

# Leverage the Power of Progress Developer Studio for OpenEdge

Srinivas Kantipudi  
Sr Manager  
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Swathi Yellavaram  
Principal Engineer

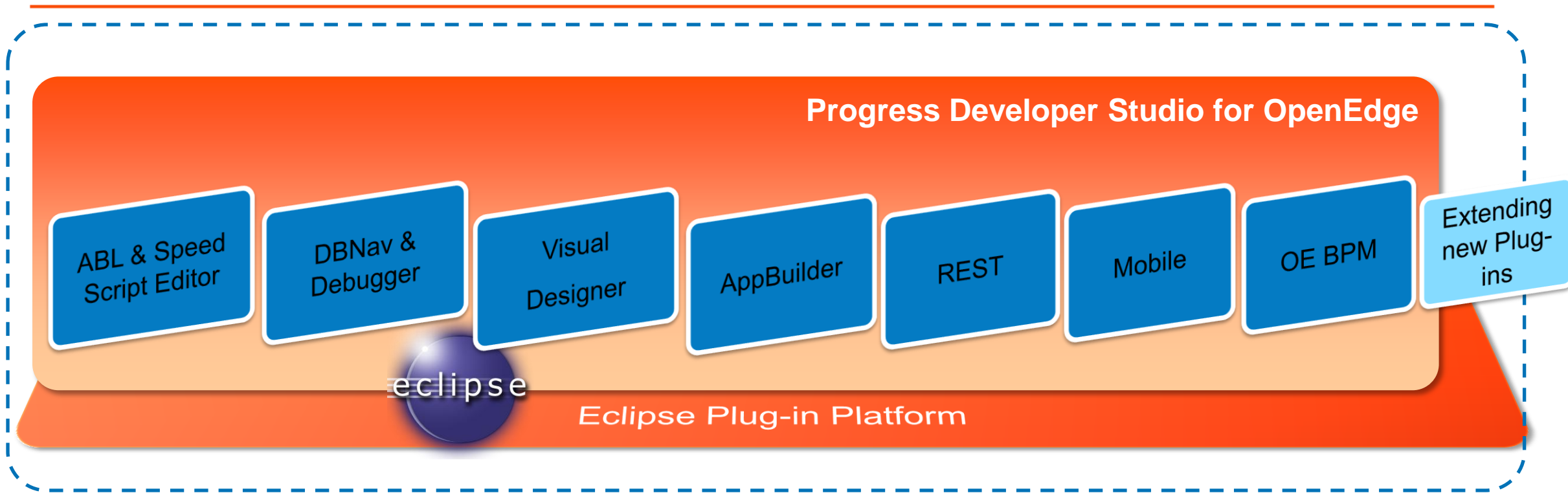
**PROGRESS**  
**EXCHANGE** 2013  
DISCOVER. DEVELOP. DELIVER.

# Agenda

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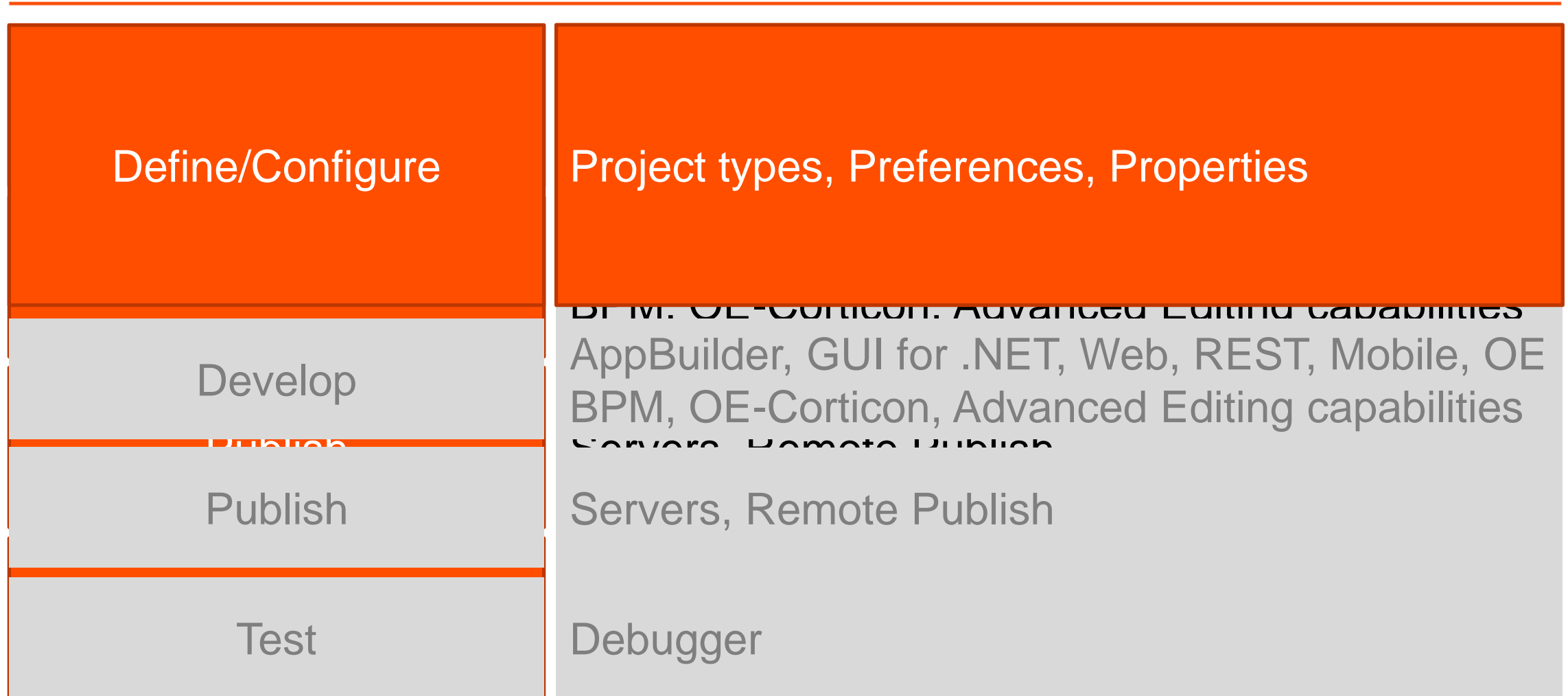
- Brief Introduction to Eclipse and PDS for OpenEdge
- Different Development Environments in PDS OE
- Improving Progress OpenEdge Developer Productivity
- Demo

