Increase Productivity: Five PxPlus Utilities

PxPlus 2016 (v13)

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Agenda

Online Update

Maintain Projects Utility

Panel Conversion Utility

Wizard Creation Wizard

Install Windows Services

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Online Update

Keep your PxPlus install up-to-date

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Online Update

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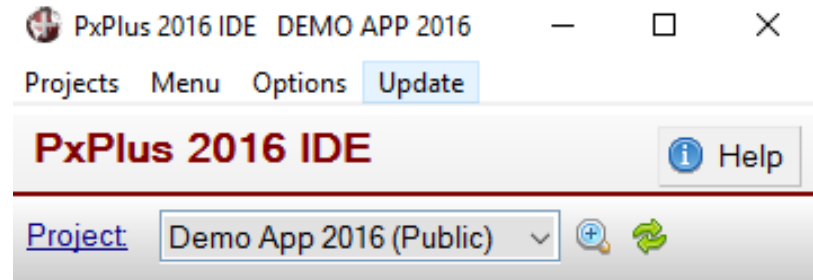 - Help files

- Introduced just after PxPlus 2014

PxPlus 2014.01

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Online Update

- Client/Server environment
  - Run on server
  - WindX workstations

- Access Online Update
  - IDE menu bar
  - PxPlus command prompt
    - Type: updates

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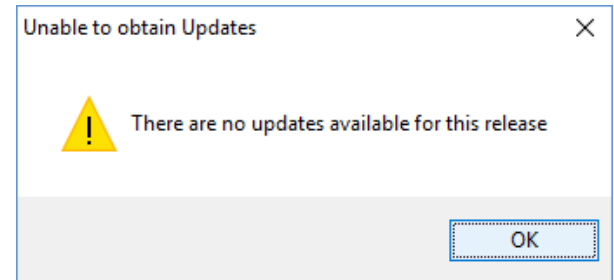# Online Update – Getting Started

- 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

Unable to obtain Updates

⚠ There are no updates available for this release

OK

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Update Manager Screen

- Displays updates available for PxPlus version

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

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Update Manager

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

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

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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.

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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

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Maintain Projects Utility

Add multiple tasks to projects by batch

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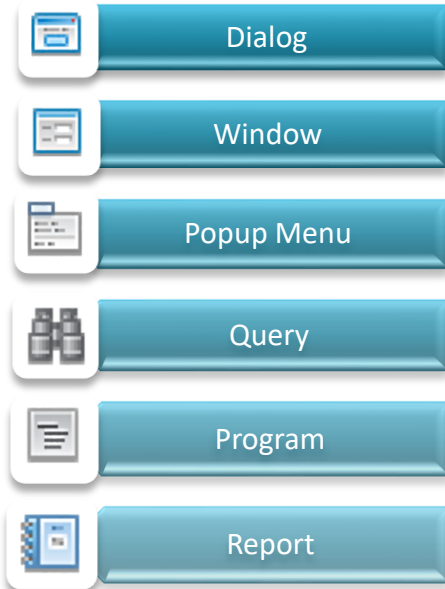# Quick Review of Projects

- 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

PROJECT

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Adding Tasks to Projects

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

Dialog
Window
Popup Menu
Query
Program
Report

PxPlus 2014 FP1
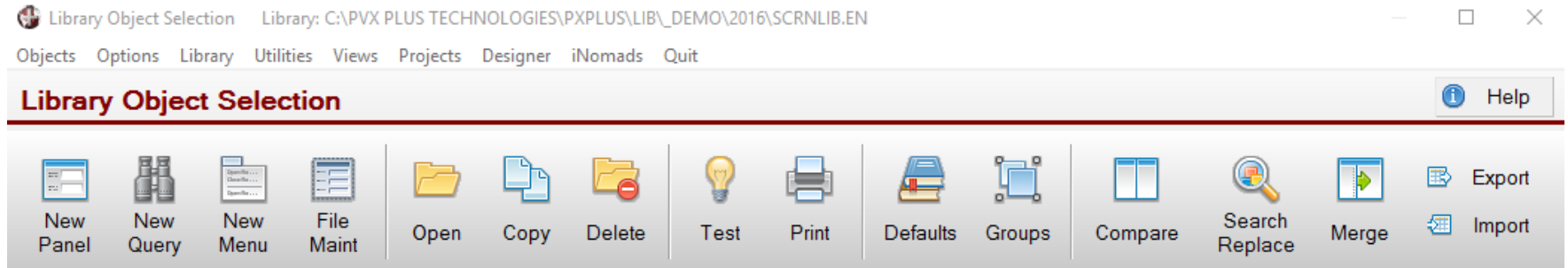
Data Files
Data Dictionary Entries

