



Using the PowerBuilder Foundation Class Library with Appeon Pure-JavaScript

Appeon® 5.1 for PowerBuilder®

For WINDOWS & SUN SOLARIS

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Appeon Corporation, 1/F, Shell Industrial Building, 12 Lee Chung Street, Chai Wan District, Hong Kong.

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](#)



| | | | |
|--|--|--|--|
| | | | |
|--|--|--|--|

| 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 | | |
|-------------|-----|--|--|

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

| | |
|--|--|
| | |
|--|--|

| 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 | | |
|---------|-----|--|--|

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 |
|------------|-----------|-------------|-------|
|------------|-----------|-------------|-------|

| | | | |
|---------|-----|--|--|
| 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_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 | | |
| pf_c_cancel | Yes | | |
| pf_c_default | Yes | | |
| pf_c_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. |
|----------|----|--|--------------------------------------|

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](#)



| Function Name | Supported | Limitations | Notes |
|--------------------|-----------|-------------|-------|
| of_GetParentWindow | Yes | | |
| of_MessageBox | Yes | | |

u_cbx

[Functions](#) | Events



| Event Name | Supported | Limitations | Notes |
|------------|-----------|-------------|-------|
| GetFocus | Yes | | |

u_ddlb

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

**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](#)



| Function Name | Supported | Limitations | Notes |
|--------------------|-----------|-------------|-------|
| of_GetParentWindow | Yes | | |
| of_MessageBox | Yes | | |

u_ddlb

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



| 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_sle[Functions](#) | [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

pfcn_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_userinfile | 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

pfc_n_base (n_base) --> pfc_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 | | |
| | | | |

| | | | |
|---------------------|-----|--|--|
| pfcdwsrv_InsertRow | Yes | | |
| pfcdwsrv_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

```

pfcdwsrv_base (n_base)
--> pfcdwsrv_n_cst_dwsrv (n_cst_dwsrv)
--> pfcdwsrv_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

pf_c_n_base (n_base) -> pf_c_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_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 |

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 |
| pfcwnsrv.pbl | n_cst_toolbarattrib |
| pfcwnsrv.pbl | n_cst_winsrv_statusbar |
| pfcwnsrv.pbl | n_cst_winsrv_statusbarattrib |
| pfcwnsrv.pbl | w_statusbar |
| pfcwnsrv.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.