# Introduction to Eclipse and PDS OE



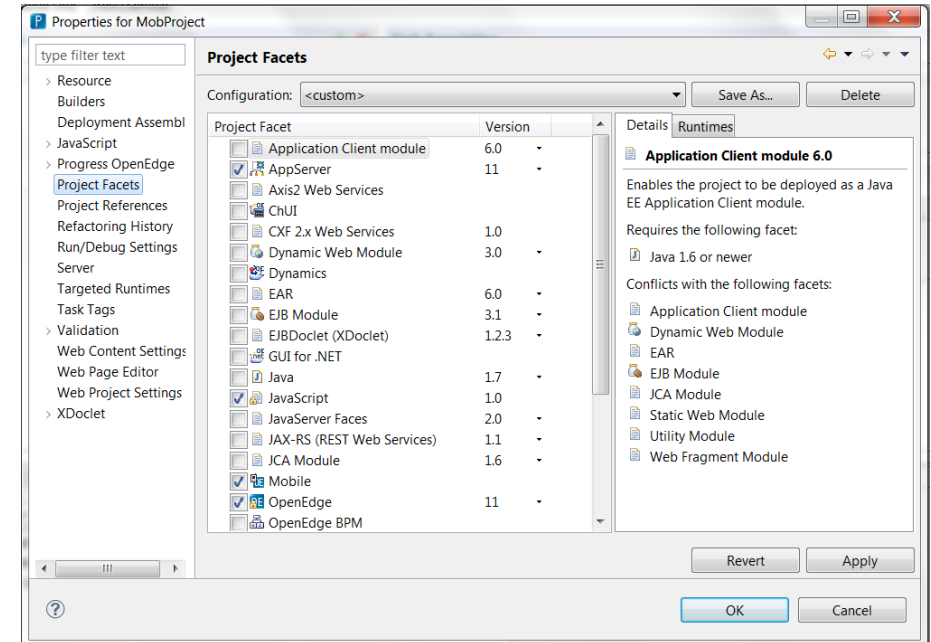
- Eclipse based IDE
- Highly customizable and easily navigable user interface
- Extensive plug-ins available for extending the functionality

# Development Lifecycle



# Project Types

- OpenEdge Project is facet based
  - Specific project type for each development domain
  - Ability to create custom project types
  - Advantages
    - Provides better visibility and organization of code
    - Tailored functionality based on the project type



## Different Project Types

**10.2B**

- AppServer

**11.0**

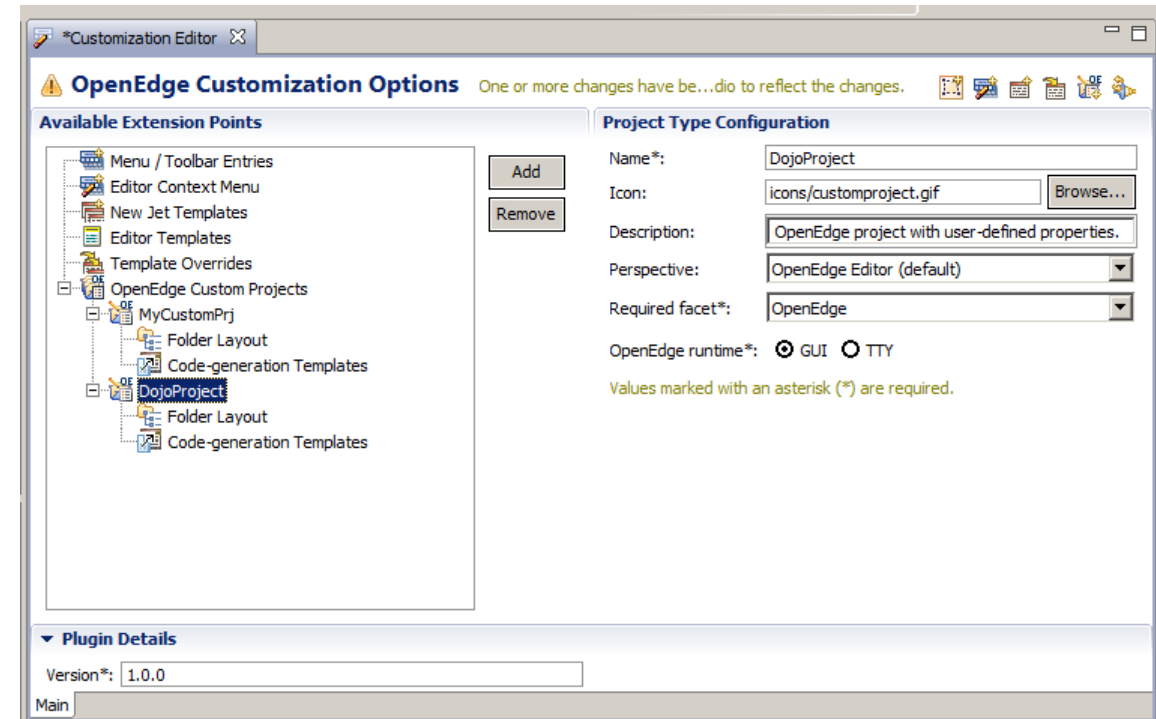
- WebSpeed
- GUI for .NET
- Dynamics
- Static web
- ChUI

**11.2**

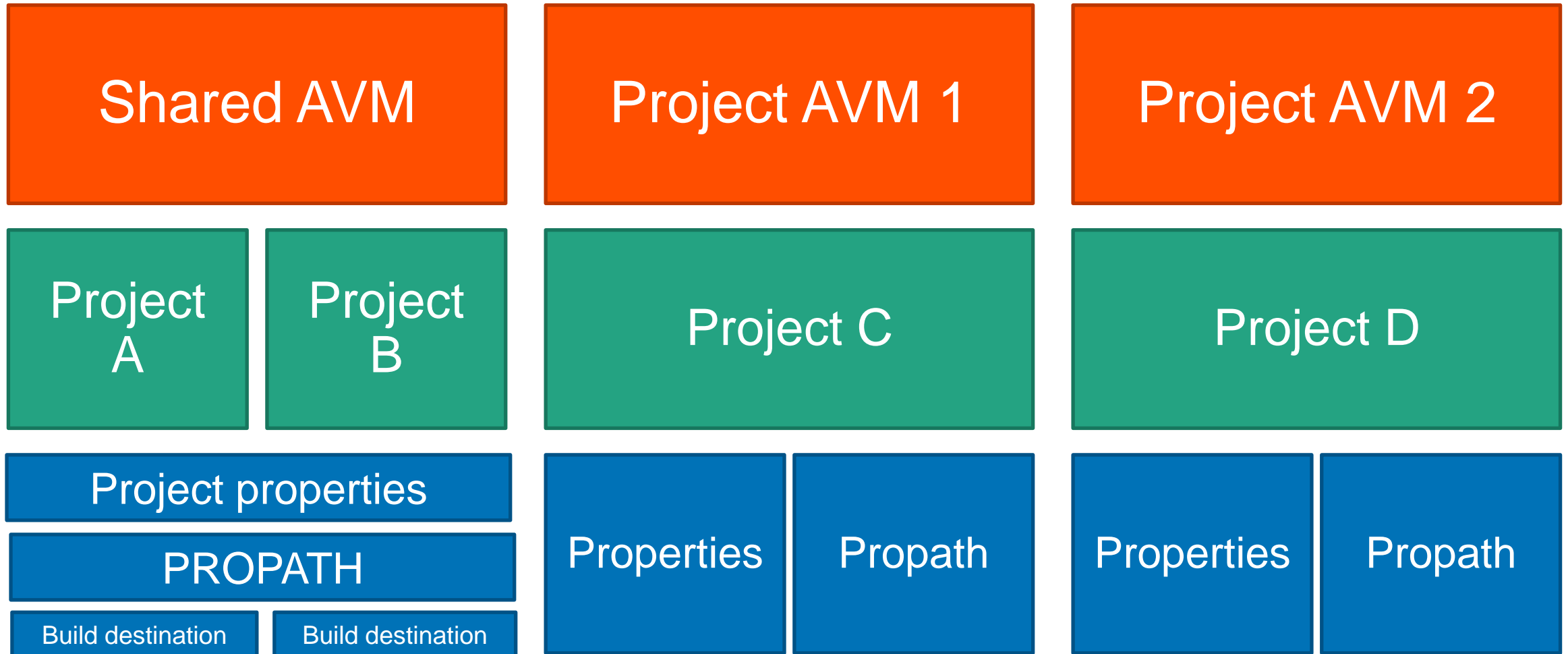
- REST
- Mobile

# Custom Project Types

- Done using Customization editor
  - Tree node named OpenEdge Custom Projects
- A custom project type's details are stored in the extensibility user plug-in
  - Share by making this plug-in available in other Eclipse environments



