Customizing OpenEdge Architect For non-Java Developers

"Progress Development Studio for OpenEdge®" in OpenEdge 11

Mike Fechner, Consultingwerk Ltd.

Consultingwerk Ltd.

- Independent IT consulting organization
- Focusing on OpenEdge and .NET
- Located in Cologne, Germany
- Vendor of tools and consulting programs
- 22 years of Progress experience (V5 ... OE11)
- GUI for .NET early adaptor (since 10/2006)
- Recently started with iPhone/iPad development

software architecture and development

OpenEdge® application modernisation solutions

- WinKit
- SmartComponent Library
- Dynamics4.NET
- Tools can be used together or separately
- Share common code base
- SmartComponents.Mobile, SmartComponents.Web
- SmartBPMAdapter for OpenEdge BPM/Savvion

Agenda

- A (short) review of OpenEdge Architect
- Views and perspectives
- Some useful keyboard shortcuts
- (Personal) preferences in OpenEdge Architect
- Configuring custom file types
- Run configurations
- External tools
- Plugin installation
- Customizing OpenEdge Architect Templates
- Open files from ABL code

OpenEdge Architect

- Eclipse based, extensible
- Available since 10.1A (continuously enhanced since then)
- Alternative to the AppBuilder / OpenEdge Studio
- Requires a separate license (included in PSDN SDK), parallel installation possible
- AppBuilder is integrated
- Extensible using 3rd party plug-ins (commercial, community based)
- Windows only (Linux support for OE11 dropped)

Customizing OpenEdge Architect

software architecture and development

Reasons to migrate to OpenEdge Architect

- GUI for .NET
 - Visual Designer, Class Browser
- object-oriented coding
 - no class template in AppBuilder, class browser
- AppServer Development (10.2B, 11.0)
- Progress Tools Strategy

 other development tools also Eclipse based (i.e. Sonic MQ, Sonic ESB, Savvion, OpenEdge BPM, ...)

OpenEdge Architect

- Eclipse is a Java Application
- Progress has created plugins for OpenEdge specific functionality
- Features (collection of plugins) and branding
- Progress compiler executed in prowin32.exe (AVM) or _progres.exe (for TTY code)
- Communication between Java and AVM via Network sockets
- ADE legacy tools (Data Dictionary) available via integrated AVM

Customizing OpenEdge Architect

Consultingwerk

software architecture and development

What is OpenEdge Architect



Customizing OpenEdge Architect

Demo of integrated features

- Class Browser
- Visual Designer
- Search & Replace
- Integrated Debugger (set break point)
- ABL online help (turn it into a fast view)
- Open Resource Dialog (CTRL-SHIFT-R)
- Outline / Quick Outline Dialog (CTRL-O)
- Hyperlink opening of files (include file, RUN, class reference)

Consultingwerk software architecture and development

Agenda

- A (short) review of OpenEdge Architect
- Views and perspectives
- Some useful keyboard shortcuts
- (Personal) preferences in OpenEdge Architect
- Configuring custom file types
- Run configurations
- External tools
- Plugin installation
- Customizing OpenEdge Architect Templates
- Open files from ABL code



