refer to [Debugging Objects](#).

u_tab_dwproperty

This object is used for debug. No script modification is made in extracting the object from PFC into ACF. For more information on debugging objects, please refer to [Debugging Objects](#).

u_tab_dwproperty_srv

This object is used for debug. No script modification is made in extracting the object from PFC into ACF. For more information on debugging objects, please refer to [Debugging Objects](#).

u_tabpb_dwproperty_base

This object is used for debug. No script modification is made in extracting the object from PFC into ACF. For more information on debugging objects, please refer to [Debugging Objects](#).

u_tabpb_dwproperty_buffers

This object is used for debug. No script modification is made in extracting the object from PFC into ACF. For more information on debugging objects, please refer to [Debugging Objects](#).

u_tabpb_dwproperty_services

This object is used for debug. No script modification is made in extracting the object from PFC into ACF. For more information on debugging objects, please refer to [Debugging Objects](#).

u_tabpb_dwproperty_srvcalculator

This object is used for debug. No script modification is made in extracting the object from PFC into ACF. For more information on debugging objects, please refer to [Debugging Objects](#).

u_tabpb_dwproperty_srvcalendar

This object is used for debug. No script modification is made in extracting the object from PFC into ACF. For more information on debugging objects, please refer to [Debugging Objects](#).

u_tabpb_dwproperty_srvcalendar2

This object is used for debug. No script modification is made in extracting the object from PFC into ACF. For more information on debugging objects, please refer to [Debugging Objects](#).

u_tabpb_dwproperty_srvdropdownsearch

This object is used for debug. No script modification is made in extracting the object from PFC into ACF. For more information on debugging objects, please refer to [Debugging Objects](#).

u_tabpb_dwproperty_srvfilter

This object is used for debug. No script modification is made in extracting the object from PFC into ACF. For more information on debugging objects, please refer to [Debugging Objects](#).

u_tabpb_dwproperty_srvfind

This object is used for debug. No script modification is made in extracting the object from PFC into ACF. For more information on debugging objects, please refer to [Debugging Objects](#).

u_tabpb_dwproperty_srvlinkage

This object is used for debug. No script modification is made in extracting the object from PFC into ACF. For more information on debugging objects, please refer to [Debugging Objects](#).

u_tabpb_dwproperty_srvlinkage2

This object is used for debug. No script modification is made in extracting the object from PFC into ACF. For more information on debugging objects, please refer to [Debugging Objects](#).

u_tabpb_dwproperty_srvmultitable

This object is used for debug. No script modification is made in extracting the object from PFC into ACF. For more information on debugging objects, please refer to [Debugging Objects](#).

u_tabpb_dwproperty_srvprintpreview

This object is used for debug. No script modification is made in extracting the object from PFC into ACF. For more information on debugging objects, please refer to [Debugging Objects](#).

u_tabpb_dwproperty_srvquerymode

This object is used for debug. No script modification is made in extracting the object from PFC into ACF. For more information on debugging objects, please refer to [Debugging Objects](#).

u_tabpb_dwproperty_srvreport

This object is used for debug. No script modification is made in extracting the object from PFC into ACF. For more information on debugging objects, please refer to [Debugging Objects](#).

u_tabpb_dwproperty_srvreqcolumn

This object is used for debug. No script modification is made in extracting the object from PFC into ACF. For more information on debugging objects, please refer to [Debugging Objects](#).

u_tabpb_dwproperty_srvresize

This object is used for debug. No script modification is made in extracting the object from PFC into ACF. For more information on debugging objects, please refer to [Debugging Objects](#).

u_tabpb_dwproperty_srvrowmanager

This object is used for debug. No script modification is made in extracting the object from PFC into ACF. For more information on debugging objects, please refer to [Debugging Objects](#).

u_tabpb_dwproperty_srvrowselection



This object is used for debug. No script modification is made in extracting the object from PFC into ACF. For more information on debugging objects, please refer to [Debugging Objects](#).

u_tabpb_dwproperty_srvsort



This object is used for debug. No script modification is made in extracting the object from PFC into ACF. For more information on debugging objects, please refer to [Debugging Objects](#).

