

What's New in the Toolkit

PxPlus 2017 (v14) & PxPlus 2018 (v15)

What's New in the Toolkit

Agenda

- IDE Enhancements
- Library Bulk Edit
- Ed+ Program Editor
- Projects
- Data Mirroring Configuration
- WindX Get_File_Box
- Web Services



- What was added to the **I**ntegrated **D**evelopment **E**nvironment?
 - 'About' dialog displays detailed licensing information
 - Info tip on IDE History and Project tabs for task types icons
 - Logical file name added to System Utilities file information display

New Functionality

- User interface and usability enhancements
 - Themes
 - Visual Classes
 - Side Bar Folders
 - *i*Nomads Classes
 - *i*Nomads Templates
 - Custom Title Bar
- Developed utilities to make implementation easier

Utilities

- Updated utilities
 - Panel Layout
 - Assign Visual Classes
- New utilities
 - Library Bulk Edit
 - Data Mirroring Configuration
- Easier to apply settings
 - System wide
 - Library defaults
 - Panel header



2017

Library Bulk Edit

Library Bulk Edit

2017

- Similar to Panel Bulk Edit in NOMADS designer
- Allows changes to controls by panel and by library
 - Speeds up development time
 - Select panels or type of controls to change
 - Changes done in a more consistent manner
- Even greater functionality
 - Change panel headers properties
 - Change library defaults properties

2017
Online
Update 2

Library Bulk Edit

- Accessing Library Bulk Edit

Location	Item	Options
IDE	Graphical Application Builder (Nomads)/Utilities	Ability to enter Directory or Library
NOMADS	Utilities Menu	Ability to enter Directory or Library
Library Object Selection	Utilities Menu	Only the current NOMADS library is available for edit

Using Library Bulk Edit

- Four main areas

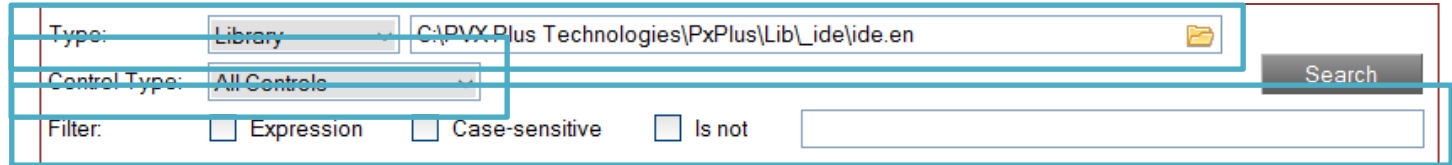
The screenshot shows the PVX Plus Library Bulk Edit application window. The interface is divided into several sections:

- What to Edit:** Located at the top right, this area contains the search and filter controls. It includes a 'Type' dropdown set to 'Library', a file path 'C:\Biz-Apps orig\prog\gl\gl_account.en', a 'Control Type' dropdown set to 'All Controls', and checkboxes for 'Expression', 'Case-sensitive', and 'Is not'. A 'Search' button is also present.
- Control Selection:** Located on the left side, this area displays a tree view of the selected controls. The tree is expanded to show 'DMAIN: 1: Accounting' with sub-items like 'ACCOUNTCATEGORYRID', 'ACCOUNTGROUPRID', 'BOXES_1', 'BOXES_2', 'FONTED_TEXT_1', 'FONTED_TEXT_2', 'FONTED_TEXT_3', 'MAINACCOUNTNO', and 'MAINSEGMENTDESC'. Below the tree are 'Collapse', 'Reset', and 'Select All' buttons.
- Properties To Edit:** Located on the right side, this area displays a table of properties to be edited. The table has two columns: 'Property' and 'Value'. The properties are grouped into 'Events', 'Coordinates', and 'Display'. The 'Background Loading' property is currently selected.
- Panel Completion Buttons:** Located at the bottom right, this area contains the 'Ok', 'Apply', 'Clear', and 'Exit' buttons.

A yellow warning banner at the bottom left of the window states: "Panel changes cannot be reversed. Ensure a proper backup exists."

Library Bulk Edit

What to Edit



The screenshot shows a search interface with the following elements:

- Type:** A dropdown menu set to "Library" and a text input field containing "C:\PVX Plus Technologies\PxPlus\Lib_ide\ide.en".
- Control Type:** A dropdown menu set to "All Controls".
- Filter:** Three checkboxes: "Expression" (unchecked), "Case-sensitive" (unchecked), and "Is not" (unchecked). A text input field is positioned to the right of these checkboxes.
- Search:** A grey button labeled "Search" is located to the right of the text input field.

- Type
 - Library (single library)
 - Directory (multiple libraries)
 - Select sub directories
 - Multiline with browse option
- Control Type
 - All controls
 - Individual control types
 - Panel header
 - Library defaults
- Filter
 - String value for search
 - Case sensitive
 - "Is not" capability
 - Expression



2018



2017
Online
Update 2

Library Bulk Edit

- Filter examples

Type: Library C:\PVX Plus Technologies\PxPlus\Lib\ide\ide.en

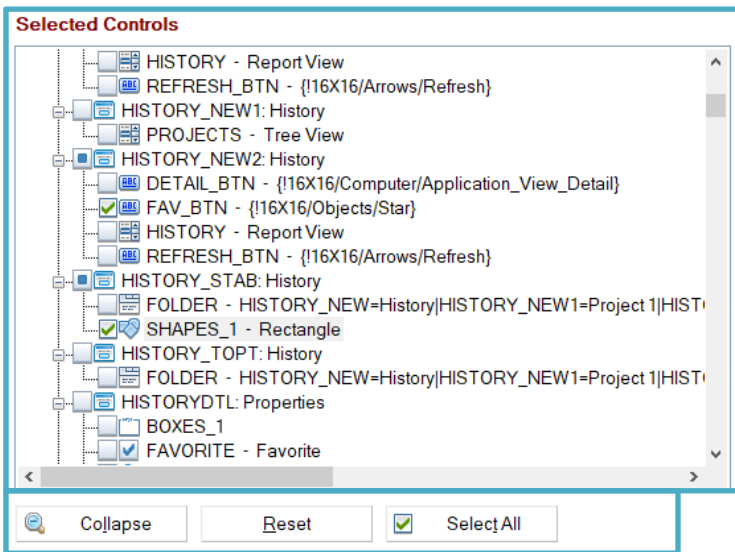
Control Type: All Controls Search

Filter: Expression Case-sensitive Is not

Control Type	Expression	Case Sensitive	Is Not	Search Value	Findings
All	No	Yes	No	BT_	All controls with uppercase BT_
Button	No	No	No	{!	All Button controls with bitmaps
Button	No	No	Yes	{!	All Button controls with no bitmaps
Multi-Line	Yes	N/A	N/A	POS("L"=_OBJ_STSS)	All Multi-line controls with the Locked attribute set
Fonted Text	Yes	N/A	N/A	_OBJ_VISUAL_CLASS\$ <>"CUST"	All Fonted Text controls not using the CUST visual class