Consultingwerk

OpenEdge Editor Test - ABL_Trunk/Consultingwerk/Util/QueryHelper.cls - OpenEdge Architect - C:\Work\SmartComponents4NET\Workspace					
File Edit Source Navigate Search Project OpenEdge Perforce Run Window Help					
TI + 🖩 🗁 🔏 🖬 🦦 + 🔕 + 💁 🖉 + 🖆 + 🖗 + 😓 + 🖓 + 😓 -					
😭 🦥 OpenEdge Editor 🕕 Planning 👯 OpenEdge Debugger 🏷 OpenEdge AppBuilder 👹 OpenEdge Editor Test 🗳 OEUnit					
💞 Resources 🛛 🔗 Search 💿 🗇 🖨 🗟 🔽 🗖 🗖	🖞 🖸 QueryHelper.cls 🛛 🖸 ReflectionHelper.cls 🖉 CharacterDictionary.cls 🧮 🗖 🔡 DB Structure 🔲 Properties 🗄 Outline 🖾 🦳 🗖				
BPMAdapterSettings.xml	169 END METHOD.				
build.xml	170 USING Declarations				
Client.log	171 /*				
📄 debugger.pref	172 Furpose: creates, rrepares and opens a new Query wid				
🧐 project.xmi	174 Notes: You need to manually delete the guery widde				
smartcomponents server log	175 is provided for query widgets.				
	176 CreatePreparedQuery (handle) - HANDLE				
viewer 9999bda5-b6f8-0e9e-df11-fef0a26c9a38.xml	V1779 METHOD PUBLIC STATIC HANDLE CreatePreparedQuery (phBuffe				
	178 Secturentkowids (nandie, OU rowid))				
> 🔁 Customer_AutoDox2_Custom	1/9 IF NOT VALID-HANDLE (DRBUITER) OR DRBUITER:TYPE <> "B Winsentxpression (character, character, c				
de.consultingwerk.smartcompponents.ide.site	181 and a metoding (character, integer, integer) - Character, integer, inte				
Documentation	182 RETURN CreatePreparedQuery (phBuffer, QualifiedColumnName (character. handle) - CHARACTER				
ERM_Licensing	183 SUBSTITUTE ("FOR EACH &1 QueryHelper				
1 HH_Test	184 SQ QueryLargeColumns (handle) - CHARACTER				
CEUnit	185 END METHOD. S RepositionToRowidArray (handle, rowid[]) - LOGICAL				
Scripts_Irunk [^Offline*, perforce.consultingwerkcloud.com	186 Signature Character) - CHARACTER				
Referenced Assemblies	187 Purpose Creates Prenares and Opens a new Openv wid				
Procedure Libraries [netforce consultingwerkcloud.com	189 buffer handle. The Ouery will be positioned				
> > be	190 Notes: You need to manually delete the query widge				
Consultingwerk	191 is provided for query widgets.				
🕨 🗁 Demo	192				
👂 🗁 HH	▼193 [©] METHOD PUBLIC STATIC HANDLE CreatePreparedQuery (phBuffe				
🖻 🗁 Mips	194 pcQuery				
MOS	196 DEFINE VARIABLE hOuery AS HANDLE NO-UNDO.				
→ CFUnit	H H				
□ Console ※ □ ► □ ► □ ► □ ► (?) □ □	🖳 Problems 🕅 👘 🖓 🖓 🖓 🗍 🚺 Progress 🕅 🔺 P4 Pending Changelists 🛛 🕷 🌣 🖓 🗖				
ABL Console	70 errors, 1 warning, 0 infos (Filter matched 71 of 82 items) Compile files				
>/ABL_Trunk/Consultingwerk/BusinessEntityDe	Description				
>/ABL_Trunk/Consultingwerk/BusinessEntityDe	ter Errors (70 items)				
>/ABL_Trunk/Consultingwerk/BusinessEntityDe					
>/ABL_Trunk/Consultingwerk/BusinessEntityDe	😣 ** "OERA\schema\dsOrder.i" was not found. (293)				
>/ABL_Irunk/Consultingwerk/BusinessEntityDe	😣 ** "OERA\schema\dsOrder.i" was not found. (293)				
>/ABL Trunk/Consultingwerk/BusinessEntityDe	😣 ** "OERA\schema\dsOrder.i" was not found. (293)				
>/ABL_Trunk/Consultingwerk/BusinessEntityDe					
>/ABL_Trunk/Consultingwerk/BusinessEntityDe	₩ "schema\etCustomer.i" was not found. (293)				
>/ABL_Trunk/Consultingwerk/BusinessEntityDe	** "schema\etitem.i" was not found. (293)				
>/ABL_Trunk/Consultingwork/BusinessEntityDe	schemaletorderunen was not found. (293)				
>/ABL Trunk/Consultingwerk/BusinessEntityDe	** C:\Work\SmartComponents4NET\Trunk\ABL Test\				
< <u></u>	۲				
🕈 🖻 🕲 👹 Test_ABL_Trunk	Compile files: (6%)				

Consultingwerk software architecture and development

Views

- Views support the developer by navigating to code, reviewing status information, access to IDE or plug-in functionality, ...
- Views can be opened an closed
- Window Show View Dialog
- Views can be grouped together as tabs
- The views area can be split as needed
- Views or groups of views can be dragged out of the main workbench window

software architecture and dev

Elements of a View



Fast view

- Views that temporarily overlap the workbench window
- Accessed from a button in the workbench status area
- "Closed" when loosing focus, just click somewhere else – don't "X" them
- Each view can become a "fast view"
- Useful for reference style views: Class browser, online help, ...

