

Rediscover the Development Toolkit

PxPlus 2016 (v13)



Major Topics

- IDE and IDE Enhancements
- Nomads Designer Enhancements
- Themes and Visual Classes
- New IDE Tasks
- *i*Nomads Support in Nomads
- Web IDE
- Dashboard and Web Services



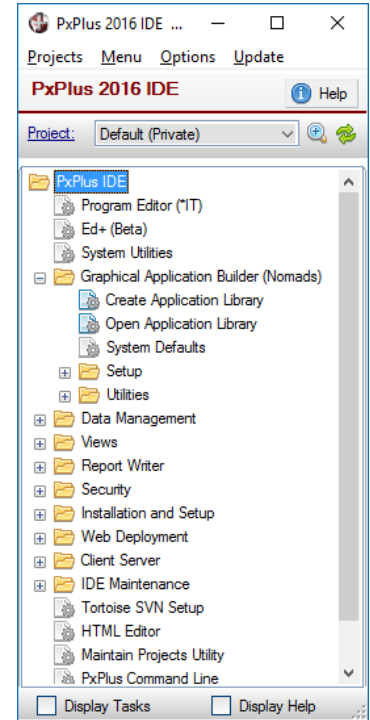
IDE

What is it and what was enhanced?



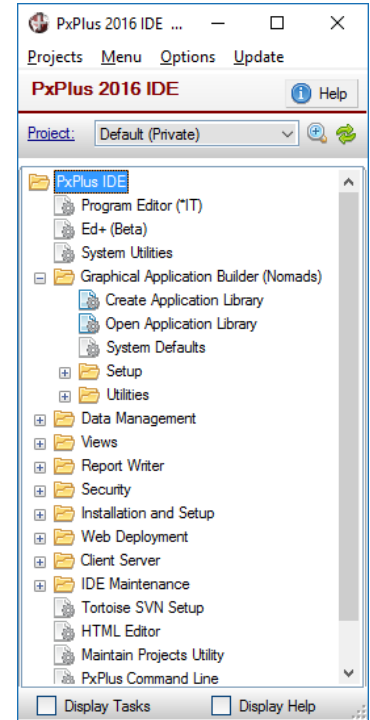
What is the IDE?

- Introduced in PxPlus 2014
- Created for developers
- Menu based containing all the PxPlus tasks
- Project based
- PxPlus tasks can be added to a project
- Easier to manage different projects (working directory)



What is the IDE?

- Customizable
- Display/Launch History tasks
- Display/Launch Project tasks
- Display Help for tasks
- Screen location persists



IDE Enhancements

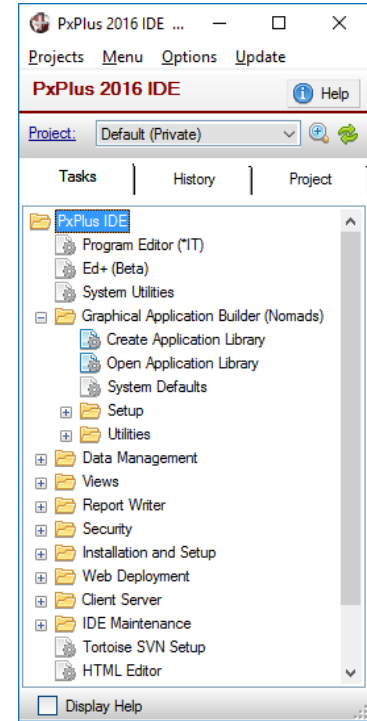
- Link to Online Updates
- Task menu persistence
- Hover tool tip over header to display serial number
- Hover tool tip over Project label to display working directory
- Hyperlink on Project label

PxPlus 2014 FP1



IDE Enhancements

- New task type in Tasks Definition
 - Desktop, web or both
- New Combine View option
 - Combines history/project dialog
 - Optionally set
- Add version to the header



NOMADS Designer Enhancements

What are the new enhancements?



NOMADS Designer Enhancements

- Enhanced NOMADS+ to display panel designer on top of NOMADS+ toolbar
- Improved the method of changing the tab sequence in the NOMADS+ toolbar
- SVN toolbar button in NOMADS+ toolbar grid
- Properties button on each row in the NOMADS+ toolbar grid

PxPlus 2014 FP1



NOMADS Designer Enhancements

- NOMADS+ introduced in PxPlus 2014
 - Hybrid of the Folder Style and Property Sheets designers



NOMADS Designer Enhancements

- New shortcut keys
 - CTRL+C, CTRL+V, CTRL+X, CTRL+Y, CTRL+Z
 - CTRL+D for creating a duplicate control with the same size, parameters and control type as the source control
 - CTRL+N for creating a new control using the currently selected control type AND with the same size as the source control