# Configuring Your Projects and Workspace



# Development Lifecycle

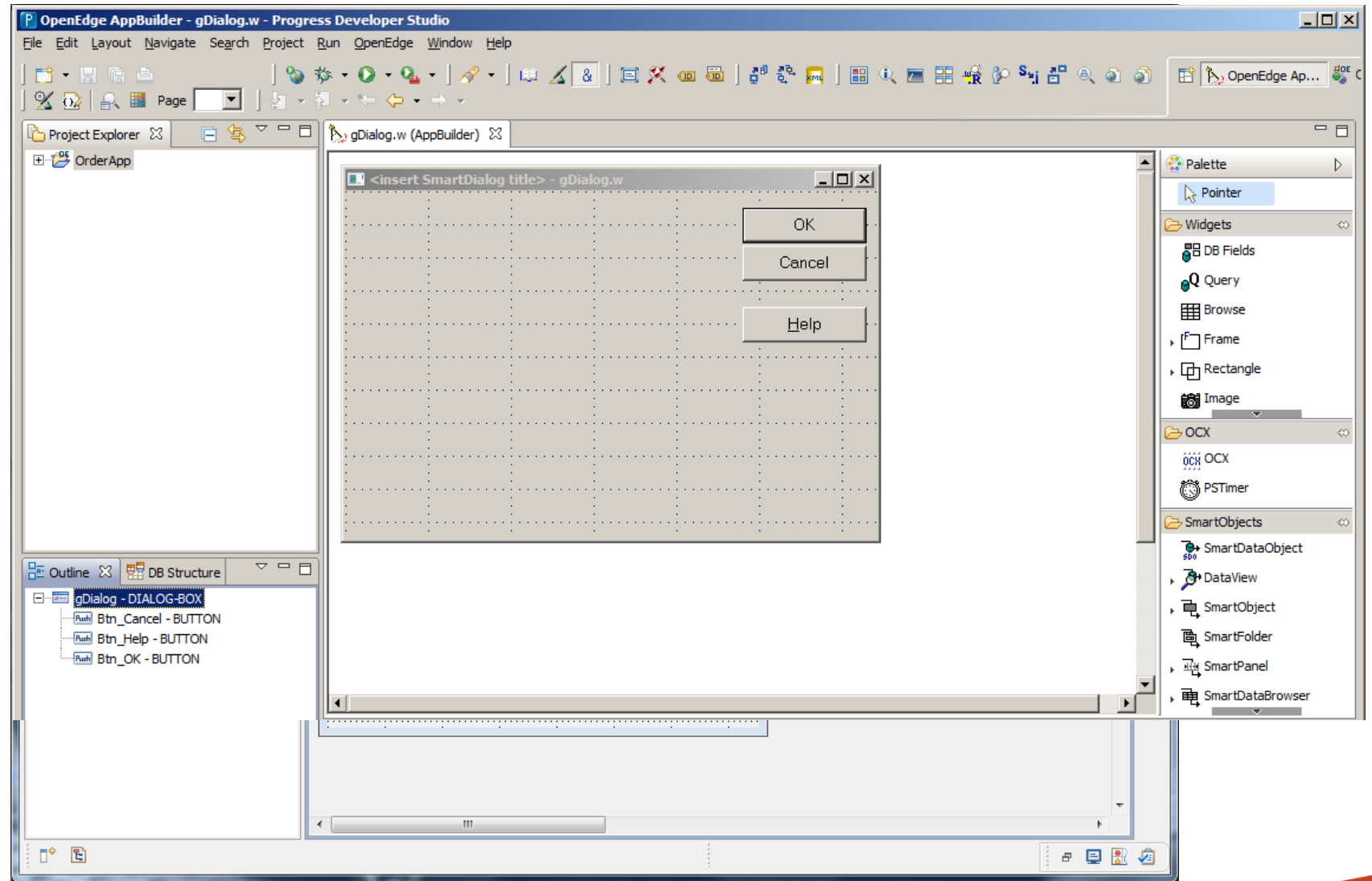
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Define/Configure	Project types, Preferences, Properties
<b>Develop</b>	<b>AppBuilder, GUI for .NET, Web, REST, Mobile, OE BPM, OE-Corticon, Advanced Editing capabilities</b>
Publish	Servers, Remote Publish
Test	Debugger