Consultingwerk

software architecture and development

Demo

- Rearranging Views
- Class browser as fast view
- Making the ABL help a fast view

Perspectives

- Stored layout of views
- Organizing the workbench for different tasks:
 - Coding
 - Visual Designer / AppBuilder
 - Debugging
 - MyLyn planning
- Window Open Perspective Dialog

Perspectives Open Perspective Dialog Open//dge Editor Test - ABL_Trunk/Consultingwerk/Util/QueryHelper.cls - OpenEdge Architect - C:\Work\Sr Navigate Search Project OpenEdge Perforce Run Window Help Source File 🔏 💷 🦦 🔹 🐼 🕶 💁 🖌 😕 🖉 🗸 🏷 🖉 🗸 😂 🗸 🚏 OpenEdge Editor 📧 Planning 🛭 🗱 OpenEdge Debugger 🦒 OpenEdge AppBuilder 🚭 OpenEdge Editor Test 💕 OEUnit List of currently opened perspectives, allows quick switching

Consultingwerk

software architecture and development

Consultingwerk software architecture and development

Agenda

- A (short) review of OpenEdge Architect
- Views and perspectives
- Some useful keyboard shortcuts
- (Personal) preferences in OpenEdge Architect
- Configuring custom file types
- Run configurations
- External tools
- Plugin installation
- Customizing OpenEdge Architect Templates
- Open files from ABL code

A selection of keyboard shortcuts

- Ctrl-Shift-R: Open Resource
- Ctrl-O: Quick Outline in code editor
- Ctrl dot: Toggle between errors in code editor
- Ctrl-Shift-C: Check syntax
- Ctrl-S:Safe
- Ctrl-3: Open view, menu item, editor, ... (almost everything)
- Alt-Shift-P, Alt-Shift-F: New procedure, function
- Alt-Shift-M, Alt-Shift-Y: New method, new prop.

software architecture and development

Ctrl-Shift-L

- Lists even more shortcuts
- Not all may be relevant to OpenEdge Architect

Activate Editor	F12	*
Add Constructor	Alt+Shift+C	
Add Constructors from Super Class	Alt+Shift+S	
Add Destructor	Alt+Shift+R	
Add Event	Alt+Shift+E	
Add Function	Alt+Shift+F	
Add Method	Alt+Shift+M	
Add Procedure	Alt+Shift+P	
Add Property	Alt+Shift+Y	
Add Static Constructor	Alt+Shift+T	
Backward History	Alt+Left	
Build All	Ctrl+B	
Check syntax	Ctrl+Shift+C	
Close	Ctrl+W	
Close All	Ctrl+Shift+W	
Collapse	Ctrl+Numpad_Subtract	
Collapse All	Ctrl+Shift+Numpad_Divide	
Content Assist	Ctrl+Space	
Context Information	Ctrl+Shift+Space	
Сору	Ctrl+C	
Copy Lines	Ctrl+Alt+Down	
Correct Caca	CERLISHIFTE	-

Press "Ctrl+Shift+L" to open the preference page.

Consultingwerk software architecture and development

Agenda

- A (short) review of OpenEdge Architect
- Views and perspectives
- Some useful keyboard shortcuts
- (Personal) preferences in OpenEdge Architect
- Configuring custom file types
- Run configurations
- External tools
- Plugin installation
- Customizing OpenEdge Architect Templates
- Open files from ABL code

Main menu-bar, Window -> Preferences



Consultingwerk

software architecture and development

- General Editors Text Editors
 - Insert spaces for Tabs, Tab width, show line numbers, …
- General Search
 - Reuse editors ... turned off
- OpenEdge Architect Editor
 - As you type: Case (upper or lower), case keywords, depending on your style: expand keywords

General – Workspace

Refresh automatically (on fast machines, local source code)

- Refreshing causes Eclipse to search the file system for new, deleted, modified files
- Sync's Eclipses view of the world
- Files not in sync will be skipped on compile, search, etc...
- Alternative is manual refresh (e.g. F5 key)