Library Bulk Edit

Selected Controls



- Selected Controls
 - Displays all controls matching filter values entered
 - Sorted by library and panel name
 - Bitmaps used to show control type
 - Displays control names
 - Checkbox to select controls, panel or entire library
 - Right click to access panel or library in Nomads designer (PxPlus 2018)
 - Added more detail about the control (PxPlus 2018)
- Collapse/Expand toggle
- Reset
- Select All/Deselect All toggle

Library Bulk Edit

Properties to Edit

Property	Value
Events	
Background Loading	As is
Load On Demand	As is
On Change	As is
On Focus	As is
Post Create	As is
Prior Create	As is
Coordinates	
Height	As is
Width	As is
Display	
Implied Decimal	As is
Input Format	As is
Input Length	As is

Clear Properties

Properties to Edit

- Same grid as Panel Bulk Edit Utility
- Only lists properties for selected control type
- Tool tip displays variable name in PxPlus 2018



Clear Properties button

- Clears all changes made to property grid

Library Bulk Edit

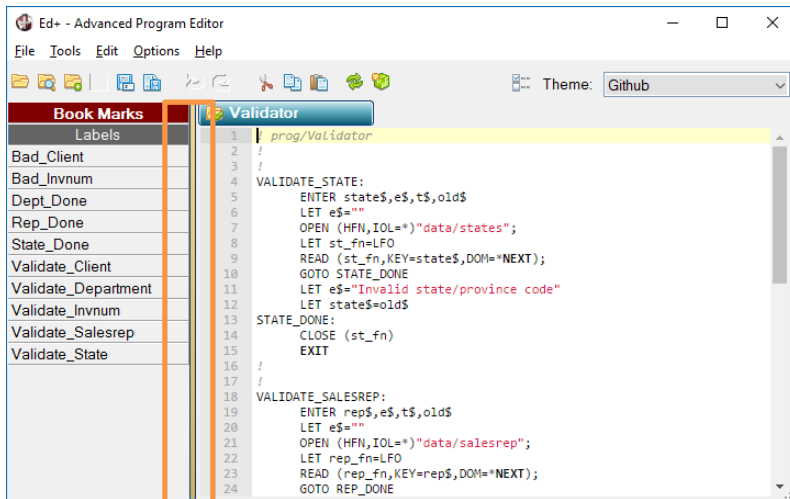
Panel Completion Buttons

- Ok button
 - Process changes and exits utility
- Apply button
 - Process changes
 - Does not clear screen values
 - Allows users to continue with more changes
- Clear button
 - Clears all screen values
 - Starts over without exiting



Ed+ Program Editor

Ed+ Program Editor



- Introduced in PxPlus 2016
- Can be used on the Desktop or Browser
- No longer in Beta
- New slider button between bookmarks and program area
- Print capability
- Keyboard shortcuts
 - F4 closes current tab/program
 - CTRL-O opens Get_File_box

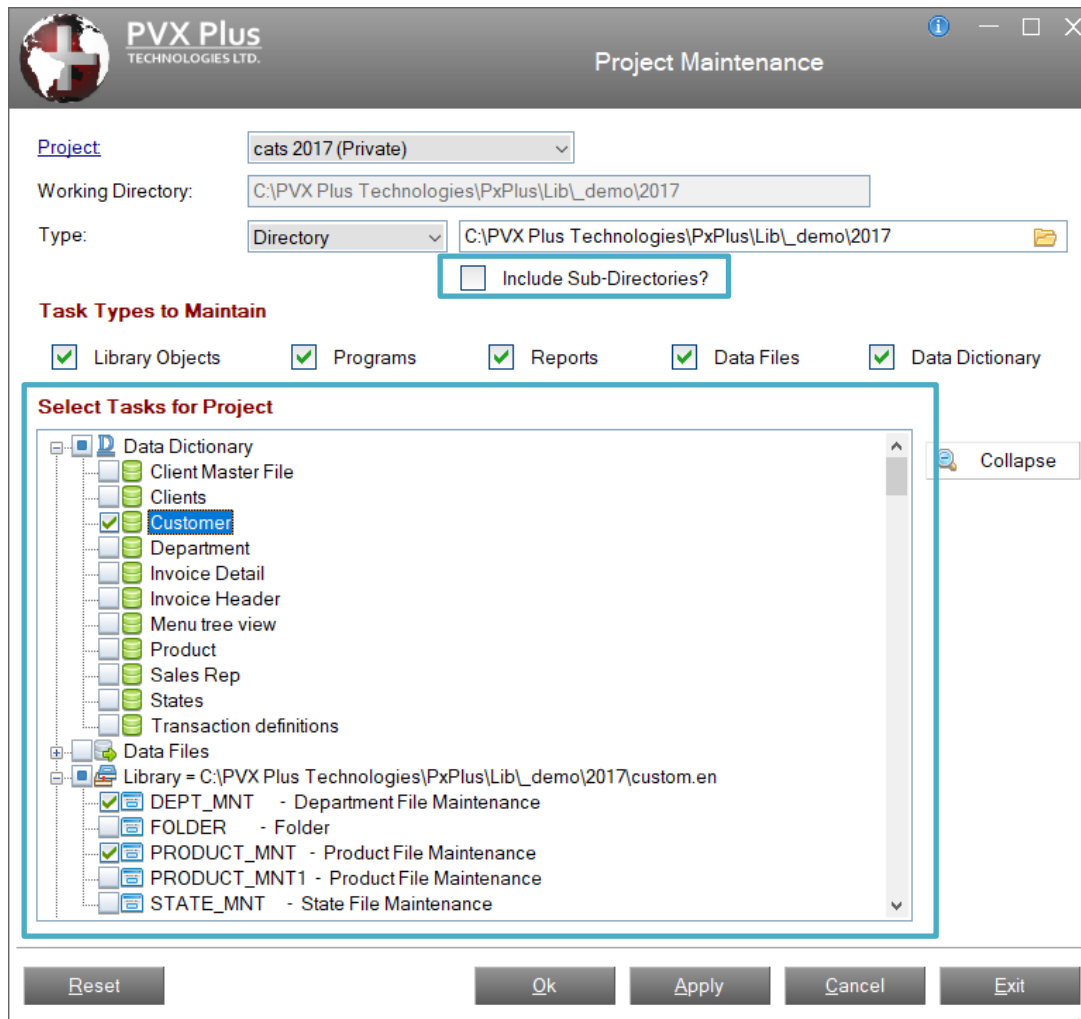
2017

Projects

Projects

- PxPlus 2014 introduced projects
- A project is a collection of tasks - objects, programs and files
- Working directory added to a project
 - Ensures the correct working environment by running any **Start_Up** program present in the working directory
- Private or Public
- Tasks can be added to a project individually