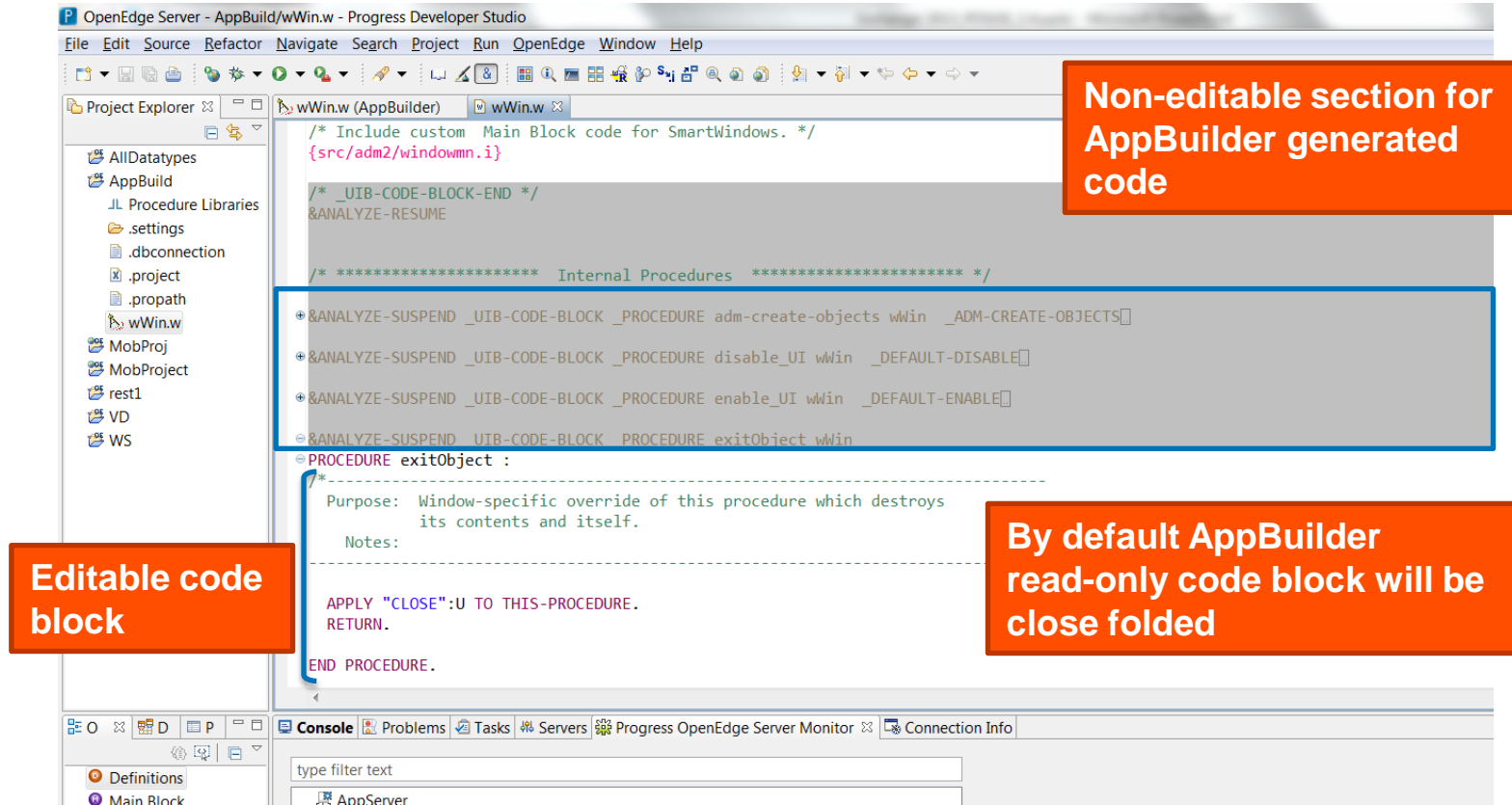
# AppBuilder Integration

- Brings native AppBuilder functionality to PDS OE
- Dock-able widget palette inherits look and feel of GUI for .NET Designer
- Hierarchical widget outline view
- Synchronization between design and source editor



# Improved ABL Source Editor

- Ease of editing AppBuilder generated source file
- Protects AppBuilder generated code
- AppBuilder Editor preference options are provided to turn on/off this feature
- Code folding for AppBuilder specific blocks
- Customized Find and Replace dialog



# Progress OpenEdge GUI for .NET

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- A Microsoft® .NET based Windows graphical user interface
  - Sleek, Competitive UI in ABL
  - .NET object features (methods, properties, events)
- Leverages what you know
  - ABL (events, business logic, data constructs)
- Wealth of .NET controls available
  - OpenEdge Ultra Controls for .NET (Infragistics™ NetAdvantage)
  - Microsoft® controls
  - Third party controls
    - Component One, DevExpress, Telerik, ...

# Visual Designer Perspective for GUI for .NET

**Document Outline view**

**Control Groups:**

- Microsoft
- OpenEdge
- Ultra Controls

**Custom Controls:**

- User Controls
- Inherited Controls

**Properties & Events view**

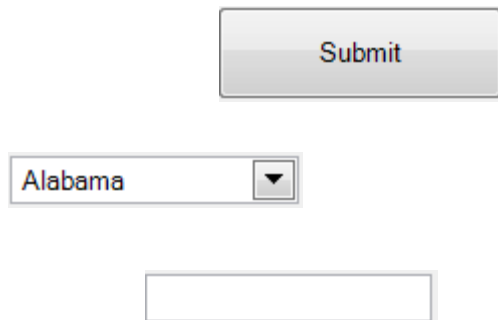
**Different Visual containers:**

- ABL Form
- ABL Dialog
- ABL MDI Form

# Reusable Custom controls

- Two different types
  - User controls
    - A collection of controls
  - Inherited controls
    - Control derived from another control