Customizing OpenEdge Architect

- OpenEdge Architect Editor Build
 - Auto check syntax (while typing)
 - Maximum number of errors reported per build: much higher than 100 (e.g. 100,000) when you have
 - templates or scratch files
 - migration routines that typically never compile
 - just never cleaned up source source code (Copy of test.p, test_backup.p)

Customizing OpenEdge Architect

- OpenEdge Architect Editor Templates
 Eix MES Template (Massage statement)
 - Fix MES Template (Message statement)
 - mfe Template

	OE New Tem	plate 📃 🗌 🗙
	<u>N</u> ame:	mfe Context: OpenEdge 💌 🗹 Automatically insert
	Description:	Mike Fechner - comment
	<u>P</u> attern:	* Mike Fechnel \${cursor} */ Consultingwerk Lte . \${date}
		Insert <u>V</u> ariable
Customizing	?	OK Cancel

Consultingwerk

software architecture and development

Link with Editor (Resource view)

 Keeps resource view (file browser) and current editor in sync when switching editor tabs



Customizing OpenEdge Architect

Error filters

- Use error filters dialog to configure filters
 - default (show all) usually not helpful on large projects
 - my preference is 'selected element and its children'
 - or use working sets

📃 Console 🔝 Problems 🔀 🧟 Tasks				
0 errors, 0 warnings, 0 infos				Carfin we the filters to be peolied to this vis
Description 🔺	Resource	Path	Location	Configure the filters to be applied to this view
	1			

Consultingwerk software architecture and development

Agenda

- A (short) review of OpenEdge Architect
- Views and perspectives
- Some useful keyboard shortcuts
- (Personal) preferences in OpenEdge Architect
- Configuring custom file types
- Run configurations
- External tools
- Plugin installation
- Customizing OpenEdge Architect Templates
- Open files from ABL code

Configuring custom file types

- Purpose of configuring custom file types
 - Defining the editor choices and defaults
 - Color coded source code editor for custom file extensions (.f include files etc.)
 - Configuring complilable file types
 - Include file tracking, hyperlink navigation

Consultingwerk

software architecture and development

Open Edge Builder Properties

type filter text	Build 🗘 🔶	• •	
 General Consultingwerk Help Install/Update JavaScript 	Extensions <u>C</u> ompilable file extensions: p,w,cls,pgen <u>AppBuilder file extensions:</u> w Include file extensions: i		add custom
JET Transformations OpenEdge Architect Advanced Detabase Connection	SpeedScript extensions: html,htm		file extensior
Debug A Editor Annotations	Actions Compile on sa <u>v</u> e if required		
Assistance Build Colors Templates (macrc Meta Catalog	Syntax check Automatically check syntax Show all syntax check message summaries Show help message detail with syntax check messages		
Server Shared AVM Startup	Maximum number of errors reported per build: 100000		
 Tools for Business Log Views Visual Designer 	Restore <u>D</u> efaults <u>Apply</u>	y	

Content type definition

 Add extension to "OpenEdge ABL Source Files" content types to enable color coding

type filter text	Content Types	🔶 🕶 🔿 👻	
General Appearance Compare/Patch	See <u>'File Associations'</u> for associating editors with file types. Content types:		
Content Types Editors File Associations Structured Text Edito	CSS DTD HTML		
 Text Editors Keys Network Connections Perspectives Soarch 	Java Properties File Java Source File JavaScript Source File JET Template		Ξ
Search Security Startup and Shutdown Web Browser Workspace	OpenEdge ABL Source Files OpenEdge Tools for Business Logic Template Refactoring History File Refactoring History Index		Ŧ
Consultingwerk	File associations:		
Help Install/Update JavaScript	*.f *.cls (locked) *.htm (locked)	Add	

Consultingwerk

software architecture and development

File Associations

- Add associated editors
- Define default editor for file type

Server

Tasks

Service Policies

	The Associations
General Appearance Compare/Patch Content Types Editors File Associations Structured Text Edito Text Editors Keys Network Connections Perspectives Search Security Startup and Shutdown Web Browser Workspace Consultingwerk	See 'Content Types' for content-type based file associations. File types: C *.cls *.dgm 1 *.f P *.html i *.i *.js P *.p P *.pgen *.server *.server *.setml *.server *.setml *.set
Help	in *.wsdl
Install/Update	
JavaScript	
JEI Transformations	
OpenEdge Architect	