NOMADS Designer Enhancements

- Text and images to all button controls with focus
- Option to show tooltips
- Auto increment index when creating a radio button with the same name
- Control text justification on button type controls



Nomads Designer Enhancements

- Ability to specify column and row coordinates for an Embedded Panel
- Size indication for COM controls
- Enhanced display of all controls when on a Shape or Image control
- Ability to only enter program label with assigning a Query



Nomads Designer Enhancements

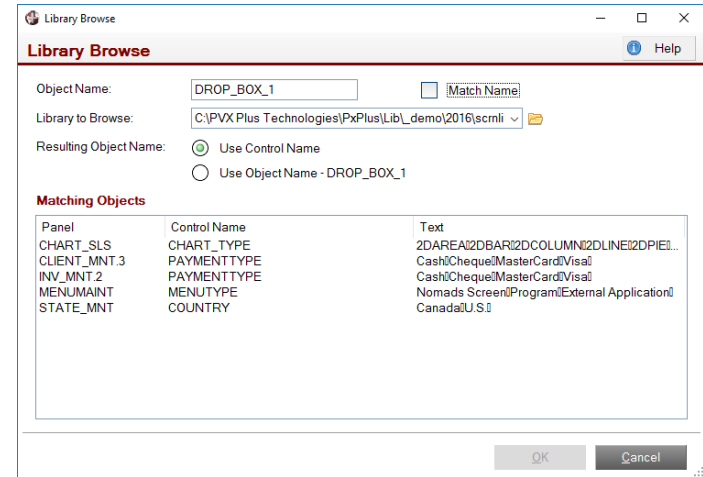
- REDO functionality
- Undo capability to revert any Header Panel changes
- Full Screen Dragging capability
- Increased the maximum screen sizes and enhanced control placement within expanded screens to 250 wide x 240 high



Nomads Designer Changes – Library Browse

- Enhanced Library Browse interface
- Create/Copy controls from other panels in the library

PxPlus 2014 FP1



Improved Grid Control Usability

PxPlus 2014 FP1

- Ability to select column names
 - Columns defined in Grid Format Definition
 - Grid Presets panel
 - Grid Cell Logic panel
- Improved Presets Panel usability
 - Changed column order
 - Property first column
 - Columns not applicable are disabled
 - Enter on drop box no longer closes panel



Improved Grid Control Usability

- New date formatting values in SortColFmt property in Grid presets
- Improved the usability and editing capability in the Grid Cell Logic panel
- Standardized grid entry throughout the entire toolkit



New Grid Button Cell Types

- Added new button cell types

PxPlus 2014 FP1

- `TextButton` - similar to *Button*, except that the text on the button adheres to the 'Align\$' property and will wrap
- `FlatTextButton` - button is flat and shows no visible change when clicked
- `FlatTextButtonInOnly` - button looks flat only when not depressed



New Grid Button Cell Types

- FlatButton - flat button that shows no visible change when clicked
- FlatButtonInOnly - button that looks flat only when not depressed



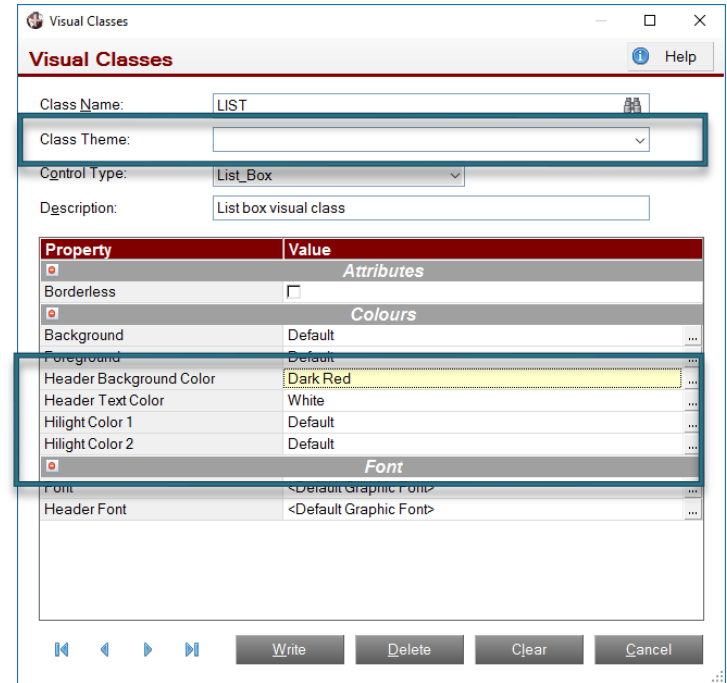
Themes and Visual Classes

How to effectively use them in your application



Themes and Visual Classes

- Renamed Templates to Themes
- Added Themes to Visual Classes
- Added Themes to *iNomads*
- New List View properties
 - Header Background Color
 - Header Text
 - Hilight Color 1
 - Hilight Color 2