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Library Object Selection

- Library Object Selection panel in NOMADS

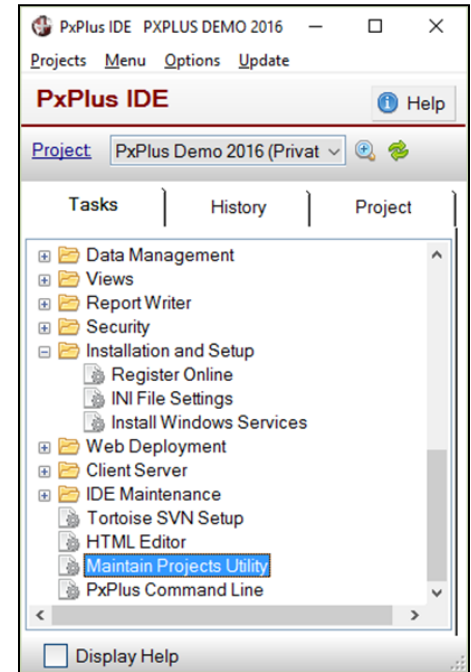 - Add multiple library objects to a project all at one time

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

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Maintain Projects Utility Screen

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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.

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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
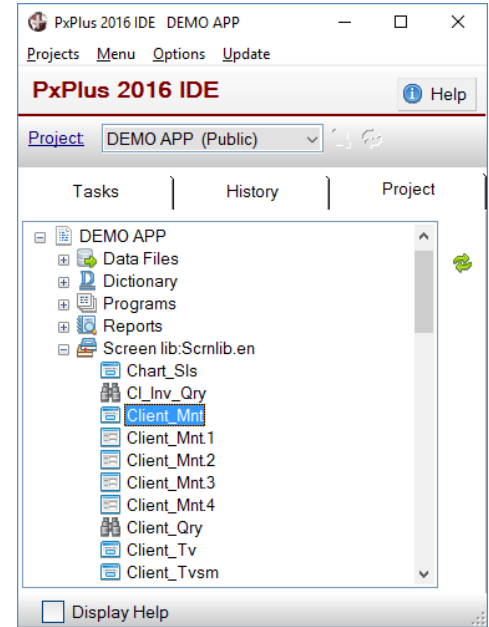
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Panel Conversion Utility

Give your application a makeover

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Before Example

- File Maintenance for Client Master File
  - Before

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After Example

- File Maintenance for Client Master File
  - After

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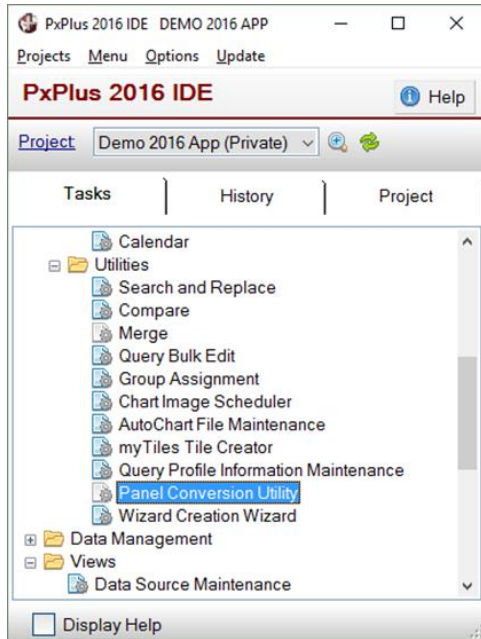
- Apply panel layout changes to multiple NOMADS panels simultaneously
  - One particular library
  - Multiple libraries within the same directory
- 'Conversion' is totally *optional*
- Accessed from
  - IDE
  - NOMADS Utilities menu