Sample custom file type .f (Form include)

- Syntax color coding and syntax check
- Double click in resources view to open ABL code
- Include file icon in resources tree

OpenEdge Editor - TestProject/test.f - TestProject/test.f - TestProject/test.f - TestProject/	enEdge Architect - C:\Temp\Test
File Edit Source Navigate Search Project Op	penEdge Run Window Help
🔁 🕶 📄 🛛 🔏 🖘 🧐 🏇 🕶 🕥 🕶 💁	▼ 🗀 🖋 ▼ 🖞 ▼ 🖗 ▼ 🏷 🗢 ▼ → ▼
🗈 🥵 OpenEdge Editor	
Sesources 🛛 🗖 🗋 tes	t.f 🛛
(-) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2	FORM TODAY
😕 TestProject	WITH FRAME myFrame.
_IL Procedure Libraries	
x .project	
i test.f	tax 🛛 🕅
Syntax ** Unal	check: ble to understand after "FORM". (247) OK

Consultingwerk software architecture and development

Agenda

- A (short) review of OpenEdge Architect
- Views and perspectives
- Some useful keyboard shortcuts
- (Personal) preferences in OpenEdge Architect
- Configuring custom file types
- Run configurations
- External tools
- Plugin installation
- Customizing OpenEdge Architect Templates
- Open files from ABL code
Run configurations

- Create a default "Run Configuration" by running a .p, .cls, .w from the run button
- Can be customized using Run Configurations Dialog
- Defaults to project settings
- Typically starts new AVM for each run



Run configurations

- Define how ABL code is executed
- Database connections
- Propath definition
- Startup parameters
- Graphical dialog
- Log file setting
- Progress version
- TTY/GUI

software architecture and development

Review Run configation

Open "Run Configurations" Dialog

OE OpenEdge Editor - Sample/src/classic/sta	rt.p - OpenEdge Architect - C:\Us				
File Edit Source Navigate Search Project	OpenEdge Run Window Help				
📬 - 🔡 🖆 🔏 💷 🦦 🏇 - 💽	- 💊 - 🛛 🛷 - 🛛 🎦 - 🖓 -				
📑 🦉 OpenEdge Editor	1 start				
Resources 🖾 🗖 🗆	Run As 🔹 🕨				
Bun Configurations					
Organize Favorites					
🛛 🖃 🚰 Sample 🥢 🦉	2 Durnaga				
📃 🕀 🗓 Procedure Libraries	s Furpose :				
🗄 🗁 🔁 src 💦 🔪 🔪	4				
E classic	5 Syntax :				
logindialog w	6				
Description					
w order.w					

software architecture and development

X

t Settings...

Review Run configation

E Batch mode

OE Run Configurations

FŶ.

type filter text

Create, manage, and run configurations

Create a configuration to launch an OpenEdge application.

		Ľ
* 🗈 🗙 🕒 🌩 🔹	Name: start	
ype filter text	OE Main 🖂 Startup 🎻 PROPATH 🤣 Databases 📄 ABL 🥥 Culture 📨 Performance 🔨 Logging	» 2
Java Applet Java Application Java Transformation	Sample Browse Copy Project Setti	ings.
OpenEdge Application Start	Startup program: Run this program Run selected program in workspace	
OpenEdge AppServer	src\classic\start.p	

	Workspace File System Variables
Working directory: C:\Work\AppBuilderSample\AppBuilderSampleDe	ev
	Workspace File System Variables
OpenEdge AVM C Use OpenEdge project runtime Start new OpenEdge AVM	 Automatically start this launch configuration Automatically restart this launch configuration
OpenEdge version: 10.2B	

Consultingwerk software architecture and development

Shared File

 A Shared File may be used to distribute Run Config to team members (.launch file checked in to SCM)

0E Run Configurations		×
Create, manage, and run co Create a configuration to launch an C	Infigurations OpenEdge application.	
Image: Second state st	Name: start Image: ABL Culture Performance Logging Environment Image: Common Save as Image: Local file Image: Shared file: \sample Display in favorites menu Image: Console Encoding Image: Output of the state Image: Image: Image: Image: Image: Console Encoding Image: <	mon 3 Browse

Using Run configuration

- Testing with different DB's, or no DB at all
- Changing client logfile settings
- Prefer to start new OpenEdge AVM (not use the project AVM for your own launches)