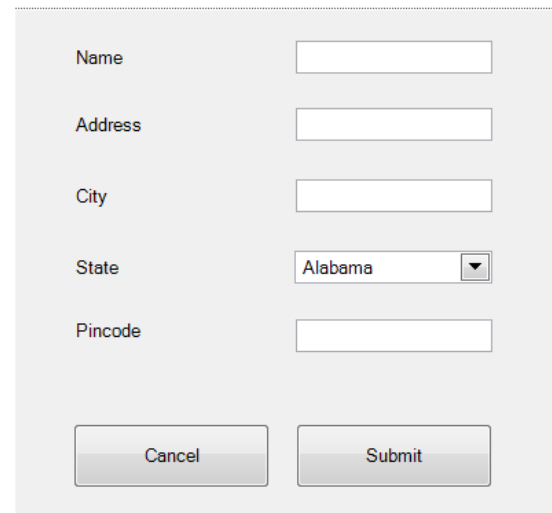
## Individual Controls



Submit

Alabama

## User Address Control



Name

Address

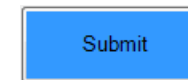
City

State Alabama

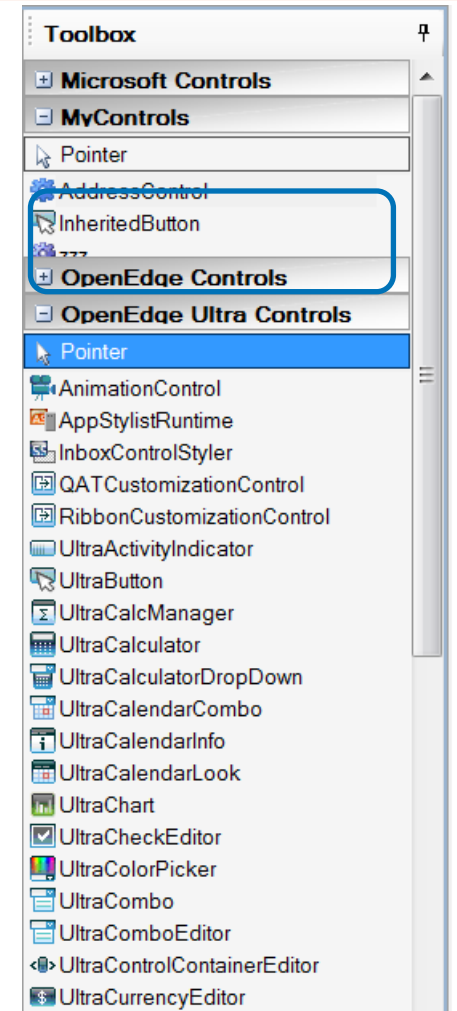
Pincode

Cancel Submit

## Inherited Button Control

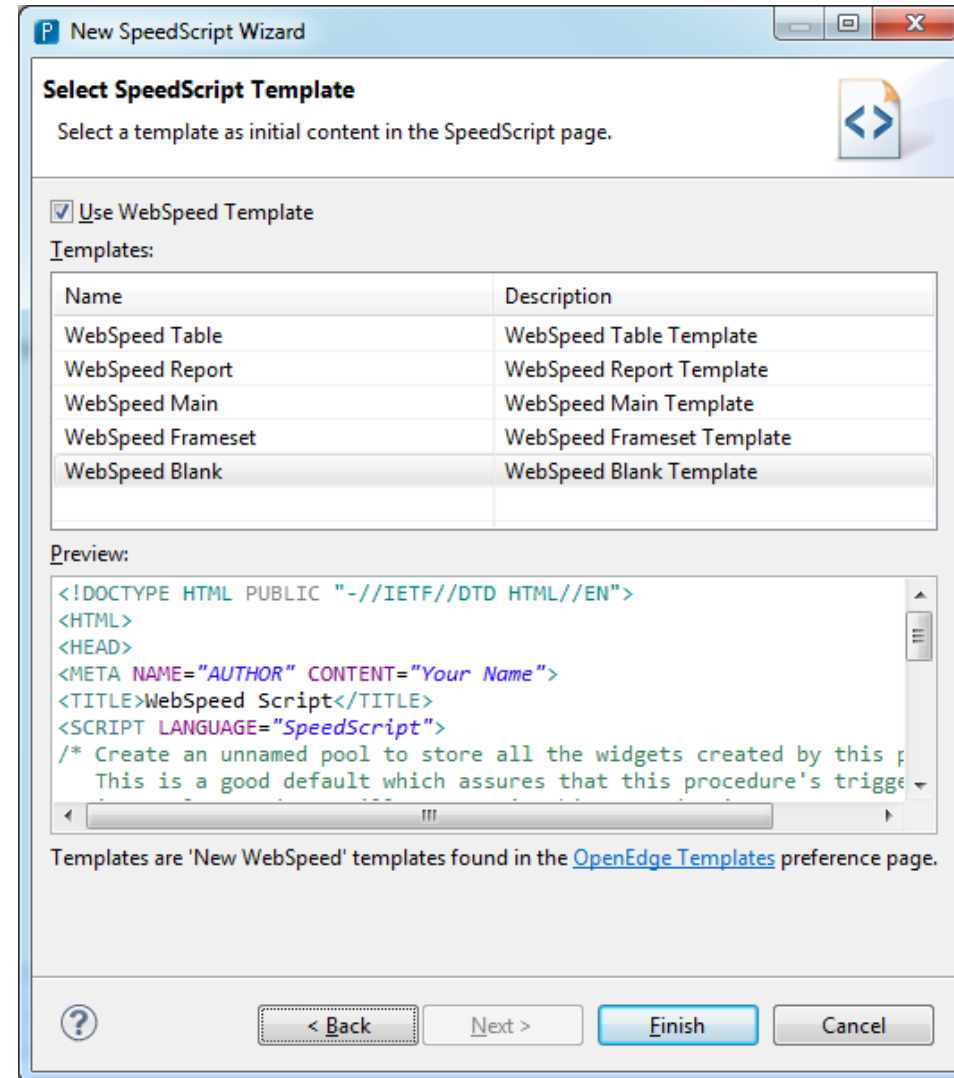


Submit



# WebSpeed Development

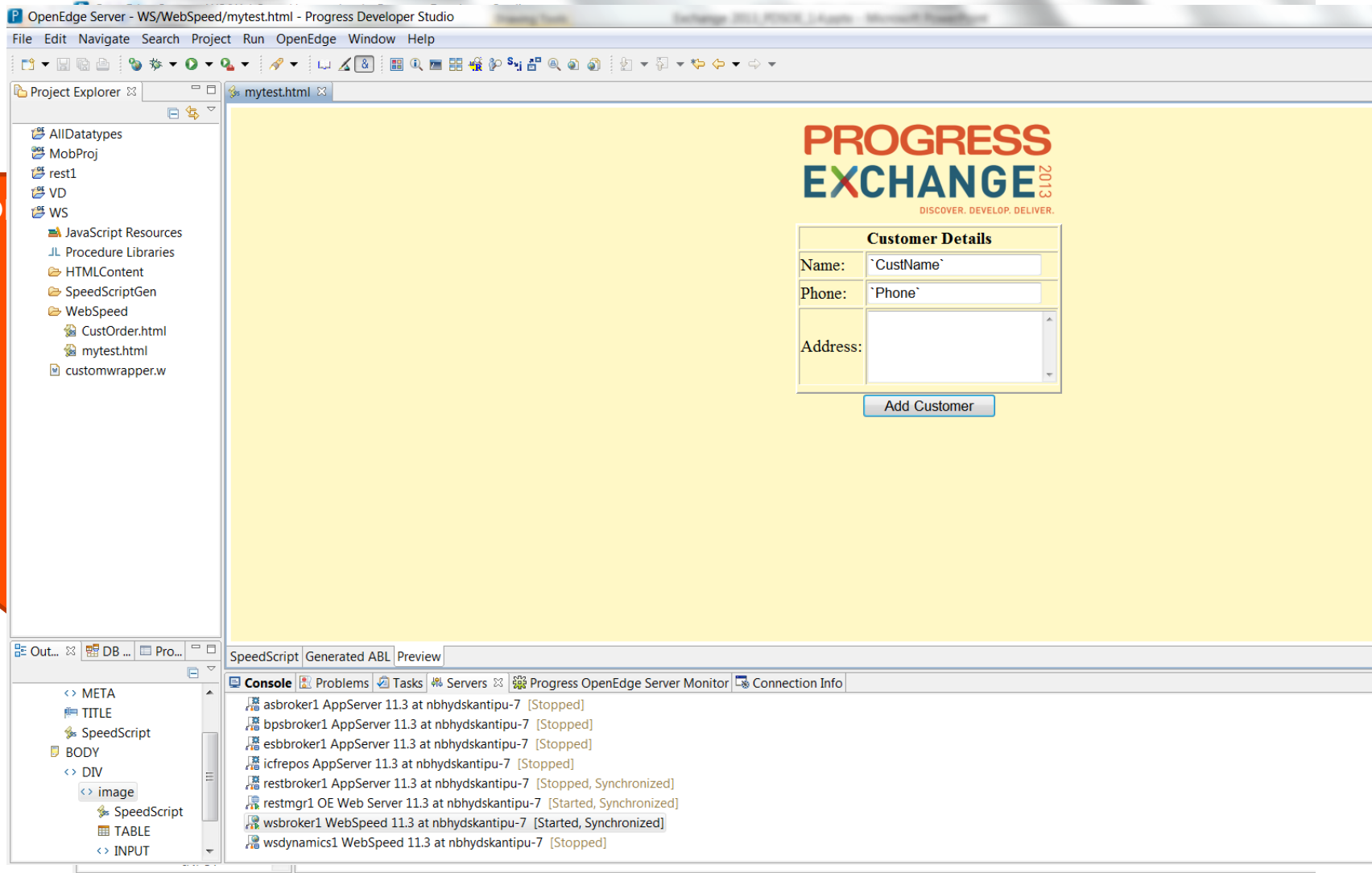
- Completely revamped in 11.0
  - Initial support was through WebSpeed workshop
  - All capabilities bought into PDS OE
- New WebSpeed project type
  - Ability to configure the project with WebServer and WebSpeed broker
- Different templates provided for SpeedScript
- Multi-tabbed SpeedScript Editor
  - SpeedScript, Generated ABL, Preview
  - Support for editor actions in SpeedScript editor



# SpeedScript Editor

## Multi Page Editor with three tabs

- SpeedScript
- Generated ABL
- Preview



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rds

ax check

nd help

/ Open

Catch/

e/ Add

# REST

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- Resource based, light weight, stateless
- Can use JSON or XML
- CRUD Model
  - Create, Read, Update and Delete
- When to use REST
  - Cloud-based and mobile applications
  - Highly scalable stateless applications