PxPlus 2014 FP1

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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

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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

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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$

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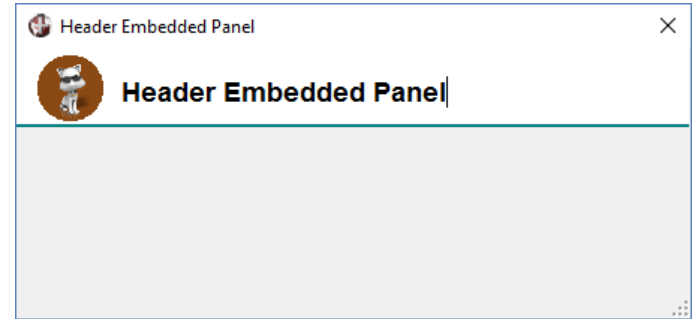
Preparation – Panels with Folders

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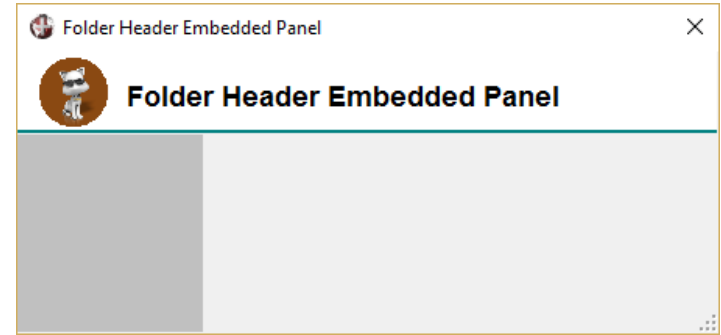
  - Same as **HEADER** but with an extra side rectangle

- 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

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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

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Panel Conversion Utility Screens

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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

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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

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Wizard Creation Wizard

Create a wizard like magic

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Wizard Definition

- What's a Wizard?

Wikipedia article screenshot:

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.

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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
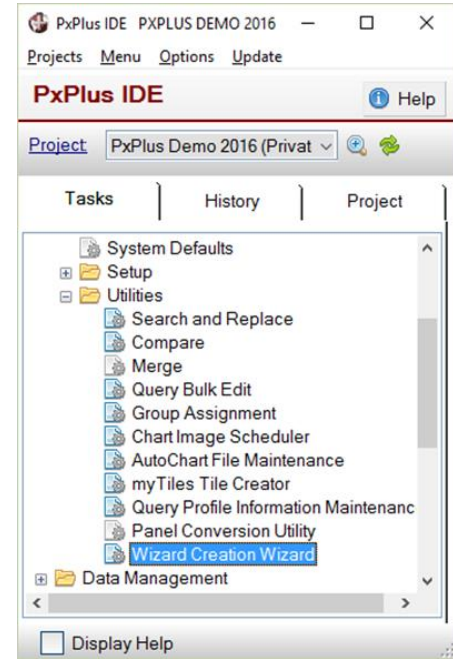
Wizard Creation Overview

- Welcome Screen

- Steps

- Finish

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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

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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

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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 tabless folders*)
  - Creates basic program and screens
  - Provides consistent 'look and feel' for all wizards created

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Install Windows Services

Install multiple instances of a Windows Service

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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

