

Increase Productivity: Five PxPlus Utilities

PxPlus 2016 (v13)



Agenda

Online Update

Maintain Projects Utility

Panel Conversion Utility

Wizard Creation Wizard

Install Windows Services



Online Update

Keep your PxPlus install up-to-date



Online Update

- Convenient and secure method for updating the PxPlus Development Suite over the internet
 - Programs
 - Screen library
 - Executable (.EXE) and/or .DLLs
 - Help files
- Introduced just after PxPlus 2014

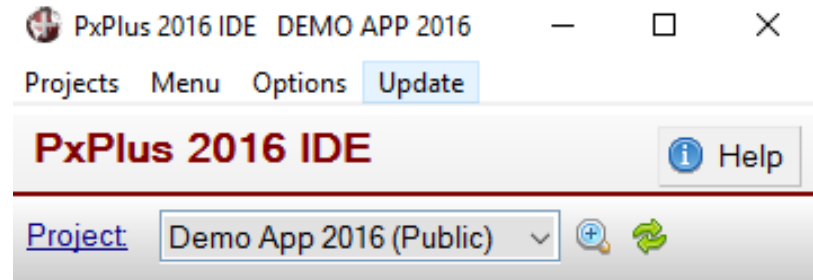
PxPlus 2014.01



DireXions 2016

Online Update

- Client/Server environment
 - Run on server
 - WindX workstations
- Access Online Update
 - IDE menu bar
 - PxPlus command prompt
 - Type: **updates**



Online Update – Getting Started

● Important Note:

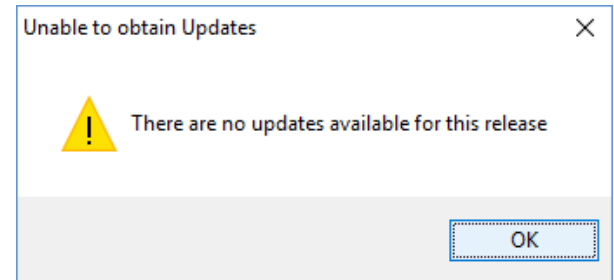


The Online Update should only be run after all users have exited the system; otherwise, errors can occur when the Online Update attempts to apply changes to one or more files already in use.

- Also recommended that you exit PxPlus and re-enter after the update is completed

● Running the update

- Checks online to determine if any updates are available for the installed version of PxPlus



Update Manager Screen

- Displays updates available for PxPlus version

ID	Title	Date	Status
0006	Update for PxPlus 2014 FP1 Help	2015/12/04	Removed on 2016-07-04 by Susan
0005	Update for PxPlus 2014 FP1	2015/12/01	Applied on 2016-07-04 by Susan
0004	Update for PxPlus 2014 FP1 Executable ...	2015/11/05	Applied on 2016-06-28 by Susan
0003	Update for PxPlus 2014 FP1 Help	2015/10/07	Applied on 2016-06-28 by Susan
0002	Update for PxPlus 2014 FP1	2015/09/22	Applied on 2016-06-28 by Susan
0001	Updated PxPlus Executable and DLLs	2015/09/01	Applied on 2016-06-28 by Susan

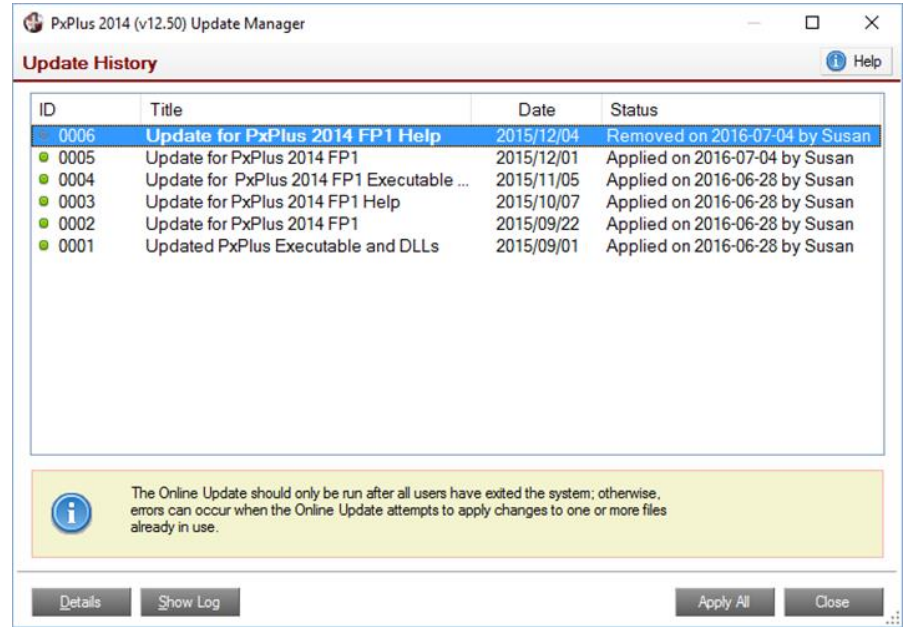
The Online Update should only be run after all users have exited the system; otherwise, errors can occur when the Online Update attempts to apply changes to one or more files already in use.