OE Mobile uses REST as its protocol

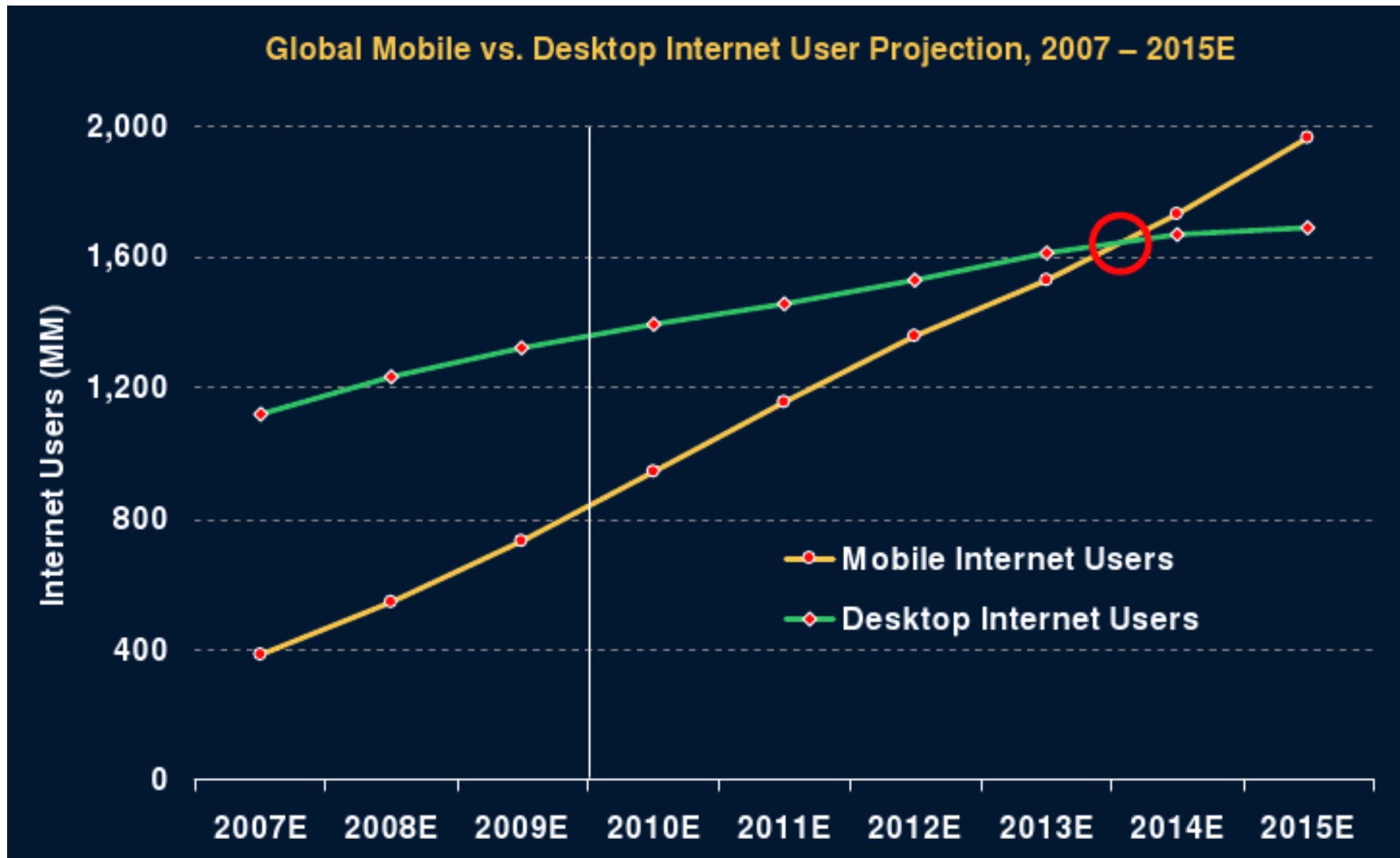


# REST Application Flow

The screenshot displays the REST Expose Editor interface for a project named 'MyRestApp.p' with a service named 'rest1Service'. The 'Service relative URI' is set to '/rest1Service'. The interface is divided into several sections:

- Resources:** A list of resources is shown, with '/ser1' and '/ser2' highlighted by a blue box.
- Verb Association:** A table lists HTTP verbs and their associated REST application. The first row shows 'GET' associated with 'MyRestApp', which is also highlighted by a blue box. Other verbs listed are 'PUT', 'POST', and 'DELETE'.
- Mapping Definitions:** This section is split into 'Input' and 'Output' tabs. The 'Input' tab is active, showing a tree view of request parameters. Under 'Query String Parameters', 'int1' is selected and highlighted by a blue box. A blue arrow points from 'int1' to a parameter definition box on the right. This box shows 'Interface Parameters' with 'int1' of type '{java:Integer}'.

# Growth of Mobile Devices



# Mobile Application Flow

The screenshot displays the Progress Mobile Studio interface for configuring a data source. The top navigation bar includes buttons for 'Back to project list', 'Save', 'Export', 'Share', 'Backup', 'Help', and 'Test'. The main workspace is divided into three panels: Design, Data, and Events.

**Design Panel:** Shows a 'Request' tab with a table of data source fields. The 'Name' column is expanded to show a tree structure: dsCustomer > ttCustomer > Address, Address2, Balance, City, Comments, Contact, Country, CreditLimit, CustNum, Discount, EmailAddress, Fax, and Name.

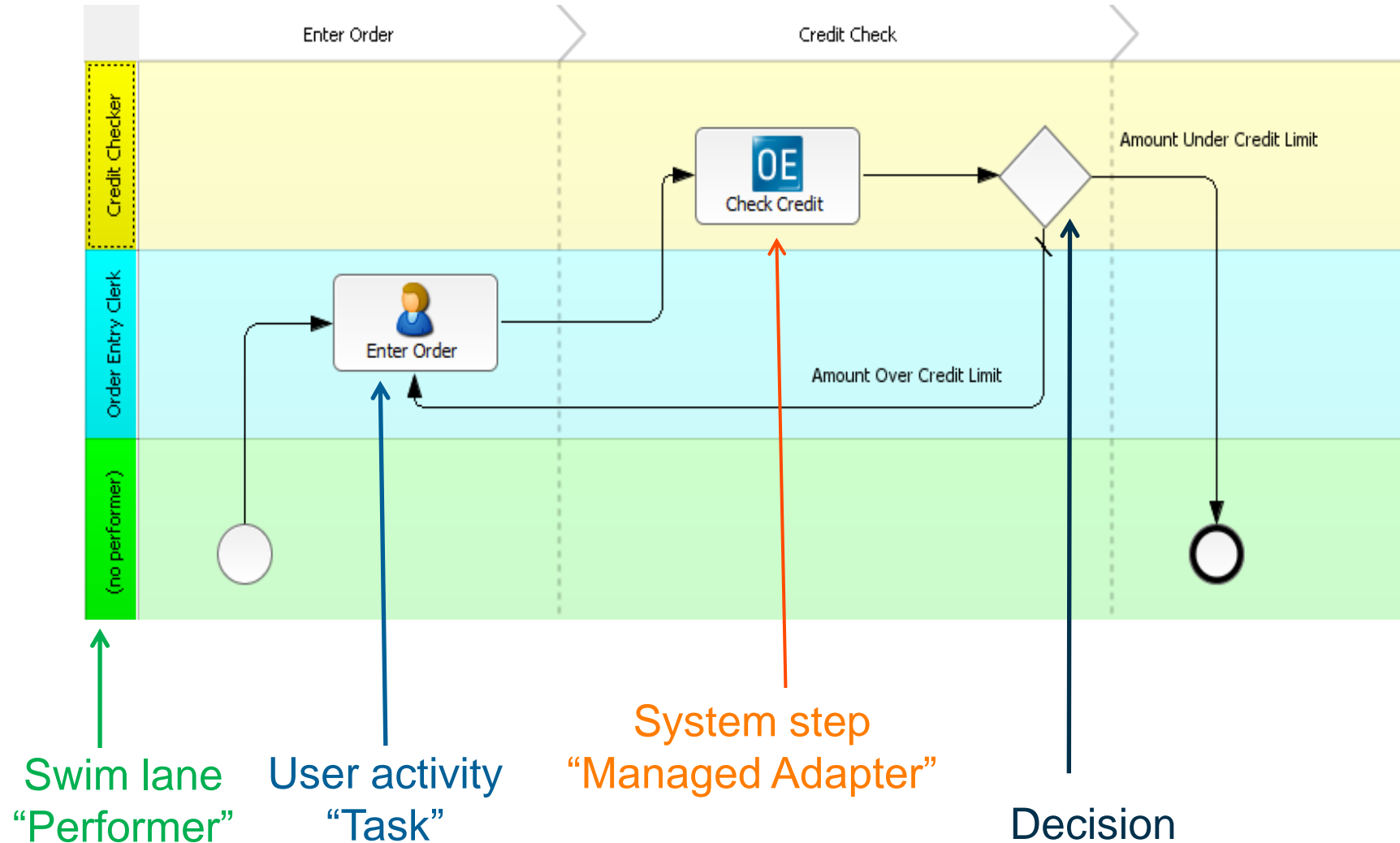
**Data Panel:** Shows a 'Response' tab with a table of data source fields. The 'Name' column is expanded to show a tree structure: dsCustomer > ttCustomer > Address, Address2, Balance, City, Comments, Contact, Country, CreditLimit, CustNum, Discount, EmailAddress, Fax, and Name.