New IDE Tasks

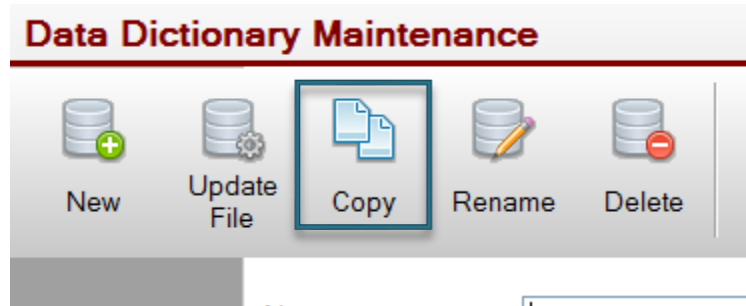
What was added and updated?



Data Management Enhancements

- Copy dictionary feature in Data Dictionary Maint
- Copy was difficult to use and find
- Added Copy button to ribbon bar

PxPlus 2014 FP1



- Invokes new Copy Dictionary dialog



Data Management Enhancements

● Copy Data Dictionary dialog

Copy Data Dictionary

Copy Data Dictionary From

Name: Client Master File

Description: Client Master File

Copy Data Dictionary To

Name: Contact Master

Description: Contact Master

Physical File: Fixed Expression

Copy Elements

Ok Exit

● Copy from current data dictionary record

● Choose to copy data elements



Enhanced EZWeb Server Functionality

- Ability to launch multiple times and save a specific port number



- Easier shutdown capability through the system tray



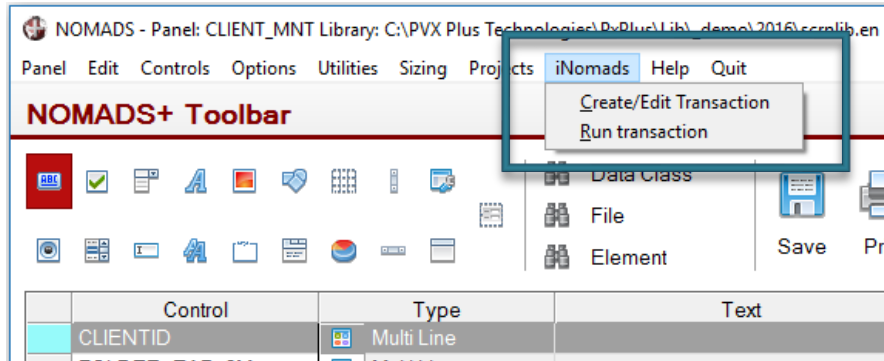
*i*Nomads Support in NOMADS

What are the *i*Nomads support tools added to
NOMADS?



New *i*Nomads Support in Nomads

- *i*Nomads menu to all Panel Designers

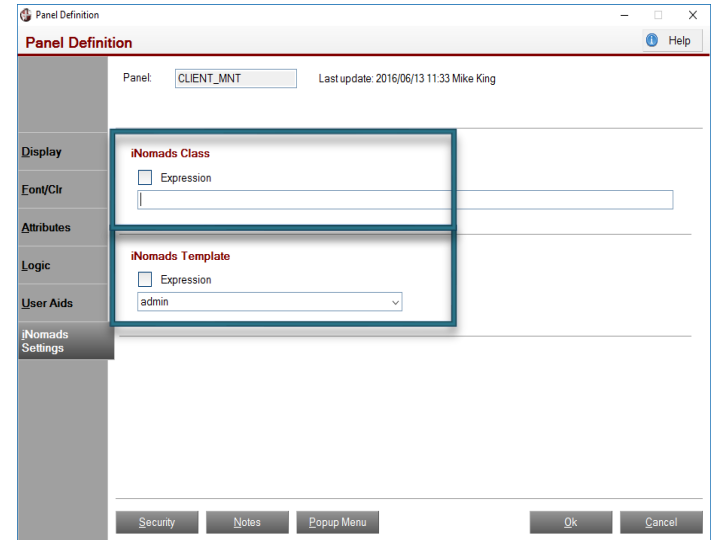


- Ability to create, edit and run *i*Nomads transactions
- Launches EZWeb automatically



New *i*Nomads Support in Nomads

- *i*Nomads Settings Folder tab in Panel header
 - *i*Nomads Template parameter added to panel header
 - *i*Nomads Classes parameter added to panel header and applicable controls
 - *i*NomadsHidden
 - PagedView
 - ScrollView