- ID: Update Sequence No.
- Title
- Date: Released
- Status:
 - Pending
 - Applied
 - Failed
 - Removed



Update Manager

- Right-click popup menu
 - Show Details
 - Apply up to this point
 - Revert to before this point
- Information message
- Details button
 - release notes



PxPlus 2014 (v12.50) Update Manager

Update History Help

ID	Title	Date	Status
0006	Update for PxPlus 2014 FP1 Help	2015/12/04	Removed on 2016-07-04 by Susan
0005	Update for PxPlus 2014 FP1	2015/12/01	Applied on 2016-07-04 by Susan
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i The Online Update should only be run after all users have exited the system; otherwise, errors can occur when the Online Update attempts to apply changes to one or more files already in use.

Details Show Log Apply All Close



How the Online Update Works

- ***update (lib/_update)** folder is located under the lib directory with sub-folders for each version
- Each version folder contains a **status** data file as well as folders for each update (0001, 0002 etc.)
 - Zip file of the updates involved (**readme** file)
 - Backup versions of the files being updated
 - **logfile** text file



Text Mode Online Update

- Commands available at the -> prompt:

Command	Description
UPDATES	Either launches the graphical update utility on a graphical device or displays Help information on a text mode device.
UPDATES LIST #	Lists the title, description and status of the Update ID specified (#). If no Update ID is supplied, the title and status details of all updates are listed.
UPDATES APPLY #	Applies all updates, up to and including the specified Update ID (#). If no Update ID is supplied, all pending updates will be applied.
UPDATES REMOVE #	Removes any updates that have been applied back to and including the specified Update ID (#). If no Update ID is supplied, all applied updates will be removed.



Online Update - Advantages

- Provides many advantages
 - Allows us to post updates in a more timely manner, without the need to create new builds
 - Updates available to end users more quickly
 - Applies updates in an easy and secure manner
 - You are in control of the updates
 - Allows for rollback of updates in case of a problem
 - Tracks updates applied, assisting our Support Department to resolve issues



Maintain Projects Utility

Add multiple tasks to projects by batch



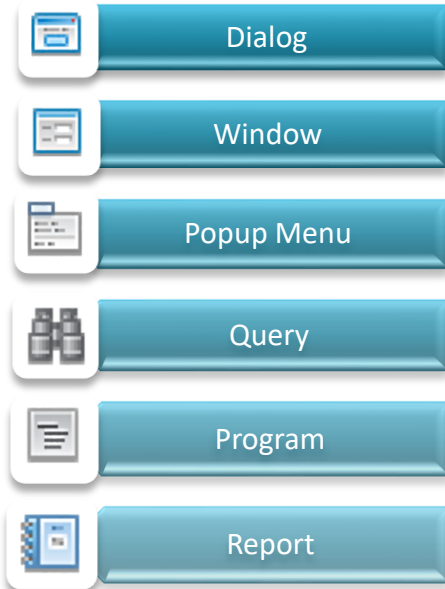
Quick Review of Projects

- A project is a collection of tasks that a developer is working on
 - **public** or **private**
 - Ensures the correct working environment by running any **START_UP** program present in the associated directory
 - Allows for quick access to the tasks associated with the project through the Project tab on the IDE



Adding Tasks to Projects

- What kind of tasks can be added to a project?
 - Each task type has a corresponding icon