**Events Panel:** Shows a 'Create variable' dialog with a text input field for 'Enter variable name' and a 'Create' button. Below this, the 'Components' section shows a tree structure: MyPhoneApp > mobilelist\_4 > mobilelistitem\_5 (with a blue highlight and 'Add JS' button) and mobilelabel\_3 > 'Name' (response) (with a blue highlight and 'Add JS' button).

Arrows indicate the mapping of data source fields to the 'Add JS' buttons in the Events panel. Specifically, the 'Name' field under 'ttCustomer' in the Data panel is mapped to the 'Name' (response) variable, and the 'Name' field under 'ttCustomer' in the Design panel is mapped to the 'ttCustomer' (response) variable.

# Progress OpenEdge BPM

- Provides ability to develop both transaction-oriented and process-centric applications
- Allows customers to automate the workflows
- Allows customers to get visibility into how well their processes are performing
- Allows customization without code changes



# Progress OpenEdge – Corticon

Define Schema

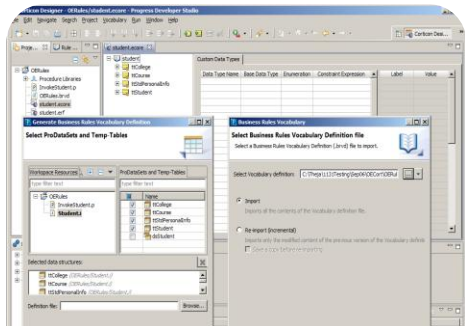
Create Rules

Deploy

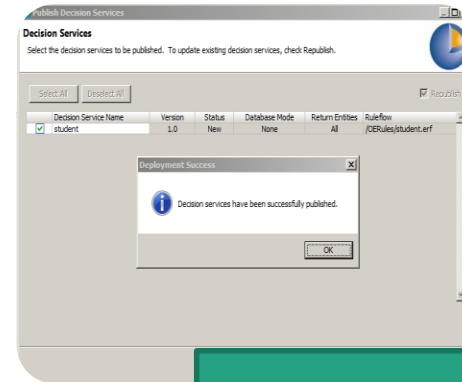
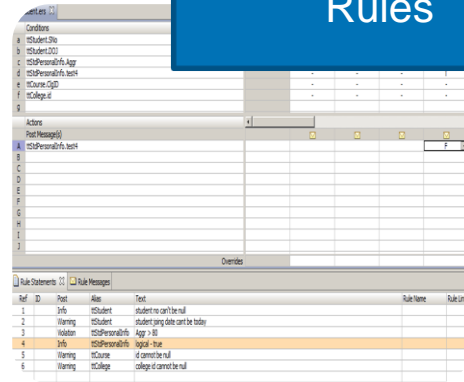
Invoke Decision Service

Create Business Rules

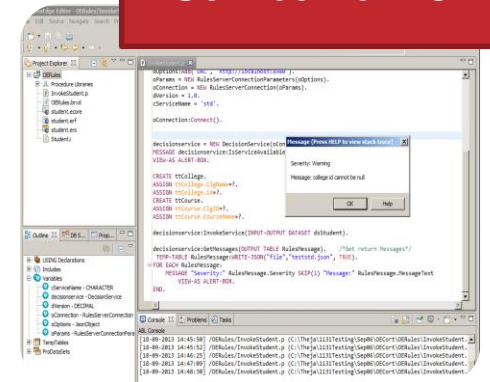
Invoke Decision Service from OE



Export Schema from PDSOE and Import it as Vocabulary



Design Ruleflow and Deploy



# Advanced Editing Capabilities

The screenshot displays the Progress Developer Studio interface with three callout boxes highlighting advanced editing capabilities:

- Color Coding:** Points to a procedure definition in the editor where keywords like `PROCEDURE`, `Purpose:`, `Notes:`, `FOR EACH`, `DISPLAY`, and `END` are color-coded.
- Tabular formatting:** Points to a table of variable definitions within a procedure body, showing columns for variable names and data types.
- Templates/macros:** Points to the Preferences dialog, specifically the Templates section, which lists various code templates like CMT, DED, DES, etc., with a preview of a static variable definition.

The Preferences dialog shows the following table of templates:

Name	Context	Description	Auto Ins...
<input checked="" type="checkbox"/> CMT	OpenEdge Editor	Comment	on
<input checked="" type="checkbox"/> DED	OpenEdge Editor	Event with delegate	on
<input checked="" type="checkbox"/> DES	OpenEdge Editor	Event with signature	on
<input checked="" type="checkbox"/> DMS	OpenEdge Editor	Method Signature	on
<input checked="" type="checkbox"/> DPY	OpenEdge Editor	Property definition	on
<input checked="" type="checkbox"/> DSVCH	OpenEdge Editor	Static Character variable	on
<input checked="" type="checkbox"/> DSVCL	OpenEdge Editor	Static Class variable	on
<input checked="" type="checkbox"/> DSVCM	OpenEdge Editor	Static Com-handle variable	on
<input checked="" type="checkbox"/> DSVDE	OpenEdge Editor	Static Decimal variable	on
<input checked="" type="checkbox"/> DSDVM	OpenEdge Editor	Static Datetime variable	on
<input checked="" type="checkbox"/> DSDVT	OpenEdge Editor	Static Date variable	on
<input checked="" type="checkbox"/> DSDVTZ	OpenEdge Editor	Static Datetime-tz variable	on
<input checked="" type="checkbox"/> DSVHN	OpenEdge Editor	Static Handle variable	on
<input checked="" type="checkbox"/> DSVI6	OpenEdge Editor	Static Int64 variable	on
<input checked="" type="checkbox"/> DSVIN	OpenEdge Editor	Static Integer variable	on
<input checked="" type="checkbox"/> DSVLC	OpenEdge Editor	Static Longchar variable	on
<input type="checkbox"/> DSVLG	OpenEdge Editor	Static Logical variable	on