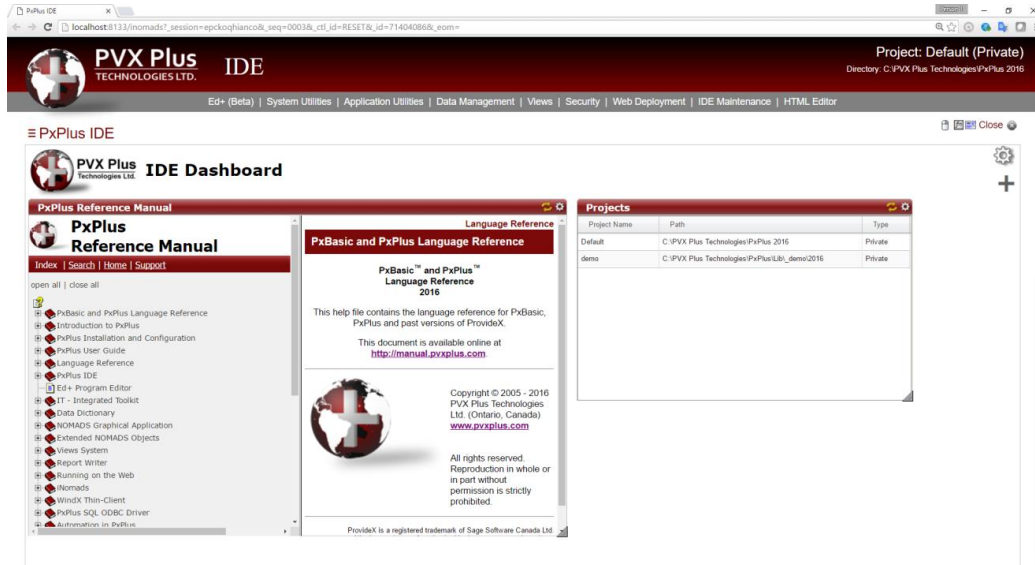
Web IDE

Introducing the Web IDE



Web IDE

- Web based version of the Desktop IDE
- Bring PxPlus Development toolkit to the browser



The screenshot shows a web browser window displaying the PxPlus IDE interface. The browser's address bar shows a localhost URL. The page header includes the PVX Plus Technologies Ltd. logo and the text 'IDE'. A navigation menu is visible below the header. The main content area is titled 'PxPlus IDE' and contains a 'PxPlus Reference Manual' sidebar on the left, a central 'Language Reference' pane, and a 'Projects' table on the right. The 'Projects' table lists two projects: 'Default' and 'demo', both with paths in the C:\PVX Plus Technologies\PxPlus\2016 directory and marked as 'Private'.

Project Name	Path	Type
Default	C:\PVX Plus Technologies\PxPlus\2016	Private
demo	C:\PVX Plus Technologies\PxPlus\2016\demo	Private



Web IDE

- New shortcut added in PxPlus 2016
- Uses EZWeb
 - Starts EZWeb automatically
 - Able to define a host and port



Configure PxPlus Web IDE

Configure PxPlus Web IDE Help

Host: localhost
(Enter a named host or IP address)