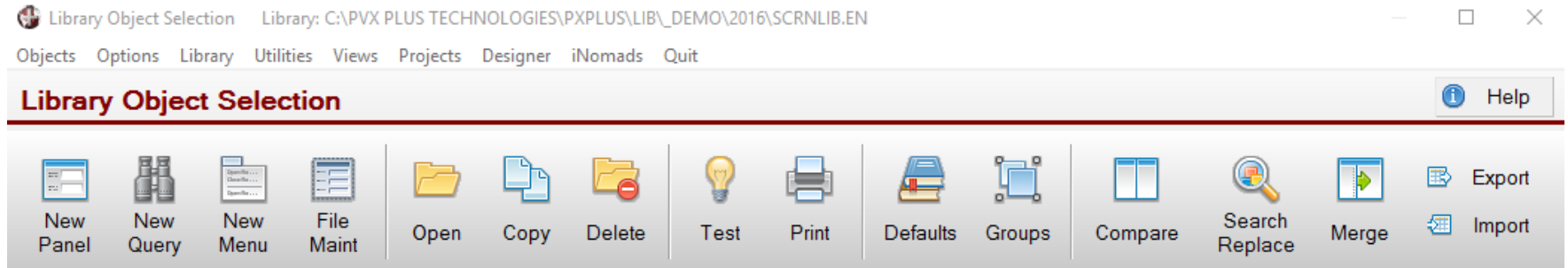
PxPlus 2014 FP1



Library Object Selection

- Library Object Selection panel in NOMADS
 - Add multiple library objects to a project all at one time

PxPlus 2014 FP1

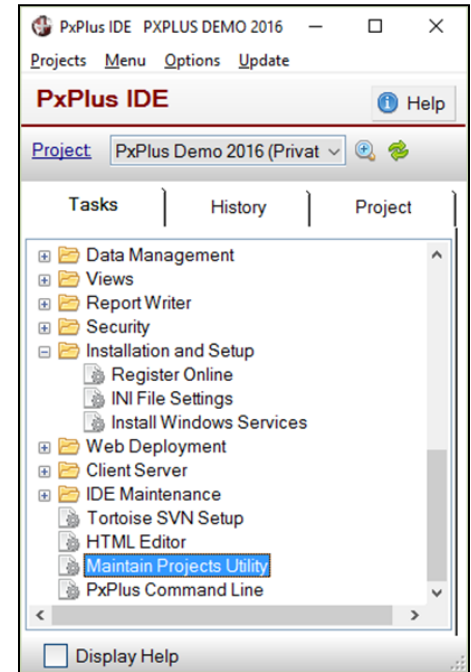


How can I add many other tasks?

● Maintain Projects Utility

PxPlus 2014 FP1

- Adds (or removes) one or more tasks of various types to a predefined project
- Accessed from the IDE



Maintain Projects Utility Screen

Maintain Projects Utility

Project: DEMO APP (Public)

Working Directory: C:\PVX Plus Technologies\PxPlus\Lib_demo2016

Type: Library C:\PVX Plus Technologies\PxPlus\Lib_demo2016\scmlib.en

Task Types to Maintain

Library Objects Programs Reports Data Files Data Dictionary

Select Tasks for Project

Library = C:\PVX Plus Technologies\PxPlus\Lib_demo2016\scmlib.en

- CHART_SLS - Sales Figures
- CL_INV_QRY - Query:CL_INV_QRY
- CLIENT_MNT - File Maintenance for Client Master File
- CLIENT_MNT.1 - File Maint for Client Master File (Panel 1)
- CLIENT_MNT.2 - File Maint for Client Master File (Panel 2)
- CLIENT_MNT.3 - File Maint for Client Master File (Panel 3)
- CLIENT_MNT.4 - File Maint for Client Master File (Panel 4)
- CLIENT_QRY - Client Master File Query
- CLIENT_TV - Unpaid Invoices
- CLIENT_TVSM - Unpaid Invoices
- DEPT_MNT - Department File Maintenance
- DEPT_QRY - Department Query
- FOLDERHEADER - Folder Header Embedded Panel
- GENREPORT - Generate a Report
- GLOBAL - Global
- HEADER - Folder Header Embedded Panel
- INV_MNT - File Maintenance for Invoice Header
- INV_MNT.1 - File Maint for Invoice Header (Panel 1)
- INV_MNT.1P - File Maint for Invoice Header (Panel 1)
- INV_MNT.2 - File Maint for Invoice Header (Panel 2)
- INV_MNT.2P - File Maint for Invoice Header (Panel 2)
- INV_MNT.3 - File Maint for Invoice Header (Panel 3)
- INV_MNT.3P - File Maint for Invoice Header (Panel 3)
- INV_MNT.P - File Maintenance for Invoice Header
- INV_PRT - Print Invoice
- INVDTI_PQP - Print Menu