u_tabpb_dwproperty_srvsyntax



This object is used for debug. No script modification is made in extracting the object from PFC into ACF. For more information on debugging objects, please refer to [Debugging Objects](#).

u_tabpb_dwproperty_status



This object is used for debug. No script modification is made in extracting the object from PFC into ACF. For more information on debugging objects, please refer to [Debugging Objects](#).

w_debuglog



This object is used for debug. No script modification is made in extracting the object from PFC into ACF. For more information on debugging objects, please refer to [Debugging Objects](#).

w_dwproperty



This object is used for debug. No script modification is made in extracting the object from PFC into ACF. For more information on debugging objects, please refer to [Debugging Objects](#).

w_dwpropertyservices

This object is used for debug. No script modification is made in extracting the object from PFC into ACF. For more information on debugging objects, please refer to [Debugging Objects](#).

w_sqlspy

This object is used for debug. No script modification is made in extracting the object from PFC into ACF. For more information on debugging objects, please refer to [Debugging Objects](#).

w_sqlspyinspect

This object is used for debug. No script modification is made in extracting the object from PFC into ACF. For more information on debugging objects, please refer to [Debugging Objects](#).

Un-extracted Objects

Un-extracted Objects

The following table lists the PFC objects that are not extracted into ACF. If your PFC applications use any of these un-extracted objects, you should remove them before migrating the PFC applications.

Library	Object Name
pfcapsrv.pbl	n_cst_dropdown
pfcapsrv.pbl	n_cst_metaclass
pfcapsrv.pbl	n_cst_rtefind
pfcapsrv.pbl	n_cst_tmgmultiple
pfcapsrv.pbl	n_cst_tmgregisterattrib
pfcapsrv.pbl	n_cst_tmgsingle
pfcdwsvr.pbl	n_cst_zoomattrib
pfcdwsvr.pbl	w_zoom
pfcmain.pbl	m_oc
pfcmain.pbl	n_cn
pfcmain.pbl	n_cxinfo
pfcmain.pbl	n_cxk
pfcmain.pbl	n_dda
pfcmain.pbl	n_dsa

pfcmain.pbl	n_err
pfcmain.pbl	n_inet
pfcmain.pbl	n_ir
pfcmain.pbl	n_ms
pfcmain.pbl	n_oo
pfcmain.pbl	n_ostg
pfcmain.pbl	n_ostm
pfcmain.pbl	n_pl
pfcmain.pbl	n_srv
pfcmain.pbl	n_tmg
pfcmain.pbl	n_trp
pfcmain.pbl	u_gr
pfcmain.pbl	u_hpb
pfcmain.pbl	u_hsb
pfcmain.pbl	u_htb
pfcmain.pbl	u_oc
pfcmain.pbl	u_phl
pfcmain.pbl	u_rte
pfcmain.pbl	u_sth
pfcmain.pbl	u_vpb
pfcmain.pbl	u_vsb
pfcmain.pbl	u_vtb
pfcwsvr.pbl	n_cst_toolbarattrib
pfcwsvr.pbl	n_cst_winsrv_statusbar
pfcwsvr.pbl	n_cst_winsrv_statusbarattrib
pfcwsvr.pbl	w_statusbar
pfcwsvr.pbl	w_toolbars

m_oc



This PFC object is not extracted into ACF. If your PFC applications use [un-extracted objects](#), you should remove them.

n_cn



This PFC object is not extracted into ACF. If your PFC applications use [un-extracted objects](#), you should remove them.

n_cst_dropdown



This PFC object is not extracted into ACF. If your PFC applications use [un-extracted objects](#), you should remove them.

NOTE:

The object is not extracted because it is no longer used by `u_calculator` and `u_calendar` in ACF, and has been replaced in the implementation of ACF Dropdown Calculator & Calendar Services. From the user perspective, you use these services in ACF the same as in PFC.

n_cst_metaclass



This PFC object is not extracted into ACF. If your PFC applications use [un-extracted objects](#), you should remove them.

n_cst_rtefind



This PFC object is not extracted into ACF. If your PFC applications use [un-extracted objects](#), you should remove them.

n_cst_tmgmultiple



This PFC object is not extracted into ACF. If your PFC applications use [un-extracted objects](#), you should remove them.