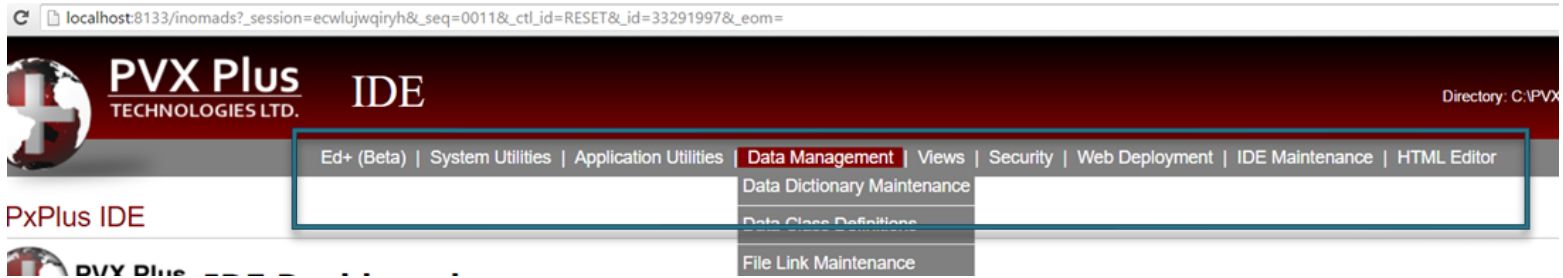
Port Number: 8133

Save Exit



Web IDE

- Uses new IDE template

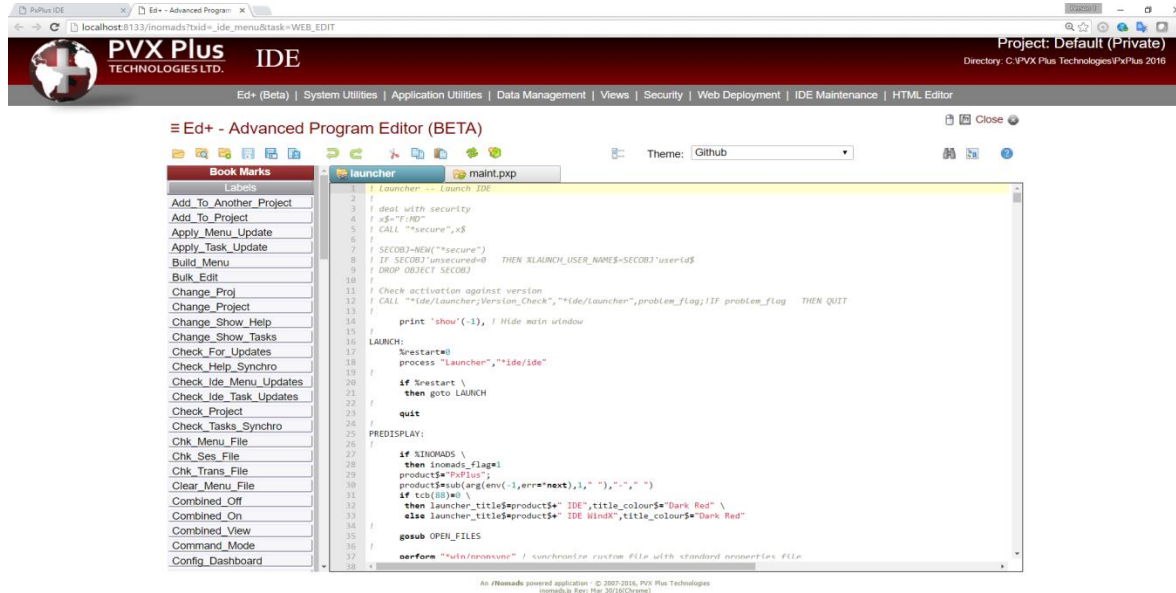


- Menu is built on the fly
 - New capability added to *iNomads* templates
 - Task are based on the Menu tasks from Desktop IDE
 - Only web type tasks



Web IDE

- Project Based
- New Web based editor ED+



DireXions 2016

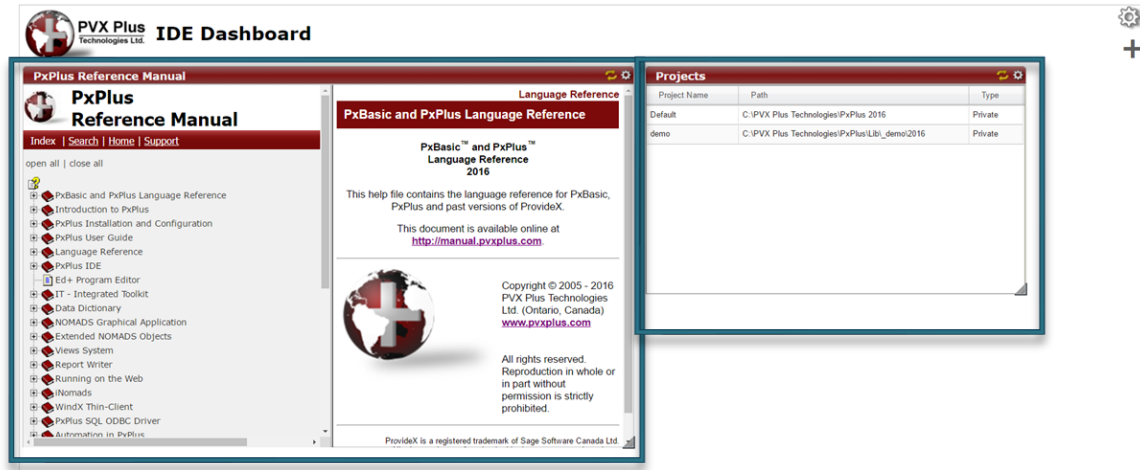
Web IDE

- Web ID showcases many new features introduced in PxPlus 2016
 - Floating Overlaid Windows
 - Hamburger menu
 - Substitute Panels
 - Drop Query PxPlus 2014 FP1
 - Themes
 - *i*Nomads Classes
 - Paged output views