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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
->
```

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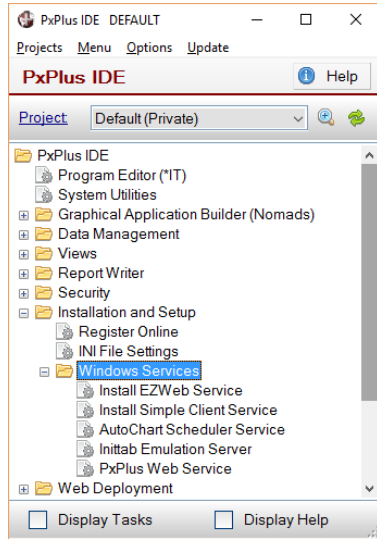# Windows Services in Version 2014

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

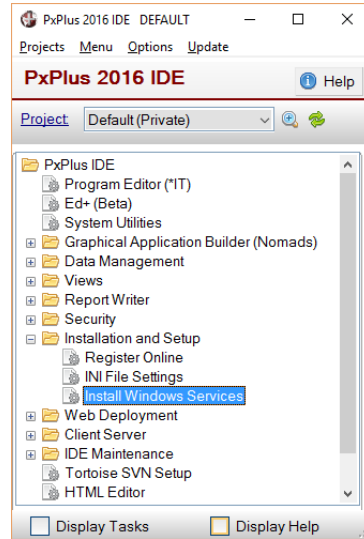**DireXions 2016**
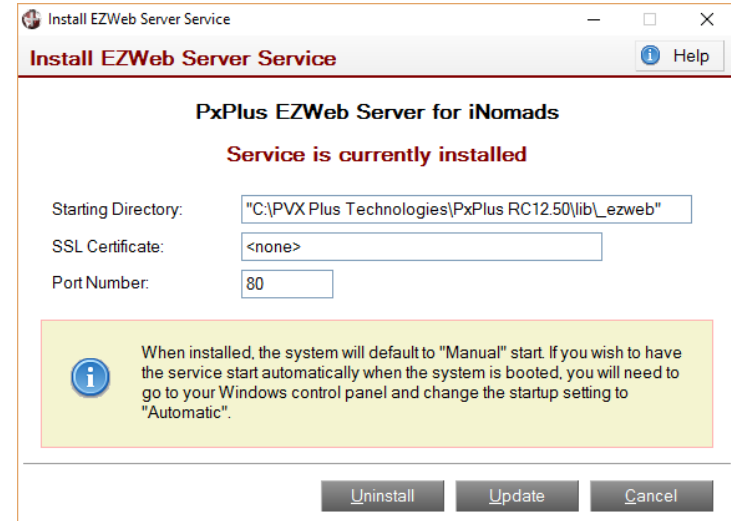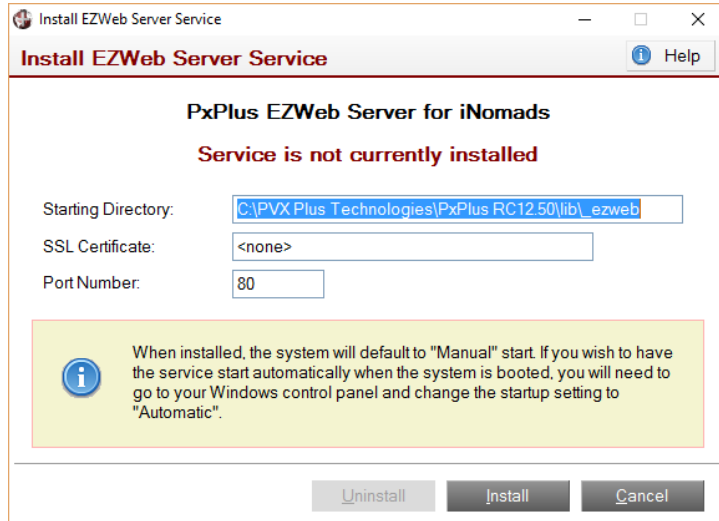
Windows Services on IDE Launcher

PxPlus 2014

PxPlus 2016

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

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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

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Install Windows Services Screen

Review

What have we learned about PxPlus Utilities?

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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.

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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.

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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.

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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.

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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.

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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

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