Projects



- Add tasks 'en masse' with Project Maintenance (formerly named Maintain Projects Utility)
- Added option to 'Include Sub-Directories'



Projects

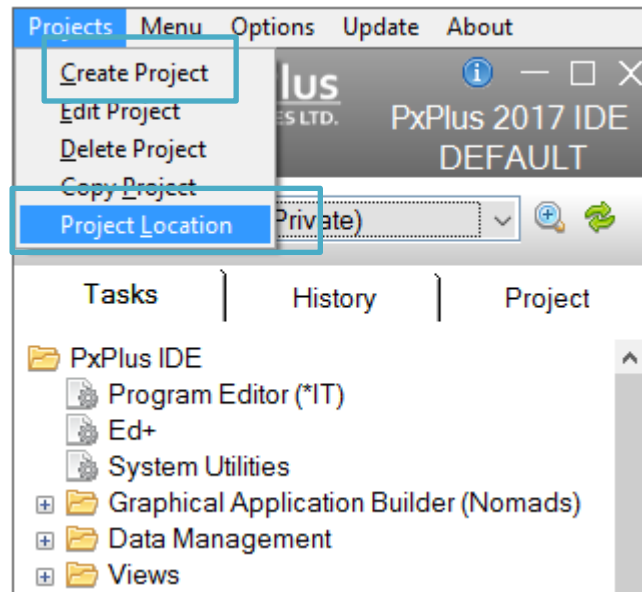
- Projects are supported by two files
 1. wkids.dat
 2. wkseq.dat
- Reside in the *plus/proj directory
- Projects had to be created again with each new release
- Ability to move to projects to a new location
- Option to retain location on a new release

2017

NOTE: As of PxPlus 2023, project information is no longer retained in wkids.dat and wkseq.dat. Please refer to Additional Resources for the latest on-line help links.

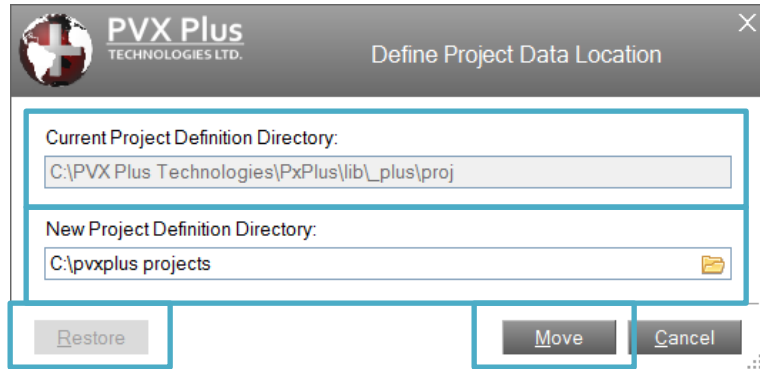
Projects

- Accessed from the Project menu of the IDE menu bar
- Project Location



NOTE: As of PxPlus 2023, Project Location menu item is no longer available. Please refer to Additional Resources for the latest on-line help links.

Define Project Data Location



- Simple dialog to enter new project location
- Displays current project location
- Entry of new project location
- Once moved it creates link files in *plus/proj and updates NOMADS.ini file
- Restore will move projects files back to original default location

NOTE: As of PxPlus 2023, Define Project Data Location dialog is no longer available. Please refer to Additional Resources for the latest on-line help links.

Data Mirroring Configuration

Data Mirroring

- Introduced in PxPlus 2014
 - Orlando Conference
 - Workshop at Toronto Conference in 2016
- Allows file updates to be replicated on:
 - Different systems
 - Different files
 - External databases
- File System Journalization is a pre-requisite
 - System Journals are used to transport and re-apply the data

Why Use Data Mirroring?

- Create “Hot Standby” copy of data in case of failure
- Create central repository for branch operations
- Load external database for reporting and data analysis purposes

How Does Data Mirroring Work?

- Application updates live data files
- Primary computer uses system journal to record updates
- Background processes transfer journal files to remote site(s)
- Remote site(s) run a re-apply utility to replicate data
 - Multiple remote sites can receive and apply journals

Data Mirroring Process Types

- Each 'instance' uses three processes:
 - **Send, Receive** and **Apply**
- Processes are configured via a text file
- Processes run in the background
 1. ***plus/jrnl/send** runs on originating machine
 - Sends the journal files to a receiving machine
 2. ***plus/jrnl/recv** runs on receiving machine
 - Receives the journals and recreates them
 3. ***plus/jrnl/apply** runs on receiving machine
 - Applies the journal contents to the data files

Data Mirroring Configuration

2017

- User interface created in PxPlus 2017
 - Found under Data Management on the IDE
 - Type **dm** at command prompt
- Simplifies creation and maintenance of Start, Receive and Apply processes
- ‘At a glance’ view to monitor setup and status of each process
- Easily start, pause or halt any process
- Logs to help troubleshoot should a problem arise
- No longer need to maintain text files for each process

2018

Using Data Mirroring Configuration

- Four main areas:

The screenshot shows the PVX Plus Data Mirroring Configuration application window. The window title is "PVX Plus TECHNOLOGIES LTD. Data Mirroring Configuration". The main area contains a list of mirroring configurations with traffic light status indicators. The configurations are:





Description	Status
Server: CORPORTATETORONTO Receive - Toronto Active Home Dir: C:\PVX Plus Technologies\Workshop 2016\Mirror Configuration File Name: recv.conf	Active (Green)
Server: SALESBOSTON Send - Sales Boston Stopped Home Dir: C:\PVX Plus Technologies\DireXions 2016 Configuration File Name: send.conf	Stopped (Red)
Server: SALESOFFICECALGARY Send - Calgary Sales Office Active Home Dir: C:\PVX Plus Technologies\Workshop	Active (Green)
Server: SALESTOLEDO Send - Sales Toledo office Stopped Home Dir: C:\PVX Plus Technologies\PxPlus 2017 Configuration File Name: send.conf	Stopped (Red)
Server: TORONTODATA Apply - Toronto Data Paused Home Dir: C:\PVX Plus Technologies\Workshop 2016\Mirror Configuration File Name: apply.conf	Paused (Yellow)

Callouts identify four main areas of the interface:

- Process Status 'At a Glance'**: Points to the list of mirroring configurations.
- Process Control**: Points to the Start, Pause, Resume, and Halt buttons.
- Logs**: Points to the View Log button.
- Maintenance**: Points to the New, Edit, Delete, and Exit buttons at the bottom.