Web IDE

- Added Dashboard capability
- Information added using Widgets



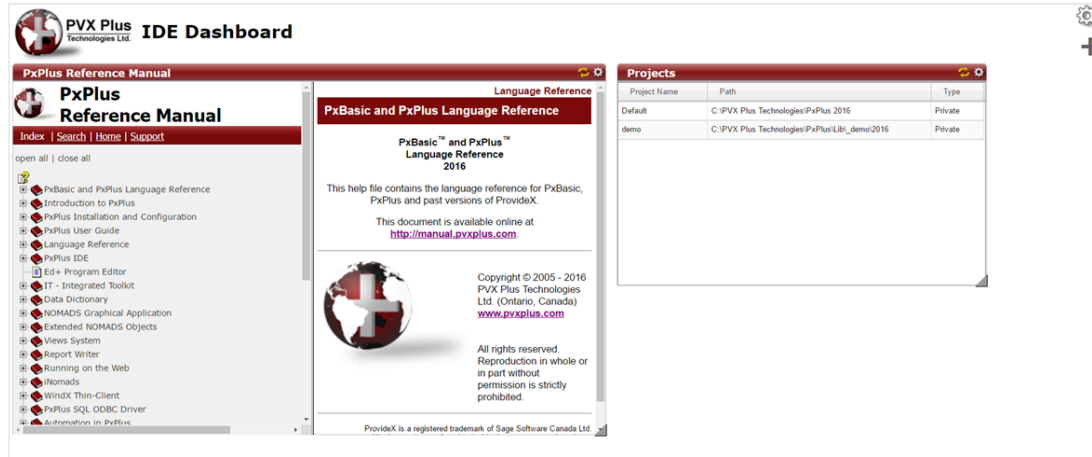
The screenshot displays the PVX Plus IDE Dashboard. The main content area is divided into two panels. The left panel, titled "PxPlus Reference Manual", contains a navigation menu with links to various sections such as "PxBasic and PxPlus Language Reference", "Introduction to PxPlus", "PxPlus Installation and Configuration", "PxPlus User Guide", "Language Reference", "PxPlus IDE", "Ed+ - Program Editor", "IT - Integrated Toolkit", "Data Dictionary", "NOMADS Graphical Application", "Extended NOMADS Objects", "Views System", "Report Writer", "Running on the Web", "Nomads", "WindX Thin-Client", "PxPlus SQL ODBC Driver", and "Automation in PxPlus". The right panel, titled "Language Reference", displays the "PxBasic™ and PxPlus™ Language Reference 2016" document. It includes a globe icon and text stating: "This help file contains the language reference for PxBasic, PxPlus and past versions of ProvideX. This document is available online at <http://manual.pxplus.com>". Below this, it provides copyright information: "Copyright © 2005 - 2016 PVX Plus Technologies Ltd. (Ontario, Canada) www.pxplus.com" and a disclaimer: "All rights reserved. Reproduction in whole or in part without permission is strictly prohibited." A footer note states "ProvideX is a registered trademark of Sage Software Canada Ltd." To the right of the dashboard, there is a settings gear icon and a plus sign icon.

Project Name	Path	Type
Default	C:\PVX Plus Technologies\PxPlus 2016	Private
demo	C:\PVX Plus Technologies\PxPlus\Lib_demo\2016	Private



Dashboard

- Driven by .json file in *web/services/dashboard



The screenshot displays the PVX Plus IDE Dashboard. The main content area is divided into three panes:

- PxPlus Reference Manual:** A sidebar menu with options like Index, Search, Home, and Support. The main content shows the 'PxBasic and PxPlus Language Reference' section, which includes a table of contents and a detailed description of the language reference file.
- Projects:** A table listing project configurations.

Project Name	Path	Type
Default	C:\PVX Plus Technologies\PxPlus 2016	Private
demo	C:\PVX Plus Technologies\PxPlusLib_demo2016	Private