The preview for the selected template shows: `DEFINE STATIC VARIABLE ${cursor} AS Progress.Lang.Object NO-UNDO.`

# Development Lifecycle

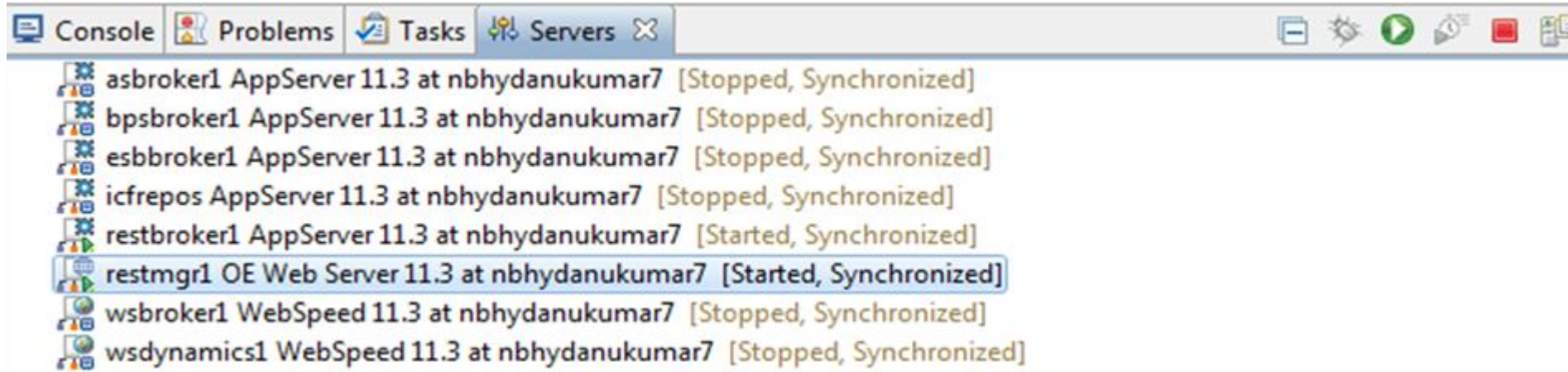
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Define/Configure	Project types, Preferences, Properties
Develop	AppBuilder, GUI for .NET, Web, REST, Mobile, OE BPM, OE-Corticon, Advanced Editing capabilities
<b>Publish</b>	<b>Servers, Remote Publish</b>
Test	Debugger

# Servers in PDSOE

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- Three types of Servers
  - AppServer, Web Server, WebSpeed
- Servers can be stopped and started from Servers view in PDSOE

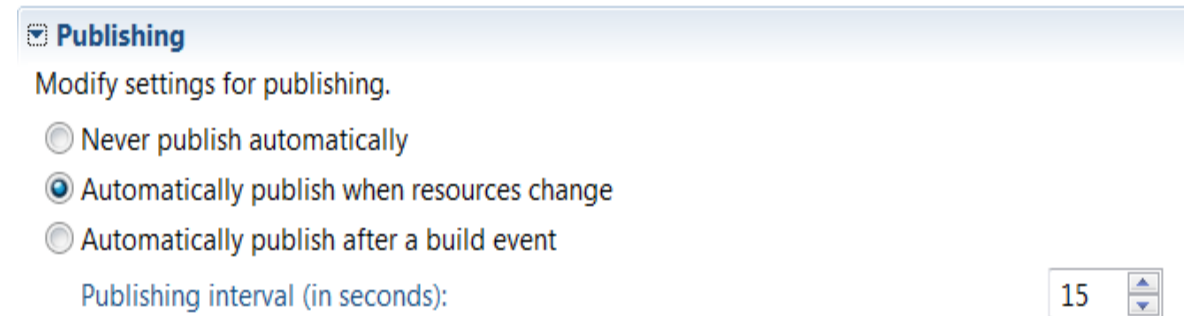


- Server Editor to modify Server properties
  - Connection information, timeouts, publish location



# Publish

- Configure resources to be published
- Associate module/project to the Server
- Configure Publish settings
- Publish options
  - Publish
  - Clean



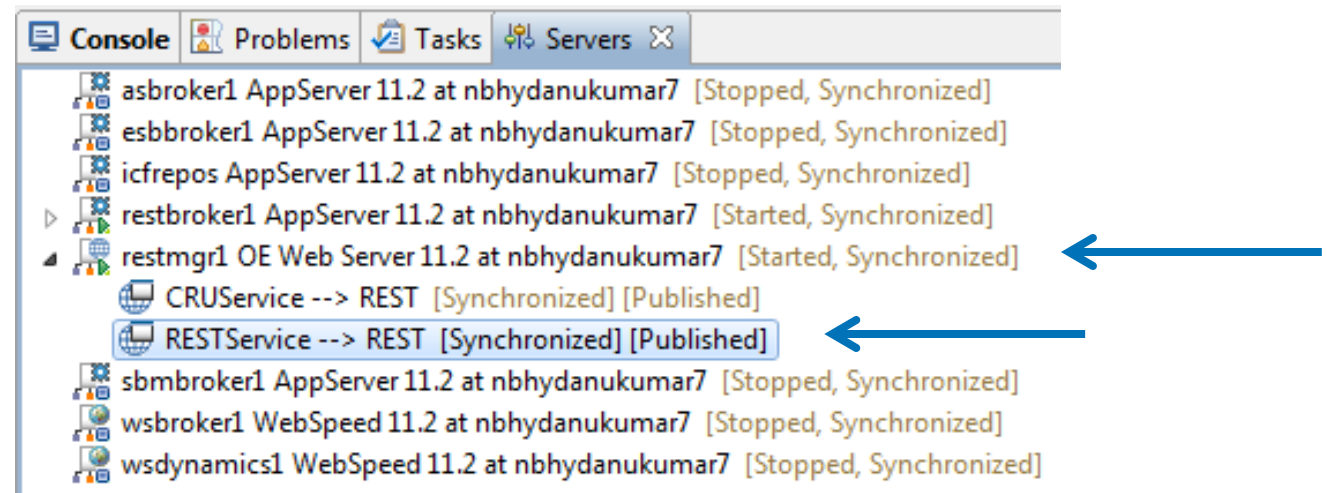
**Publishing**  
Modify settings for publishing.

Never publish automatically

Automatically publish when resources change

Automatically publish after a build event

Publishing interval (in seconds): 15



Console Problems Tasks Servers

- asbroker1 AppServer 11.2 at nbhydanukumar7 [Stopped, Synchronized]
- esbbroker1 AppServer 11.2 at nbhydanukumar7 [Stopped, Synchronized]
- icfrepos AppServer 11.2 at nbhydanukumar7 [Stopped, Synchronized]
- restbroker1 AppServer 11.2 at nbhydanukumar7 [Started, Synchronized]
- restmgr1 OE Web Server 11.2 at nbhydanukumar7 [Started, Synchronized]
- CRUService --> REST [Synchronized] [Published]
- RESTService --> REST [Synchronized] [Published]
- sbmbroker1 AppServer 11.2 at nbhydanukumar7 [Stopped, Synchronized]
- wsbroker1 WebSpeed 11.2 at nbhydanukumar7 [Stopped, Synchronized]
- wsdynamics1 WebSpeed 11.2 at nbhydanukumar7 [Stopped, Synchronized]

# Development Lifecycle

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Define/Configure	Project types, Preferences, Properties
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**PROGRESS**