Reset Ok Apply Cancel Exit



Results of Maintain Projects Utility

- Projects tab on IDE *or* Projects Manager view in ***it**
- Project contents displayed in a tree view list box
- Double-clicking launches appropriate PxPlus program

Task Type	Program Run
Panels, Popups and Queries	NOMADS
Library sub-heading	Library Object Selection
Program	*it
Report Writer Reports	Report Designer
Data Files	File Update Utility (fm)
Data Dictionary Entries	Data Dictionary Maint.



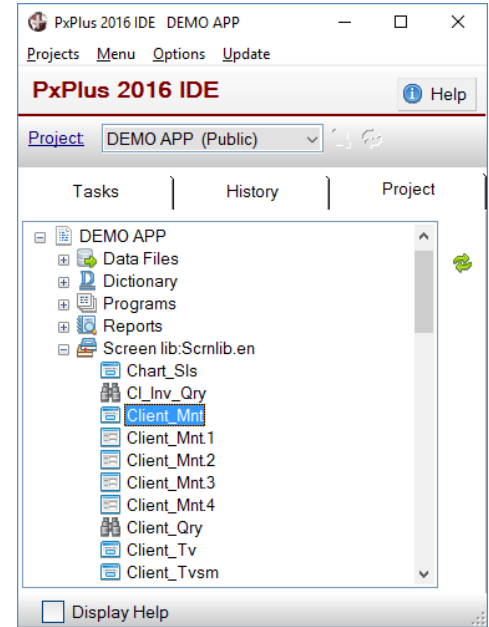
Maintain Projects Utility Advantages

Advantages of Projects

- Always in the right working environment
- Keeps work organized and easily accessible

Advantages of the Utility

- Faster than adding tasks to a project one at a time
- Different types of tasks are added at the same time



Panel Conversion Utility

Give your application a makeover



Before Example

- File Maintenance for Client Master File

- Before

File Maintenance for Client Master File "DireXions Demo - Not for resale" [X]

Client ID: [Search] [Back] [Forward]

General | Contact | Accounting | Invoices

Name:

Address:

Address:

City: [Map]

Zip code/Postal Code: Phone Number:

State / Province: Phone Extension:

Country: Contact Name:

[Write] [Delete] [Clear] [Exit]



After Example

● File Maintenance for Client Master File

● After

File Maintenance for Client Master File

File Maintenance for Client Master File

Client ID:

General

Name:

Address:

Address:

City:

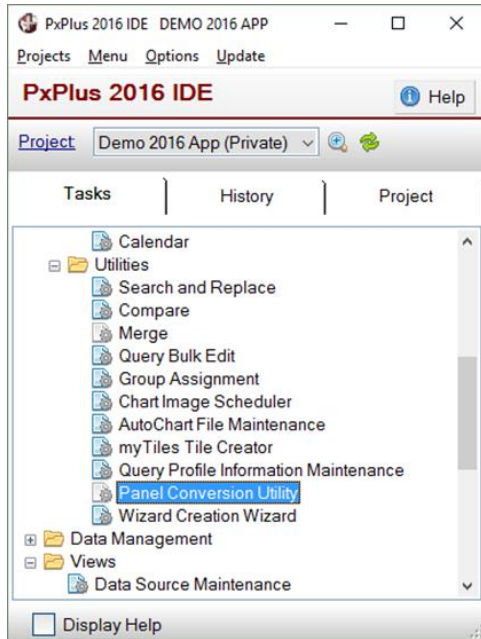
Zip code/Postal Code: Phone Number:

State / Province: Phone Extension:

Country: Contact Name:



Panel Conversion Utility



- Apply panel layout changes to multiple NOMADS panels simultaneously
 - One particular library
 - Multiple libraries within the same directory
- ‘Conversion’ is totally optional
- Accessed from
 - IDE
 - NOMADS Utilities menu