- Created ide.json for Web IDE



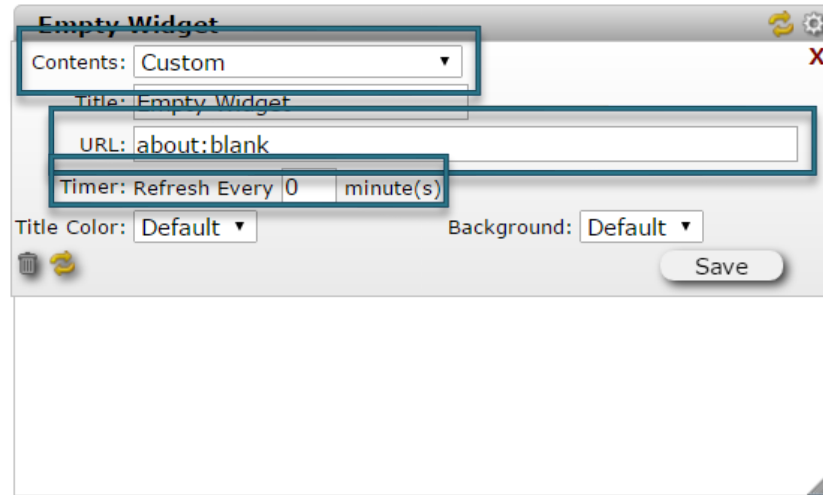
Dashboard

- Adding a Widget
 - Web service
 - Web site
 - Virtually any URL
- **Gear** button controls dashboard settings
- **Plus** button is used to add new widgets



Dashboard – Add a Widget

- Simple maintenance screen
- Contents are loaded from “Options” section of the .json
- URL can be a website or web service
- Timer controls how often the widget is refreshed
- Other cosmetic fields



The screenshot shows a configuration window titled "Empty Widget". It contains several fields and controls:

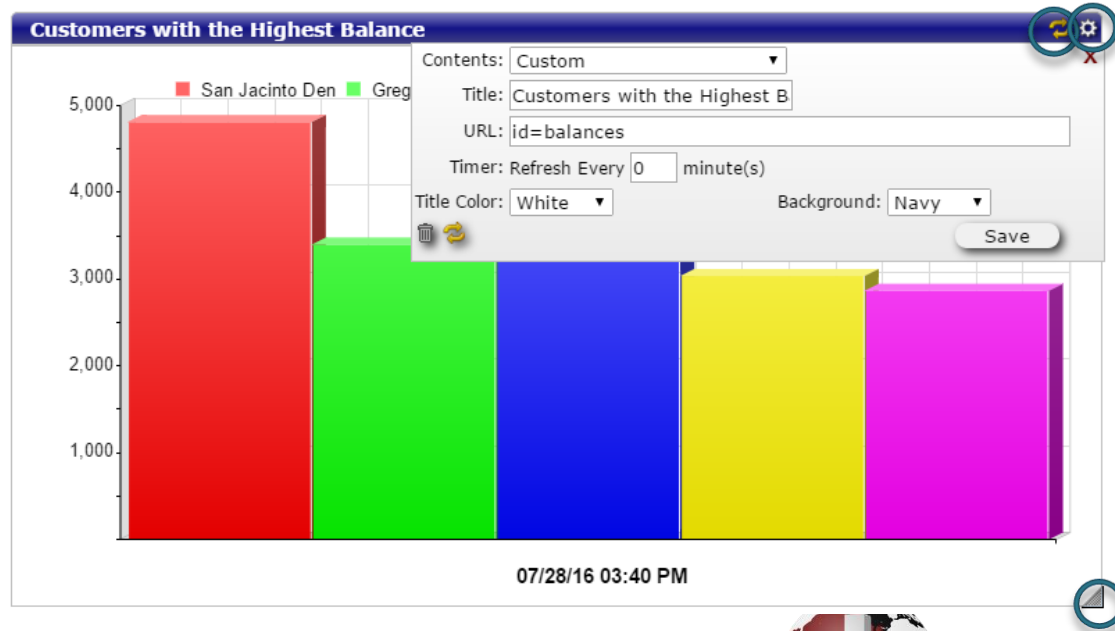
- Contents:** A dropdown menu set to "Custom".
- Title:** A text field containing "Empty Widget".
- URL:** A text field containing "about:blank".
- Timer:** A control showing "Refresh Every 0 minute(s)".
- Title Color:** A dropdown menu set to "Default".
- Background:** A dropdown menu set to "Default".
- Buttons:** A "Save" button and a trash icon.



Dashboard – Widget Example

● Each widget has a number of buttons

- Refresh
- Resize
- Maintain



Web Services

What's new with Web Services



Web Services

- In PxPlus 2014 we introduced web services
 - Query web service – NOMADS Queries
 - Report web service – Report Writer
 - Chart web services – NOMADS Charting
- Retrieve data from the system
- Integrate with other web based applications
- Each web service has number of output capabilities
 - HTML, CSV, XML, PDF, PNG, JSON



Web Services

● Query service

Standard Syntax: `http://..site../services/qry.pxp?qry=query&lib=library`

`http://..site../services/qry.pxp?qry=salesrep_qry&type=html&lib=*demo/2016/scrnlib.en&dir=*demo/2016`

● Chart service

Standard Syntax: `http://..site../services/chart.pxp?qry=query&lib=library&chart=name`

`http://..site../services/chart.pxp?qry=client_qry&type=html&lib=*demo/2016/scrnlib.en&dir=*demo/2016&chart=balances`