Data Mirroring Configuration





Process Status Grid

Description	
	Server: CORPORTATETORONTO Receive - Toronto Stopped Home Dir: C:\PVX Plus Technologies\Workshop 2016\Mirror Configuration File Name: recv.conf
	Server: SALESBOSTON Send - Sales Boston Active Home Dir: C:\PVX Plus Technologies\Workshop 2016\Cats2016
	Server: SALESTOLEDO Send - Toledo Office Stopped Home Dir: C:\PVX Plus Technologies\Workshop 2016\Cats2016 Bad\Data
	Server: TORONTODATA Apply - Toronto Data Paused Home Dir: C:\PVX Plus Technologies\Workshop 2016\Mirror Configuration File Name: apply.conf

- Displays all processes created
- Easy to view process status by color of traffic light image
- Displays additional detail for each process
 - Name, process type, status, home directory & configuration file name
- Right click capability to change status
- Selecting row will enable/disable control buttons based on process status

Data Mirroring Configuration

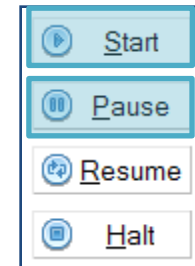
- Process Statuses

	Status	Description
	Stopped	The process is currently not running
	Paused	The process is currently paused
	Active	The process is currently running
	Connecting	The process is currently waiting to connect

Data Mirroring Configuration

Process Control

- Process control buttons enabled/disabled based on process status
- **Start**
 - Starts background process for the type
 - Turns process status to green once connected
- **Pause**
 - Pauses the process
 - Turns process status to yellow



Data Mirroring Configuration

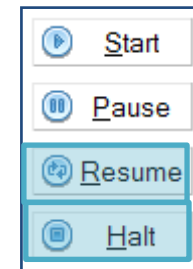
Process Control

- **Resume**

- Re-starts a paused process
- Turns process status to green once re-connected

- **Halt**

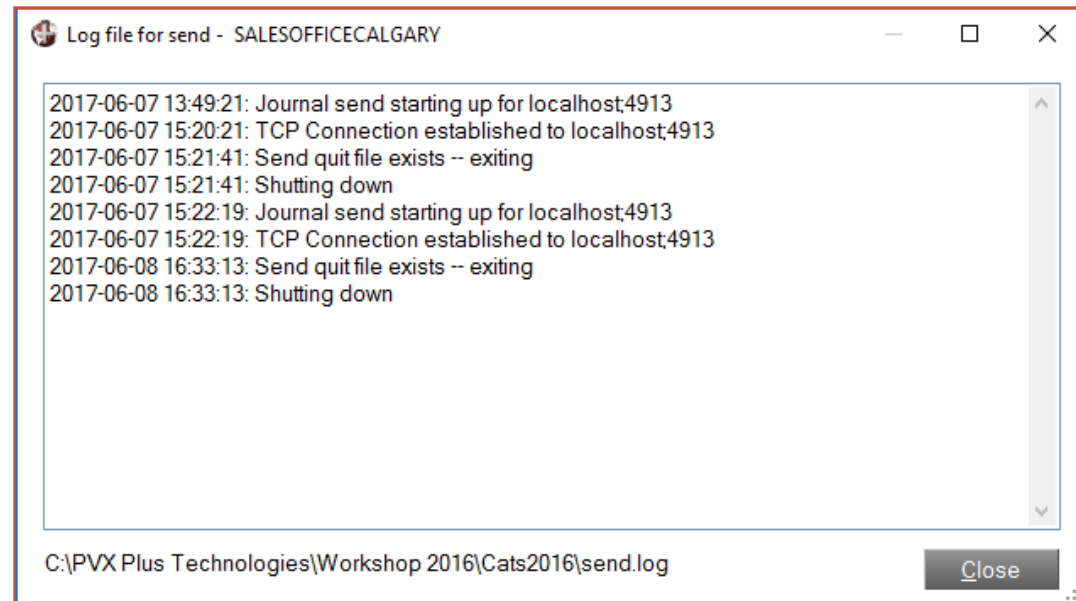
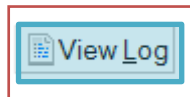
- Halts process
- Turns process status to red
- Releases background process



Data Mirroring Configuration

View Log

- Displays log for selected process



- Useful to troubleshoot issues

Data Mirroring Configuration

Maintenance



- **New**

- Create new process type
- Create process configuration text files

- **Edit**

- Edit a process and configuration text files
- Can only edit a process that is not running

- **Delete**

- Deletes a process
- Can only delete a process that is not running
- Optionally delete all configuration and log files

Data Mirroring Configuration Files

Adding/Maintaining Processes

- Accessible from **New/Edit** process buttons



A screenshot of a Windows dialog box titled "Data Mirroring Configuration - New Process". The dialog contains the following fields and controls:

- Mirror ID: SALESOFFICESEATTLE
- Process Type: Send (dropdown menu)
- Description: Seattle Sales Office
- Home Directory: C:\PVX Plus Technologies\Workshop 2016\Cats2016 (with folder icon)
- Configuration File Name: send.conf (with a file icon icon)

At the bottom of the dialog are three buttons: Write, Clear, and Exit.