n_cst_tmgregisterattrib



This PFC object is not extracted into ACF. If your PFC applications use [un-extracted objects](#), you should remove them.

n_cst_tmgsingle



This PFC object is not extracted into ACF. If your PFC applications use [un-extracted objects](#), you should remove them.

n_cst_toolbarattrib



This PFC object is not extracted into ACF. If your PFC applications use [un-extracted objects](#), you should remove them.

n_cst_winsrv_statusbar



This PFC object is not extracted into ACF. If your PFC applications use [un-extracted objects](#), you should remove them.

n_cst_winsrv_statusbarattrib



This PFC object is not extracted into ACF. If your PFC applications use [un-extracted objects](#), you should remove them.

n_cst_zoomattrib



This PFC object is not extracted into ACF. If your PFC applications use [un-extracted objects](#), you should remove them.

n_cxinfo



This PFC object is not extracted into ACF. If your PFC applications use [un-extracted objects](#), you should remove them.

n_cxk



This PFC object is not extracted into ACF. If your PFC applications use [un-extracted objects](#), you should remove them.

n_dda



This PFC object is not extracted into ACF. If your PFC applications use [un-extracted objects](#), you should remove them.

n_dsa



This PFC object is not extracted into ACF. If your PFC applications use [un-extracted objects](#), you should remove them.

n_err



This PFC object is not extracted into ACF. If your PFC applications use [un-extracted objects](#), you should remove them.

n_inet



This PFC object is not extracted into ACF. If your PFC applications use [un-extracted objects](#), you should remove them.

n_ir



This PFC object is not extracted into ACF. If your PFC applications use [un-extracted objects](#), you should remove them.

n_ms



This PFC object is not extracted into ACF. If your PFC applications use [un-extracted objects](#), you should remove them.

n_oo



This PFC object is not extracted into ACF. If your PFC applications use [un-extracted objects](#), you should remove them.

n_ostg



This PFC object is not extracted into ACF. If your PFC applications use [un-extracted objects](#), you should remove them.

n_ostm



This PFC object is not extracted into ACF. If your PFC applications use [un-extracted objects](#), you should remove them.

n_pl



This PFC object is not extracted into ACF. If your PFC applications use [un-extracted objects](#), you should remove them.

n_srv



This PFC object is not extracted into ACF. If your PFC applications use [un-extracted objects](#), you should remove them.

n_tmg



This PFC object is not extracted into ACF. If your PFC applications use [un-extracted objects](#), you should remove them.

n_trp



This PFC object is not extracted into ACF. If your PFC applications use [un-extracted objects](#), you should remove them.

u_gr



This PFC object is not extracted into ACF. If your PFC applications use [un-extracted objects](#), you should remove them.

u_hpb



This PFC object is not extracted into ACF. If your PFC applications use [un-extracted objects](#), you should remove them.

u_hsb



This PFC object is not extracted into ACF. If your PFC applications use [un-extracted objects](#), you should remove them.

u_htb



This PFC object is not extracted into ACF. If your PFC applications use [un-extracted objects](#), you should remove them.

u_oc



This PFC object is not extracted into ACF. If your PFC applications use [un-extracted objects](#), you should remove them.

u_phl



This PFC object is not extracted into ACF. If your PFC applications use [un-extracted objects](#), you should remove them.

u_rte



This PFC object is not extracted into ACF. If your PFC applications use [un-extracted objects](#), you should remove them.

u_sth



This PFC object is not extracted into ACF. If your PFC applications use [un-extracted objects](#), you should remove them.

u_vpb



This PFC object is not extracted into ACF. If your PFC applications use [un-extracted objects](#), you should remove them.

u_vsb



This PFC object is not extracted into ACF. If your PFC applications use [un-extracted objects](#), you should remove them.

u_vtb



This PFC object is not extracted into ACF. If your PFC applications use [un-extracted objects](#), you should remove them.

w_statusbar



This PFC object is not extracted into ACF. If your PFC applications use [un-extracted objects](#), you should remove them.

w_toolbars



This PFC object is not extracted into ACF. If your PFC applications use [un-extracted objects](#), you should remove them.

w_zoom



This PFC object is not extracted into ACF. If your PFC applications use [un-extracted objects](#), you should remove them.