● Report Writer service

Standard Syntax: `http://..site../services/rpt.pxp?rpt=reportname`

`http://..site../services/rpt.pxp?rpt=*demo/2016/reports/clientlist.pvr&type=html&dir=*demo/2016`



Web Services for 2016

- Query web service
 - Added column sorting
 - Added new Table output
- New Maintenance web service
 - Create a simple maintenance
 - Based on the data dictionary



Show
Me

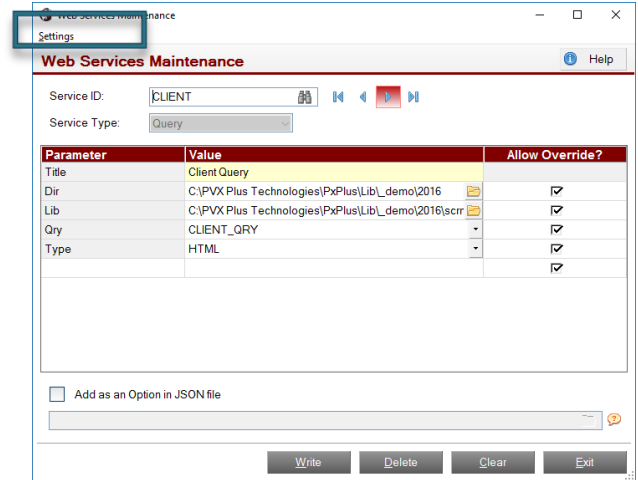
Standard Syntax: `http://..site../services/maint.aspx?dir=directory&dict=dictionary&table=tablename&key_field=keyfield`

`http://..site../services/maint.aspx?dir=*demo/2016&dict=providex.ddf&table=product&key_field=productcode$`



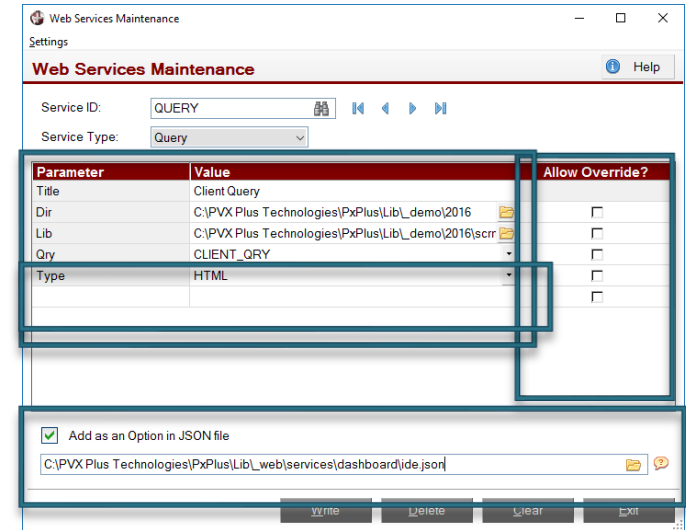
Web Services Maintenance

- Ability to create named web services
- Simplifies creation of web service URL
- Security
 - Force ID in URL
 - Only services IDs will return data



Web Services Maintenance

- Standard set of parameters
- Define whether a parameter can be overridden
- Additional custom parameters
- Add to “Options” to the .json



Using the Web Service

- Deploying the new Web Service IDs
- Simplified and Enhanced entry
 - Dashboard
 - Browser



Using the Web Service

- Dashboard
- Simplified URL entry in Widget
 - ID=service
 - Type=output (i.e. html, json, xml, pdf) - optional



Using the Web Service

- Browser

- Standard URL

<http://..site../services/qry.pxp?qry=query&lib=library>

- Using web service ID

- <http://..site../services/service.pxp?id=service>

- Using web service ID and optional output

<http://..site../services/service.pxp?id=service&type=output>



Recap

- PxPlus IDE is a powerful tool all developers should use
- PxPlus Web IDE extends this functionality to the web
- PxPlus Web Services and Dashboard provides access to data and integration with other web based products

- Our goal is to continue to enhance our toolkit to help you develop faster and deliver better products



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.

- [IDE Main Launcher](#)
- [Panel Designer](#)
 - [NOMADS+ Toolbar](#)
 - [Library Browse](#)
- [Grid Control](#)
 - [Grid Format Definition](#)
 - [Grid Presets](#)
 - [Cell Logic](#)
- [Themes](#) and [Visual Classes](#)
- [Copy Data Dictionary](#)
- [EZ Web Server](#)
- [Web IDE](#)
- [PxPlus Dashboard](#)
- [PxPlus Web Services](#)
- [Web Services Maint.](#)