PxPlus 2014 FP1



History of Panel Conversion Utility

- Started as a 'quick and dirty' utility to convert many of our in-house panels for the UI changes introduced in PxPlus 2014
- Added a graphical user interface
 - Generic options
 - Available for anyone who might want to give their application a makeover



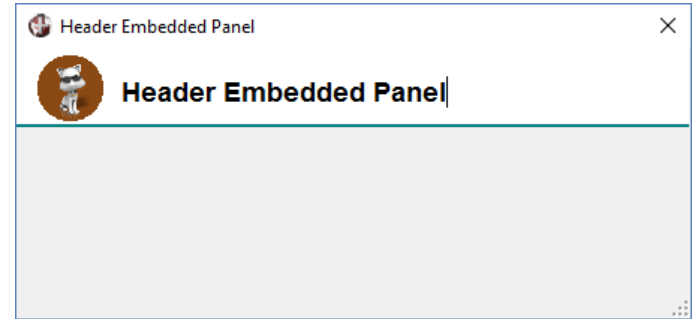
What Panel Conversions are done?

- 1) Change existing folder controls to one of the new sidebar styles introduced in PxPlus 2014
(**Left Sidebar** and **Right Sidebar**)
- 2) Embed header-type panels in the top left corner of panels



Preparation for Panel Conversion

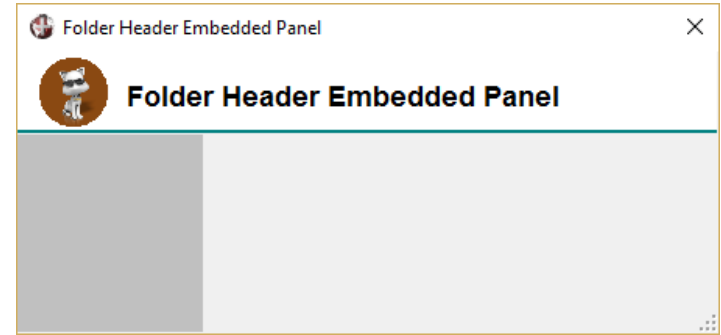
- Create **HEADER** panel to be embedded at the top of most panels
 - Unique control names
 - Stretch
 - Lines/Columns added to panel sizes
 - Use of **%nomads'caption\$**



Preparation – Panels with Folders

- Create **FOLDERHEADER** panel to be embedded at the top of folder panels
 - Same as **HEADER** but with an extra side rectangle

- Create **FOLDERTABS** Visual Class for use with Folder Controls



More Preparation

- Examine existing panels
- Ensure no panel is currently in use
- Run the Panel Conversion Utility from either
 - IDE Launcher
 - Utilities menu on the NOMADS Session Manager



Running the Panel Conversion Utility

- Convert folder panels and add **FOLDERHEADER** panel
- Add **HEADER** to all other panels
 - Error Report
- Revert last set of changes and re-convert



Panel Conversion Utility Screens

Panel Conversion Utility

Panel Conversion Utility Help

Type: Library C:\PVX Plus Technologies\FxPlus\Lib_demo\2016\scrmlib.en

Include: Folders Only, add Headers

i For each screen library processed, a backup library will be created containing the original panels. This backup library will be named lib_name.bak (where lib_name is the name of the processed library including any extension).

Layout

Panels

Folder Tabs

Tabless Folder

Position: Left Sidebar

Width: 12

Offset: 0.00

Folder Frame Style

Fixed Expression

Top/Bottom line

Folder Visual Class: F_HEADER

Header Embedded Panel

Library: C:\PVX Plus Technologies\FxPlus\Lib_demo\2016\scrmlib.en

Panel: FOLDERHEADER

Extra Lines: 3 Extra Columns: 0 Stretchable

i Panel will be embedded in the top left corner of all dialogs or windows.
Extra lines and columns will be added to the top left of dialog or window panels to accommodate the embedded panel (if necessary).

Reset Next Exit

Panel Conversion Utility

Panel Conversion Utility Help

Type: Library C:\PVX Plus Technologies\FxPlus\Lib_demo\2016\scrmlib.en

Include: Folders Only, add Headers

i For each screen library processed, a backup library will be created containing the original panels. This backup library will be named lib_name.bak (where lib_name is the name of the processed library including any extension).