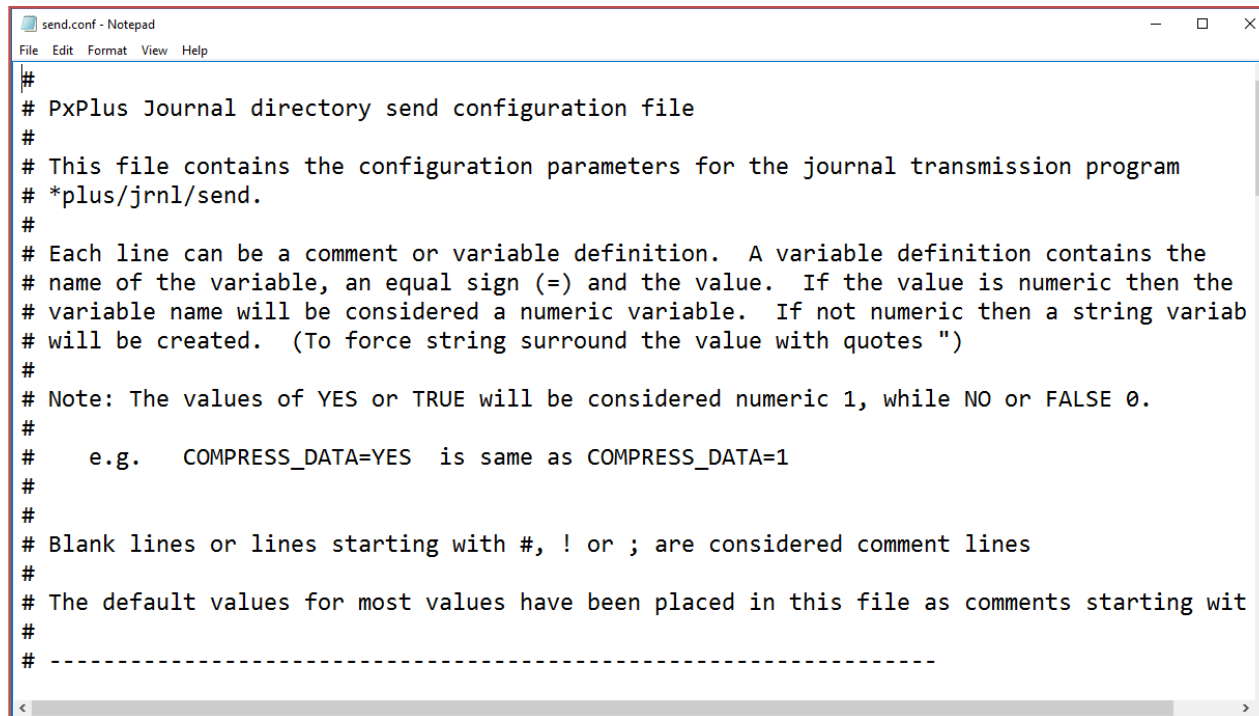
Data Mirroring Configuration Files

- Each process type has a number of settings
- **Send** example:

PVX Plus TECHNOLOGIES LTD.		Send - SALESBOSTON - send.conf	
General Information	Directory to Hold Journal Files: <input type="text" value="jmls"/>	Log File Name for Error Messages: <input type="text" value="send.log"/>	ID to Uniquely Identify Control Files: <input type="text" value="send"/>
	Compress Data Being Sent: <input checked="" type="checkbox"/>		
Connection Information	IP Address / Name of Target System: <input type="text"/>	Port: <input type="text" value="4913"/>	
	TCP Options: <input type="text"/>		
	Password: <input type="text"/>		
	Seconds Before Checking for New Data: <input type="text" value="5"/>	Seconds Before Re-connect Attempt: <input type="text" value="30"/>	
	Seconds Before Checking Connection is Active: <input type="text" value="30"/>	Seconds Before Considering Response Lost: <input type="text" value="10"/>	
Notification Information	Email Address for Error Reporting: <input type="text"/>		
	SMTP Server: <input type="text"/>		
	Email From Address: <input type="text"/>		
<input type="button" value="View File"/>		<input type="button" value="Save"/>	<input type="button" value="Cancel"/>

Data Mirroring Configuration Files

- View file button displays the text configuration file for the process



```
send.conf - Notepad
File Edit Format View Help
#
# PxPlus Journal directory send configuration file
#
# This file contains the configuration parameters for the journal transmission program
# *plus/jrnl/send.
#
# Each line can be a comment or variable definition. A variable definition contains the
# name of the variable, an equal sign (=) and the value. If the value is numeric then the
# variable name will be considered a numeric variable. If not numeric then a string variab
# will be created. (To force string surround the value with quotes ")
#
# Note: The values of YES or TRUE will be considered numeric 1, while NO or FALSE 0.
#
#   e.g.   COMPRESS_DATA=YES   is same as COMPRESS_DATA=1
#
#
# Blank lines or lines starting with #, ! or ; are considered comment lines
#
# The default values for most values have been placed in this file as comments starting wit
#
# -----
```

Data Mirroring Configuration Files


- View file button displays the text configuration file for the process

PVX Plus
TECHNOLOGIES LTD.

Send - SALESBOSTON - send.conf

General Information

Directory to Hold Journal Files:

Log File Name for Error Messages:  ID to Uniquely Identify Control Files:

Compress Data Being Sent

Connection Information

IP Address / Name of Target System: Port:

TCP Options:

Password:

Seconds Before Checking for New Data: Seconds Before Re-connect Attempt:

Seconds Before Checking Connection is Active: Seconds Before Considering Response Lost:

Notification Information

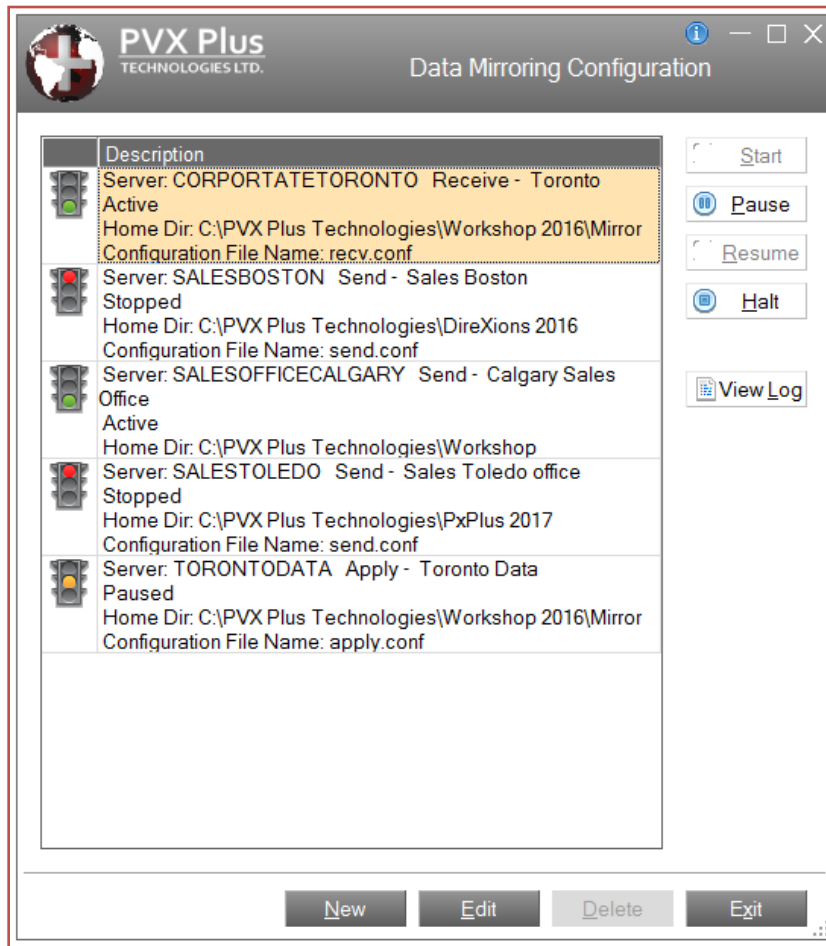
Email Address for Error Reporting:

SMTP Server:

Email From Address:

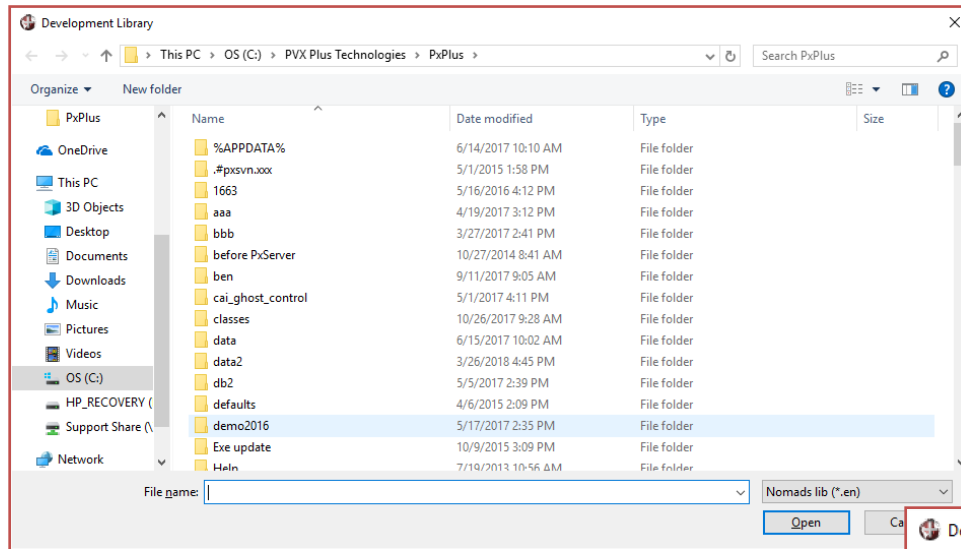
Data Mirroring Configuration

Demo

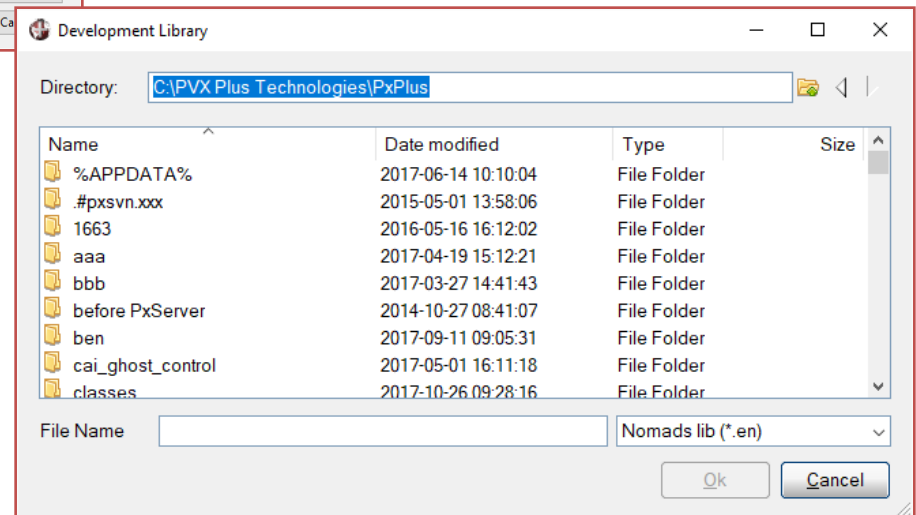


WindX Get_File_Box

Get_File_Box (WindX/iNomads)

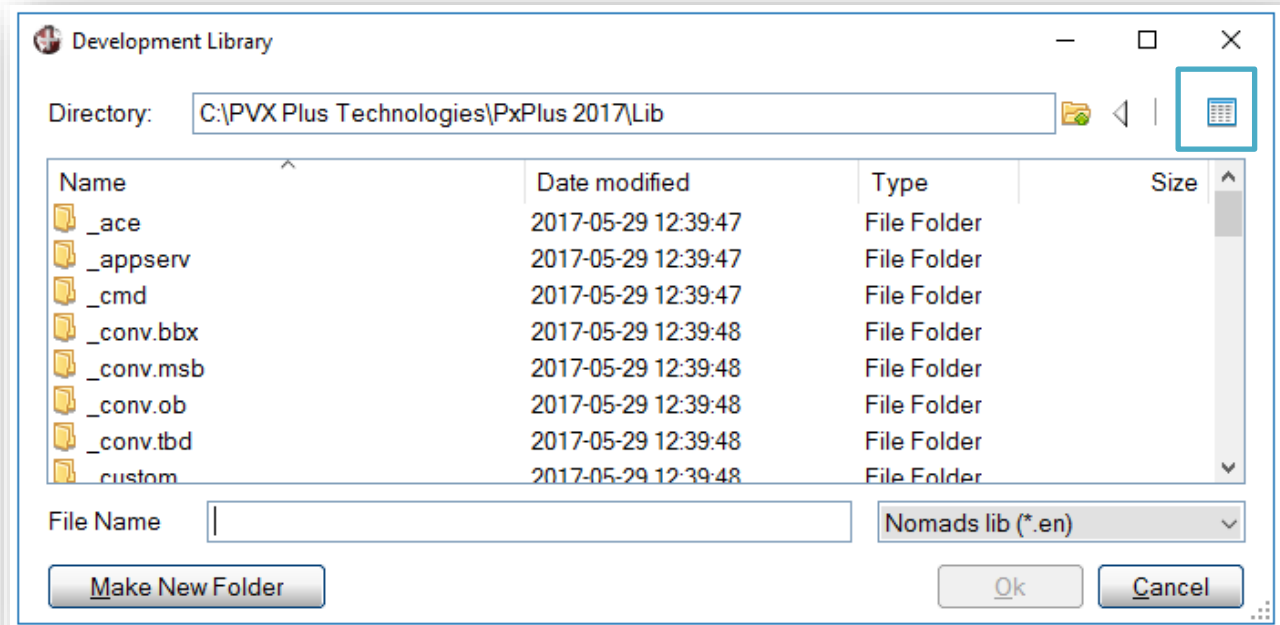


- Emulating Windows Get_File_Box
- Re-designed in PxPlus 2014 Feature Pack 1



Get_File_Box (WindX/iNomads)