Consultingwerk software architecture and development

Agenda

- A (short) review of OpenEdge Architect
- Views and perspectives
- Some useful keyboard shortcuts
- (Personal) preferences in OpenEdge Architect
- Configuring custom file types
- Run configurations
- External tools
- Plugin installation
- Customizing OpenEdge Architect Templates
- Open files from ABL code

External Tools configuration

- Similar to Run Configuration but for OS commands, scripts, executables
- Command may receive parameters from Eclipse (selected file, folder etc.)
- Build possible before launch
- Refresh possible after launch
- Console output may be captured by Eclipse

Poor man's Eclipse plugin

Customizing OpenEdge Architect



Portable through the use of variables

- Location of workspace resources, projects, files,
 ... variable
- Reuse in multiple projects

Choose a variable (? = any character,	* = any string):
password_prompt project_loc	•
project_name project_path resource_loc	=
resource_name resource_path	-
Argument:	Edit Variables
Variable Description:	Configure
Returns the absolute file system path selected resource when no argumen workspace relative path.	h of a resource. The target resource is the t is specified, or the resource identified by a
0	OK Cancel

Consultingwerk

software architecture and development

Consultingwerk software architecture and development

Demo: External Tools configuration

- Integrating AutoDox2 (from Joanju)
- Remove R-Code batch file

Consultingwerk software architecture and development

Agenda

- A (short) review of OpenEdge Architect
- Views and perspectives
- Some useful keyboard shortcuts
- (Personal) preferences in OpenEdge Architect
- Configuring custom file types
- Run configurations
- External tools
- Plugin installation
- Customizing OpenEdge Architect Templates
- Open files from ABL code

Eclipse Plugins

- Java classes following Eclipse specs
- Typically provide additional functionality to the IDE
- Plugins may provide additional functionality to other plugins
- Plugins may have dependencies to other Plugins
- Plugin installation using Eclipse wizards or copy of Java binaries and further files

Typical Eclipse Plugins

- Eclipse community projects
 - Mylyn, Bug tracking integration, Task focussed UI, time tracking
- Commercial vendors
 - Tugboat, Roundtable TSMS, Roundtable Team
 - Perforce
- Open source Community
 - NTail
 - Grep console

Eclipse Plugin Installation

- In follow instructions of the Plugin vendor
- Help -> Software Updates
- Help -> Classic Software Updates -> Find an Install
- Installation from "Update sites"
- Eclipse community project update sites typically already known to the workbench

cofficers anothitacture and davalanment

E Software Updates and Add-ons			
Installed Software Available Software			
mylyn			
Name	Version	Install	
🔺 🥅 🖏 Ganymede Update Site			
III C and C++ Development			
🔲 🌆 Mylyn Bridge: C/C++ Development	5.0.2.200902130801	<u>P</u> roperties	
Collaboration Tools			
🔲 🌆 Dynamic Languages Toolkit - Mylyn Integration (Incubation)	0.95.1.v20080626-2043-08T07w31191_1402545		
🔲 🦗 Mylyn Bridge: C/C++ Development	5.0.2.200902130801	Add Site	
🔲 🦗 Mylyn Bridge: Eclipse IDE	3.0.5.v20090218-1800-e3x		
🔲 🦗 Mylyn Bridge: Java Development	3.0.5.v20090218-1800-e3x	Manage Sites	
🔲 🖓 Mylyn Bridge: Plug-in Development	3.0.5.v20090218-1800-e3x		
🔤 🦗 Mylyn Bridge: Team Support	3.0.5.v20090218-1800-e3x		
🔄 🎝 Mylyn Connector: Bugzilla	3.0.5.v20090218-1800-e3x	Re <u>f</u> resh	
Mylyn Focused UI (Recommended)	3.0.5.v20090218-1800-e3x		
Mylyn Task List (Required)	3.0.5.v20090218-1800-e3x		
Image: A the second			
Image: Perforce Learn Provider (P4Eclipse) - Optional	2010 1 225011		
Perforce Mylyn Connector	2010.1.275861		
Show only the latest versions of available software			
Include items that have already been installed			
Open the 'Automatic Undates' preference page to set up an automatic undate schedu	de		

?