Layout

Panels

Include Panels

- C:\PVX Plus Technologies\FxPlus\Lib_demo\2016\scrmlib.en
- CLIENT_MNT - File Maintenance for Client Master File
- INV_MNT - File Maintenance for Invoice Header
- INV_MNT.P - File Maintenance for Invoice Header
- ME_WIZ - Wizard

Reset Proceed Exit



Results of Panel Conversion Utility

- Folders converted to the new **left sidebar** style
- Reference a Visual Class
 - Easy and consistent future changes to all panels with folders
- Folders have a new **FOLDERHEADER** embedded panel while all other panels now contain the **HEADER** embedded panel
 - Any panels with problems are identified on the error screen
 - Embedded panels allow changes to be made in one location but affect multiple panels
- Easy to revert last set of changes, if something is incorrect



Panel Conversion Utility Advantages

● Advantages

- Eliminates the need to adjust the size of each panel and move all of the existing controls to accommodate the new, embedded panel
- Speeds-up the UI changes required
- Process multiple libraries within a directory
- Applies the changes consistently to every panel
- Flexible – lets the user choose which panels to include
- Easy to fine tune with the 'Revert' function



Wizard Creation Wizard

Create a wizard like magic



Wizard Definition

● What's a Wizard?



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[Contents](#)
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Wizard (software)

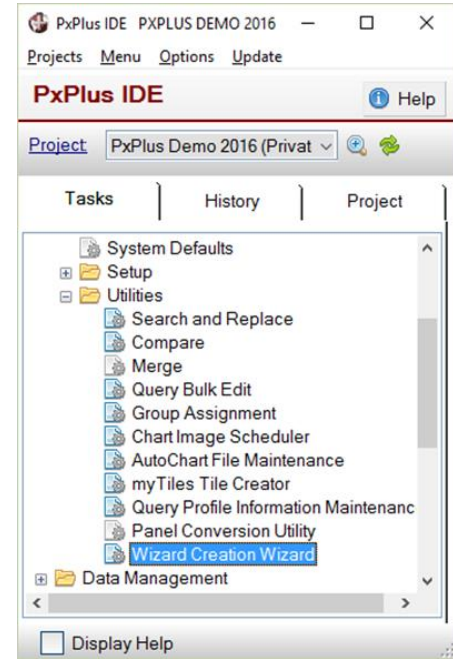
From Wikipedia, the free encyclopedia

A software **wizard** or **setup assistant** is a [user interface](#) type that presents a [user](#) with a sequence of [dialog boxes](#) that lead the user through a series of well-defined steps. Tasks that are complex, infrequently performed, or unfamiliar may be easier to perform using a wizard.



Wizard Creation Wizard

- Step by step guide for your Wizard
 - Creates the basic UI
 - Builds program to run Wizard
- Access from
 - IDE
 - NOMADS Utilities menu
- Evolved from the wizard interface designed for the new *i*Nomads Template Designer Wizard



Wizard Creation Overview

● Welcome Screen

● Steps

● Finish

Step 5 Finish - Review summary and create the wizard.

1 Names & Locations 2 Welcome / Finish 3 Step Section 4 Steps 5 Finish

Wizard Creation Wizard is Complete

You can review your selections below.

Name & Locations	
Wizard Name:	Month-End Procedures
Program Directory:	C:\PVX Plus Technologies\PxPlus\Lib_demo\2016\prog
Screen Library:	C:\PVX Plus Technologies\PxPlus\Lib_demo\2016\scrmlib.en
Short Prefix:	ME

Welcome / Finish	
Welcome Image:	C:\PVX Plus Technologies\PxPlus\Lib_demo\2016\images\cats_logo.png
Welcome Page Text:	Welcome to the Canadian Auto Toy Store Month-end Procedures Wizard. Please print any optional reports required before processing month-end. NOTE: ALL Required reports MUST be printed.

Open Wizard panel for editing after completion

Click Finish to create the Wizard.