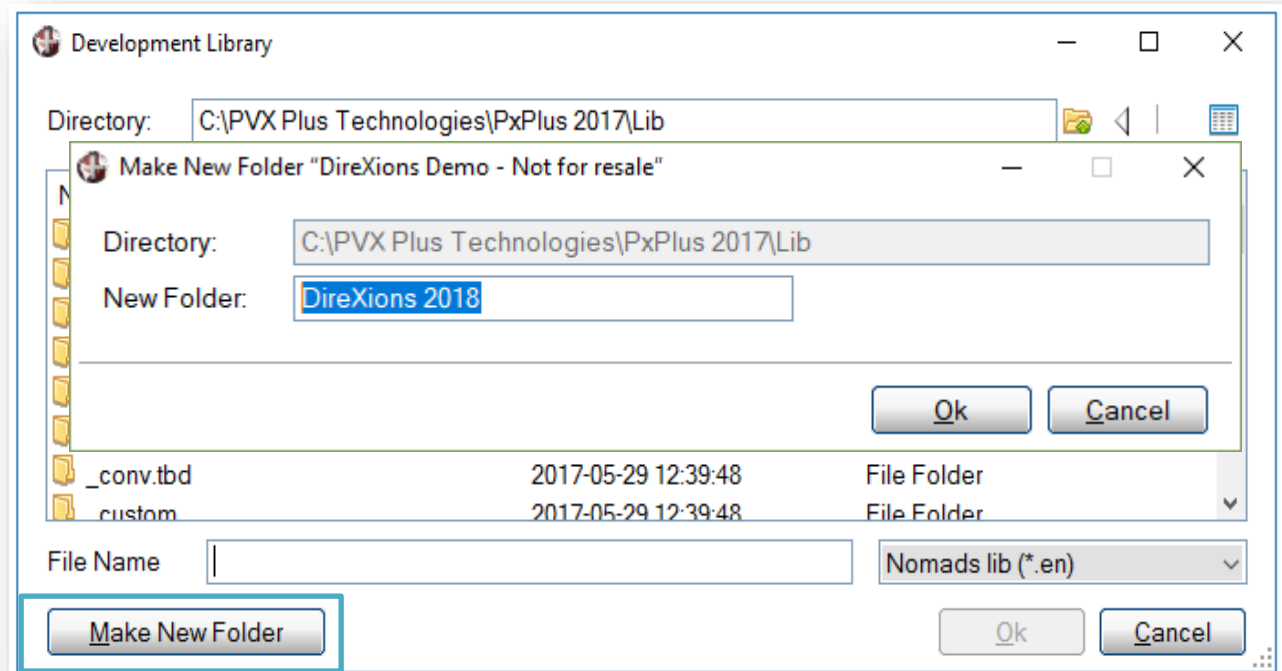
- Usability enhancements
 - **View button**
 - Toggles between detail and summary view



Get_File_Box

2017

- Added **Make New Folder** capability
 - Creates a new folder within current directory



DireXions 2018

Web Services

Web Services

2017

Enhancements

- Error reporting added to Web Services at run time
 - Added Cascading Style Sheet (CSS) capability for Maintenance Web Services
 - Ability to test Web Services when created
 - Web Services can be added as a task to the IDE Menu
 - New callable utility
- 2018
- Dashboard Setup and Customization
 - Session after lunch today

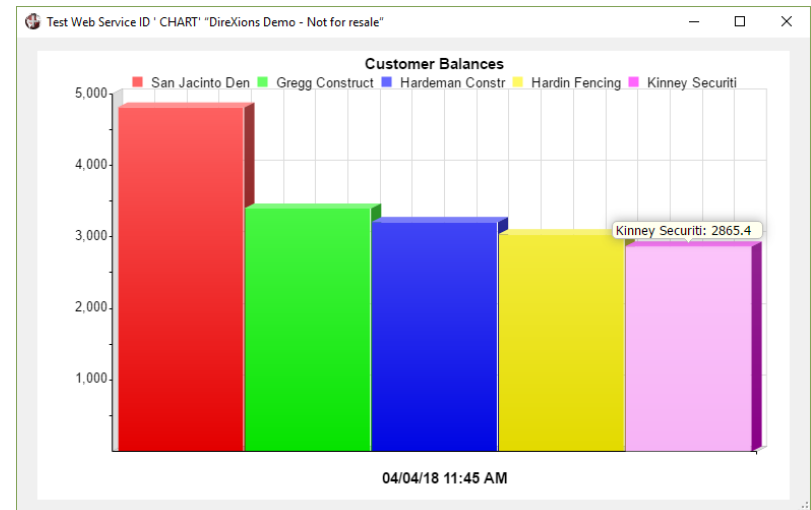
Testing a Web Service

Web Services Maintenance (PxPlus 2016)

The screenshot shows the 'Web Services Maintenance' window in PVX Plus. The 'Service ID' is 'BALANCES' and the 'Service Type' is 'Chart'. A table lists parameters for the 'Customer Balances' chart, including file paths for 'Dir' and 'Lib', and a 'Qry' of 'CLIENT_QRY'. The 'Type' is set to 'HTML'. At the bottom, there is a 'Test' button and other control buttons like 'Write', 'Delete', 'Clear', and 'Exit'.

Parameter	Value	Allow Override?
Title	Customer Balances	
Dir	C:\PVX Plus Technologies\Workshop 2016\Cats2\	<input type="checkbox"/>
Lib	C:\PVX Plus Technologies\Workshop 2016\Cats2\	<input type="checkbox"/>
Qry	CLIENT_QRY	<input type="checkbox"/>
Chart	balances	<input type="checkbox"/>
Width		<input type="checkbox"/>
Height		<input type="checkbox"/>
Type	HTML	<input type="checkbox"/>

- Test button 
- Starts EZWeb server
- Launches panel containing a *browser control – passing URL



Adding Web Service Task to IDE

Steps

1. Task Definition Maintenance

- Create the task

2. Menu Maintenance

- Add task to menu
- These 2 tasks are accessible from:
 - Menu on IDE menu bar
 - IDE Maintenance menu

Adding a Web Service Task

Task Definition Maintenance

PVX Plus TECHNOLOGIES LTD. Task Definition

Task Name: DEMO

Description: Invoice Query

Logic

Task type: Web Service

Project Related? Windows Only? PxPlus Task?

Display

Task for: Both Desktop and Web

Panel/Program id=QUERY


Parameter 1:

Parameter 2:

Parameter 3:

Parameter 4:

Save Delete Clear Exit

- New task type 
 - Web Service
- Panel/program
 - Web Service ID (same syntax as adding a widget on PxPlus Dashboard)
 - Full URL (http:// ...)