Eclipse Plugins Demonstration

- Examples of Eclipse Plugins and their installation
 - Mylyn
 - http://www.eclipse.org/mylyn/
 - Perforce SCM (Team Provider)
 - http://www.perforce.com/product/components/eclipse_plugin
 - Grep Console
 - http://marian.musgit.com/projects_grepconsole.php

Consultingwerk

software architecture and development

Consultingwerk software architecture and development

Agenda

- A (short) review of OpenEdge Architect
- Views and perspectives
- Some useful keyboard shortcuts
- (Personal) preferences in OpenEdge Architect
- Configuring custom file types
- Run configurations
- External tools
- Plugin installation
- Customizing OpenEdge Architect Templates
- Open files from ABL code

Customizing Templates made easy

- OpenEdge Architect Author name for new files defaults to OS-login (e.g. Administrator)
- Use vmargs –Duser.name Startup parameter to override this
- http://blog.consultingwerk.de/consultingwerkblog/2011/08/customizi ng-openedge-architect-templates-made-easy-personalization/

C:\Progress\OpenEdge102B\oeide\eclips e\eclipse.exe -showlocation -vm "C:\Progress\OpenEdge102B\jre\bin\jav aw.exe" -vmargs -Duser.name="Mike Fechner / Consultingwerk Ltd."

software architecture and development

Customizing Templates made easy

ſ	OE New ABL P	rocedure	
	Create an . Specify a na	ABL procedure file me for the procedure file.	
	<u>C</u> ontainer:	\ABL_Trunk	Browse
1	<u>File name:</u>	custom.p	
	Description:		
			Ŧ
	<u>P</u> urpose:		*
			Ŧ
	<u>A</u> uthor:	Mike Fechner / Consultingwerk Ltd.	
		Add routine-level error handling	
ור	nizina OpenF	dae Architect	55

Customizing OpenEdge Architect

Customizing Templates using JET

- Overriding existing templates for new files, e.g. modifying the file header comment
- Overriding existing templates for new code blocks, e.g. new internal procedure wizard, new method, new property
- Additional new file templates
 - Currently only supported for .p file extension (functional limitation)
 - Might be relaxed in 11.1

Customizing Templates

- http://communities.progress.com/pcom/docs/DO C-16387
- Documentation a bit outdated (10.1B)
- Works with 10.2B and OE11 with a little tweaking and creativity ⁽²⁾
- Use existing templates as a starting point, create copies of files in DLC\oeide\eclipse\plugins\ com.openedge.pdt.text_version\templates

Customizing Templates

- Eclipse templates based on JET: Java Emitter Template
- Plugin installation required: Java Development Tools (JDT) and Eclipse Modeling Framework (EMF)
- Use version appropriate for your OpenEdge Architect installation ... (Eclipse version used)
- JDT and EMF Plugins only required for the developer that creates templates, not those using them

Eclipse Plugins

Eclipse Plugins for my 10.2B06 installation

Consultingwerk

software architecture and development



Java Build Path

 Java Build Path from documentation needs additional .jar file in 10.2B/11.0

type filter text
Resource Builders Java Build Path Java Code Style Java Compiler Java Editor Javadoc Location JET Settings OpenEdge Project References Run/Debug Settings Task Tags Validation

software architecture and development

OpenEdge Architect Templates

lugins com.openedge.pdt.text_10.2.1.06	templates	✓ templates
nmen 🔻 Freigeben für 🔻 Brennen	Neuer Ordner	:==
Name	Änderungsdatum	Тур
abfunction.ijet	19.03.2012 21:44	UET-Datei
abfunctionproto.ijet	19.03.2012 21:44	UET-Datei
abprocedure.ijet	19.03.2012 21:44	UET-Datei
annotation.ijet	19.03.2012 21:44	UET-Datei
class.cjet	19.03.2012 21:44	CJET-Datei
constructor.ijet	19.03.2012 21:44	UET-Datei
custominclude.ijet	19.03.2012 21:44	UET-Datei
CustomInclude.template	19.03.2012 21:44	TEMPLATE-Datei
customprocedure.pjet	19.03.2012 21:44	PJET-Datei
CustomProcedure.template	19.03.2012 21:44	TEMPLATE-Datei
destructor.ijet	19.03.2012 21:44	UET-Datei
event.ijet	19.03.2012 21:44	UET-Datei
iii field.ijet	19.03.2012 21:44	UET-Datei
function.ijet	19.03.2012 21:44	UET-Datei
functionproto.ijet	19.03.2012 21:44	UET-Datei
generator.skeleton	19.03.2012 21:44	SKELETON-Datei
interface.ijet	19.03.2012 21:44	UET-Datei
method.ijet	19.03.2012 21:44	UET-Datei
NewProcedureTemplate.template	19.03.2012 21:44	TEMPLATE-Datei