Back Next Finish Cancel



Running the Wizard Creation Wizard

- Example using our Demo C.A.T.S. application
 - Create a Month-End Process wizard
 - New wizard will guide the user through printing optional and required month-end reports
 - Verify that they cannot continue until all of the required reports have been printed
 - To finish, the Month-End will be performed



Results of Wizard Creation Wizard

- A program called **me_wizard** has been created in the directory we designated for the program
- 5 panels have been created in the designated screen library

ME_WIZ	Main Wizard panel
ME_WEL	Welcome panel
ME_1	Step 1 panel
ME_2	Step 2 panel
ME_FIN	Finish panel



After Wizard Creation

- Once the program and panels are created, they can be edited and adjusted just like any other programs/panels
 - Add controls to the step panels (**utl_1** and **utl_2** panels)
 - Add any programming required to the wizard program (**utl_wizard**)

PREDISPLAY_WIZARD	Define %pvr_dir\$
SWITCH_FOLDER	Ensure required reports were printed
POST_DISPLAY_FINISH	Code contents of grid for review
FINISH	Code month-end procedures
RUN_REPORT	Method to run the reports



Why use the Wizard Creation Wizard?

● Advantages

- Speeds-up the development cycle
- Simplifies complex UI (*involving tableless folders*)
- Creates basic program and screens
- Provides consistent 'look and feel' for all wizards created



Install Windows Services

Install multiple instances of a Windows Service



Windows Services in PxPlus

Windows Services	Text program
EZWeb Server	*ezweb/install
Simple Client Server	*plus/cs/service
AutoChart Scheduler	*plus/winutl/chartservice
Inittab Emulation Server	*plus/winutl/service
PxPlus Web Server	*plus/web/service



Windows Services – pre Version 2014

- Programs were text-based utilities
 - For example: **EZWeb**

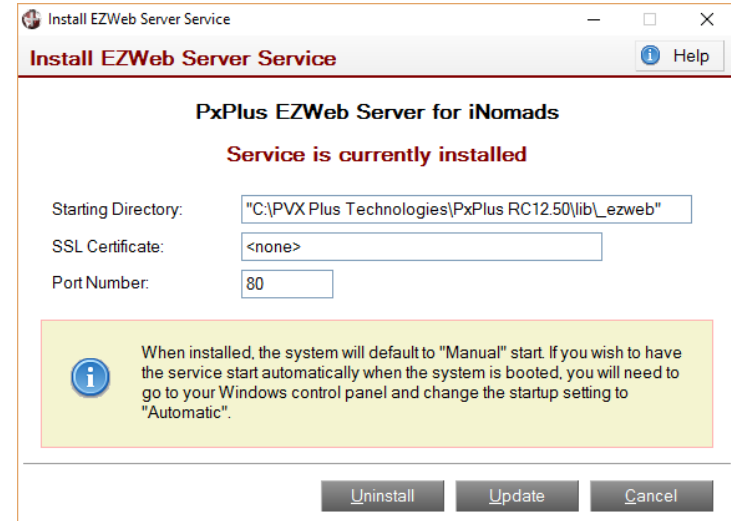
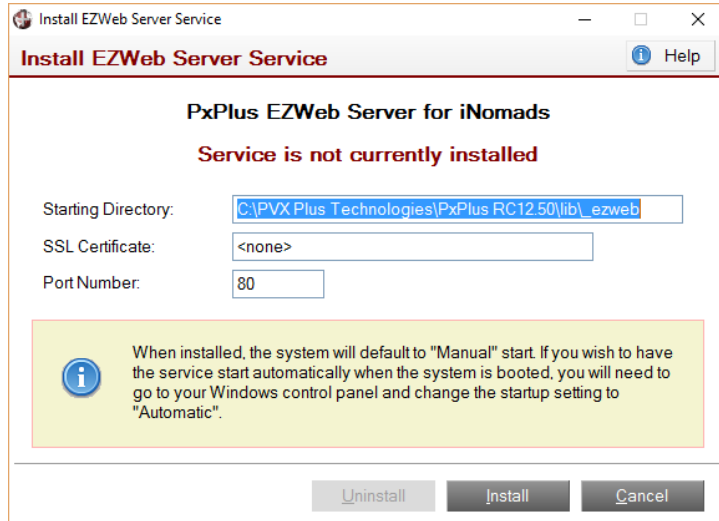
```
PxPlus
Program Utilities Edit Debug Help

->run "*ezweb/install"
Service Not currently installed
Do you want to install the service (Y/N):Y
Starting directory.....:C:\PVX Plus Technologies\PxPlus\lib\_ezweb
SSL Certificate.....:
Port to use.....:80
->
->run "*ezweb/install"
Name of service is:PxPlus Easy Web Server for iNomads
Directory:          "C:\PVX Plus Technologies\PxPlus\lib\_ezweb"
SSL Certificate...:<none>
Port number.....:80
You can enter 'D' to delete the service or 'U' to update it (D/U):D
->|
```