- Parameter 1 
 - Used with **id=** syntax to specify a Web Server other than localhost in format:
http://servername:port#

Adding a Web Service Task

IDE Menu Maintenance

Menu Entry: *MAIN* - Main Menu

System Transactions

TrxId	Description
APPL_CONF...	Configure Application
AUTO_CHA...	AutoChart File Mainte
AUTO_COMP	Auto Complete
CALENDAR	Calendar
CHART_SC...	Chart Image Schemul
COLORS	User Defined Colors
COMPARE	Compare
CS	Client Server
CVS_IMPORT	CSV Import
DASHBOARD	Dashboard Demo
DASH_CON...	Configure Dashboard
DATA_CLASS	Data Class Definition:
DATA_DICT	Data Dictionary Maint
DATA_FILE_...	Data File Password L
DATA_MGNT	Data Management
DATA_SOU...	Data Source Mainten...
DEMO	Invoice Query
EXPORT_I_M...	Export Menu Structur
EZWEB_LA...	Launch EZWeb Serv
FM	File Update Utility
GFB	Test Get File Box
GROUPS	Group Assignment

Transactions in Selected Menu

TrxId	Description
IT	Program Editor (*IT)
WEB_EDIT	Ed+
SYSTEM	System Utilities
NOMADS	Graphical Application B
DATA_MGNT	Data Management
VIEWS	Views
RW	Report Writer
SEC	Security
INSTALL_SE...	Installation and Setup
WEB	Web Deployment
CS	Client Server
IDE_MAINT	IDE Maintenance
SVN_SETUP	Tortoise SVN Setup
HTML_ED	HTML Editor
ONLINE_UP...	Online Update
MAINTAIN_P...	Project Maintenance
PXPLUS	PxPlus Command Line
DEMO	Invoice Query

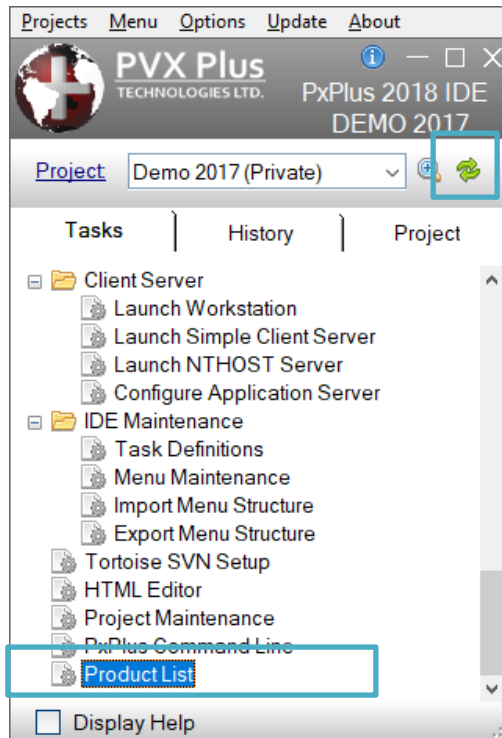
Buttons: Delete, Up, Down, Reset, Save, Close

- Select Transaction
- Select Menu
- Double-click or Drag to selected menu
 - Save

Adding a Web Service Task

IDE Menu

- Refresh Menu



The screenshot shows the 'Product List' web service output window. The window title is 'Product List'. The content displays a table with the following data:

Product Code	Description	Price	Std Cost
BUS-3110-VLW	Bus - Yellow	8.75	7.31
BUS-3111-CYN	Bus - Cyan	8.50	6.38
BUS-3112-VIO	Bus - Violet	10.00	7.50
BUS-3113-GRN	Bus - Green	8.25	6.19
BUS-3114-RED	Bus - Red	10.25	7.69
BUS-3115-BLU	Bus - Blue	8.25	6.19
CAR-1320-GLD	Safari Jeep - Gold	9.25	6.94
CAR-1321-CYN	Safari Jeep - Cyan	9.25	6.94
CAR-1322-VIO	Safari Jeep - Violet	9.50	7.13
CAR-1323-GRN	Safari Jeep - Green	8.75	6.56
CAR-1324-RED	Safari Jeep - Red	9.75	7.31
CAR-1325-BLU	Safari Jeep - Blue	9.00	6.75
CAR-1410-SLV	Bug - Silver	9.25	6.94
CAR-1411-ROS	Bug - Pale Rose	8.25	6.19
CAR-1412-SEA	Bug - Seagreen	8.00	6.00
CAR-1413-VIO	Bug - Violet	8.75	6.56
CAR-1414-PRL	Bug - Pearl	8.50	6.38
CAR-1415-WHT	Bug - White	9.00	6.75
CAR-2220-PNK	Cabriolet - Fuschia	9.00	6.75
CAR-2221-LME	Cabriolet - Lime	8.50	6.38
CAR-2222-CYN	Cabriolet - Cyan	8.25	6.19
CAR-2223-RST	Cabriolet - Rust	8.50	6.38
CAR-2224-VIO	Cabriolet - Violet	9.50	7.13
CAR-2225-SEA	Cabriolet - Seagreen	10.00	7.50
CAR-3120-RED	Camino - Red	9.25	6.94
CAR-3121-GRN	Camino - Green	8.25	6.19
CAR-3122-BLU	Camino - Blue	8.50	6.38
CAR-3123-YLW	Camino - Yellow	9.25	6.94
CAR-3124-VIO	Camino - Violet	9.75	7.31

- Title from Task Definition
- Also works in the Web IDE

*web/webservice

Callable Utility for displaying Web Services

- Allows Web Services to be displayed from within your application

```
CALL "*web/webservice",url$,title$,server$,errmsg$
```

Argument	Description
url\$	URL for web service
title\$	Title for dialog (if not from Web Service)
server\$	web server name in format http://servername:port# (only if using id=)
errmsg\$	returned error message

Some Examples

*web/webservice

- Display a web service locally

```
CALL "*web/webservice,"id=WEBID"
```

- On another web server

```
CALL "*web/webservice,"id=WEBID","title","http://server:8888"
```

- Display a web page

```
CALL "*web/webservice,"http://www.pvxplus.com","Web Page","",e$
```

- Display a dashboard

```
CALL "*web/webservice,"http://server:port#/services/dashboard"
```

Recap

- Library Bulk Edit
 - Quickly change controls, panels and library defaults properties
 - Filtering helps narrow down changes
 - Easy to apply to individual or multiple - controls, panels or library defaults
- Ed+ Enhancements
- Project Locations
 - Maintains your locations from release to release

Recap

- New Data Mirroring Configuration Utility
 - UI
 - Simplify Setup
 - Status 'At a Glance'
- New features for WindX GET_FILE_BOX
 - Detail/Summary Views
 - Make New Directory
- Web Services
 - New Test button
 - Can be added as tasks to the IDE Menu and/or the Web IDE Menu
 - *web/webservice

In Conclusion

What's New in the Toolkit

- We want you to take advantage of all the new features
- Strive to provide tools that will help you get your product to the next level sooner
- We are also developers
"We use all the tools"
- We love feedback - tell us what you need!



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 2018 (version 15) release.

- [Library Bulk Edit](#)
- [Ed+](#)
- [Projects & the IDE](#)
 - [Adding tasks to projects](#)
 - [Using Project Maintenance](#)
- [Data Mirroring](#)
 - [File System Journalization](#)
 - [Data Mirroring Configuration](#)
- [File Selection Dialog \(GET_FILE_BOX\)](#)
- [PxPlus Dashboard](#)
- [Web Services](#)
- [Web Services Maintenance](#)