Customizing Oper

software architecture and development

Template generation sequence

 Sequence executed whenever source file is modified





Customizing OpenEdge Architect

Consultingwerk software architecture and development

Demo

- Template customization environment
- Customized method template
- Customized new class template
- Review Java functions
- Review code in JET Template that checks for class properties

Consultingwerk software architecture and development

Agenda

- A (short) review of OpenEdge Architect
- Views and perspectives
- Some useful keyboard shortcuts
- (Personal) preferences in OpenEdge Architect
- Configuring custom file types
- Run configurations
- External tools
- Plugin installation
- Customizing OpenEdge Architect Templates
- Open files from ABL code

Opening files from ABL code

- Eclipse (Java) and ABL runtime separate processes
- Communication via network protocol
 - Java to AVM (compile command)
 - AVM to Java (certain UI operations)
- ABL code may us OS-GETENV ("OEA_PORT") to determine the network port

Opening files form ABL code

- Public API's defined in adecomm/oeideservice.i
- Supports querying basic project properties, opening views for ABL windows (like OEUnit does) and opening files
- getProjectName ()
- openEditor ()

software architecture and development

Sample Open Debug Listing

```
ROUTINE-LEVEL ON ERROR UNDO, THROW.
DEFINE INPUT PARAMETER pcFileName AS CHARACTER NO-UNDO.
{adecomm/oeideservice.i}
  DEFINE VARIABLE cFileName AS CHARACTER
                                         NO-UNDO .
DEFINE VARIABLE cProject AS CHARACTER NO-UNDO .
DEFINE VARIABLE oFileInfo AS System.IO.FileInfo NO-UNDO .
DEFINE VARIABLE cDebugList AS CHARACTER NO-UNDO.
ASSIGN cProject = getProjectName ()
      cFileName = SUBSTRING (pcFileName, 2)
      oFileInfo = NEW System.IO.FileInfo (cFileName)
      cDebugList = /*createLinkedFile ("":U, ".p")*/
                 SESSION:TEMP-DIRECTORY + "debuglist-":U + oFileInfo:Name.
COMPILE VALUE (cFileName)
   SAVE = FALSE
   DEBUG-LIST VALUE (cDebugList)
   NO-ERROR .
                                           Function prototype defined
                                                 in oeideservice.i
openEditor
    (?,
     cDebugList,
     "UNTITLED",
                                                                     67
     ?).
```

software architecture and development

Sample Open Debug Listing

🖻 debug-list.p 🛛 🔛 Customization Editor 🖾			
OpenEdge Customization Options			III 🥦 🖬 🚡 🗞
Available Extension Points		Action Details	
 Menu / Toolbar Entries Debug Listing Editor Context Menu New Templates Template Overrides 	Add Remove	Name*: Accelerator: Icon: Tooltip: Program name*: Parameters: Configuration: Send file name of the current selection	Debug Listing icons/oelogo16.gif Browse Consultingwerk/Studio/DebugList/debug-list.p Browse Image: Show on menu and toolbar
4 [] >		•	4
▼ Plugin Details			
Version*: 1.0.0			
Main			

_idestartup.p

- Optional ABL procedure file (create it when needed)
- Will be executed once when Project AVM is started
- May be used to initialize developers Framework code, when required for Visual Designer or AppBuilder, etc.

More info...

- Getting started videos <u>http://communities.progress.com/pcom/docs/DO</u> <u>C-101140</u>
- Top OpenEdge Architect FAQ, Sunil Belgaonkar <u>http://communities.progress.com/pcom/communi</u> <u>ty/psdn/exchange/trackprod6</u>
- Consultingwerk blog openedge-architect tag <u>http://blog.consultingwerk.de/consultingwerkblog</u> /tag/openedge-architect/

software architecture and development



Customizing OpenEdge Architect

software architecture and development



Customizing OpenEdge Architect