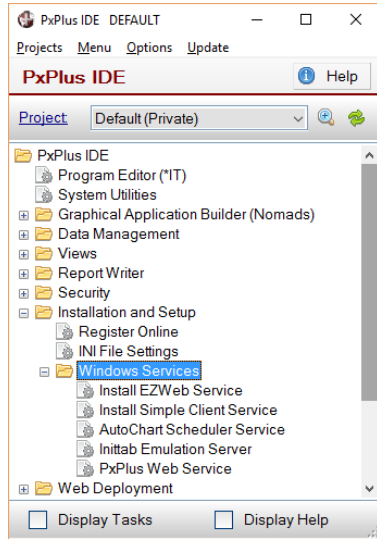
Windows Services in Version 2014

- PxPlus 2014 introduced GUI versions of the utilities
 - Allowed only one instance of each type of service

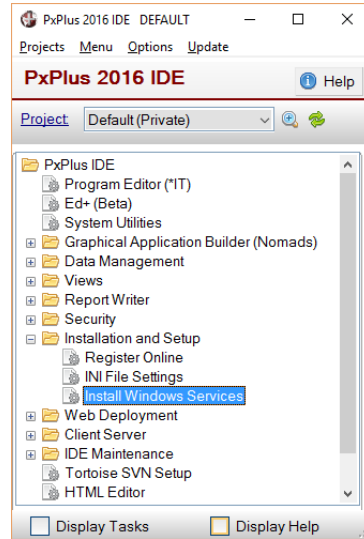


Windows Services on IDE Launcher

PxPlus 2014



PxPlus 2016



- Defined as a task on the PxPlus IDE
 - **Windows Only**
 - Option not available on a non-windows system



Windows Services in PxPlus 2016

- Combined all Windows Services onto one utility
 - Easily install multiple instances of the same kind of service, using different settings, ports etc.
 - Different Applications
 - Different Companies
 - Keep data in ***plus/winutl/windows_services.dat**
 - Listing is available for all of the services defined



Install Windows Services Screen

Install Windows Services

Install Windows Services Help

Type of Service: Simple Client Server PxPlus Simple Client Server

Name of Service	Starting Directory	Port #	Reconnect Time (secs)	Forced Program	Start	Installed
PxPlusCS	"C:\PVX Plus Technologies\PxPlus\L	4093	0	<none>	Manual	<input type="checkbox"/>

Install
Add
Remove

i Use the grid side buttons to install, uninstall, add or delete services.
NOTE: A service must be uninstalled before it may be edited or deleted.

Exit



Review

What have we learned about PxPlus Utilities?



5 Utilities - Review

- We have seen five (*new or updated*) PxPlus 2016 utilities which will help you take full advantage of the new features added to the language and increase your productivity
 - Online Update
 - Maintain Projects Utility
 - Panel Conversion Utility
 - Wizard Creation Wizard
 - Install Windows Services



Online Update

- The **Online Update** utility securely downloads and applies the latest updates available from PVX Plus Technologies Ltd.



Maintain Projects Utility

- The **Maintain Projects Utility** facilitates your transition to using the PxPlus IDE by allowing you to add many different tasks to projects in large batches.



Panel Conversion Utility

- The **Panel Conversion Utility** makes it quick and easy to add newer style UI features, such as sidebar folders and embedded panels, to multiple application panels.



Wizard Creation Wizard

- The **Wizard Creation Wizard** automates the creation of wizards for complicated tasks in your application by creating a basic program along with the associated panels.



Install Windows Services

- The **Install Windows Services** utility combines five utility programs into one program, allowing multiple instances of the same service type to be defined.



Additional Resources

The help link(s) below refer to the current on-line help pages. The functionality may have been further updated since the PxPlus 2016 (version 13) release.

- [Online Update](#)
- [Project Maintenance](#)
- [Library Object Selection – Menu Options](#)
- [Panel Layout \(Conversion\)](#)
- [Wizard Creation Wizard](#)
- [Install Windows Services](#)

