



TAURUS for RDz

Integrating Tools in RDz

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GSE Enterprise Modernization Meeting, Copenhagen

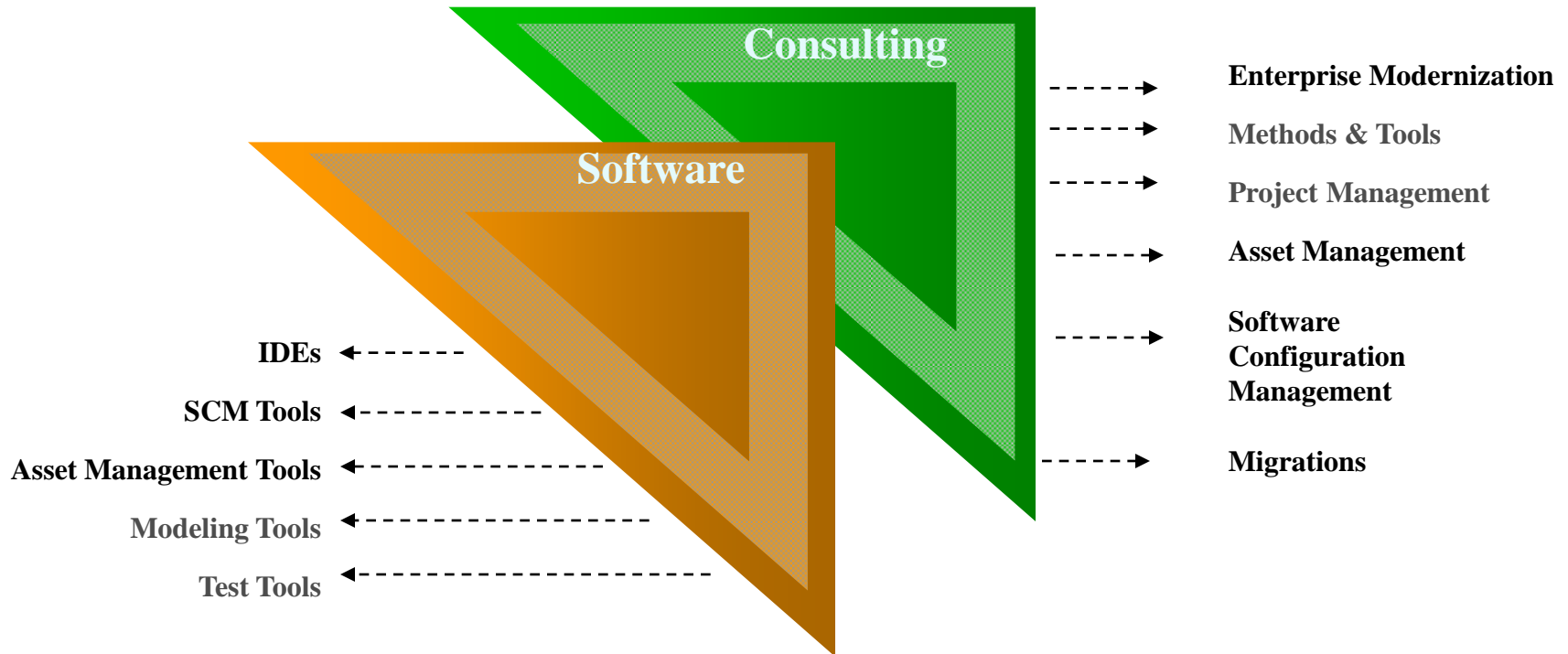
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- Overview integrating tools in RDz
- TAURUS concepts and architecture
- TAURUS live Demo
 - Running a sample application
 - Configuring a sample application
- Evaluation

Your Specialist for the Software Development Process



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➤ Initial Situation

- Existing Development Tools for z, e.g.
 - Based on ISPF
 - In-house Development Procedures
 - Software Source and Configuration Management on z
 - Home-grown
 - Standard Product (e.g. SCLM, Endeavor, ChangeMan)
 - Customer specific user interface
- Implementation of RDz

➤ Requirements:

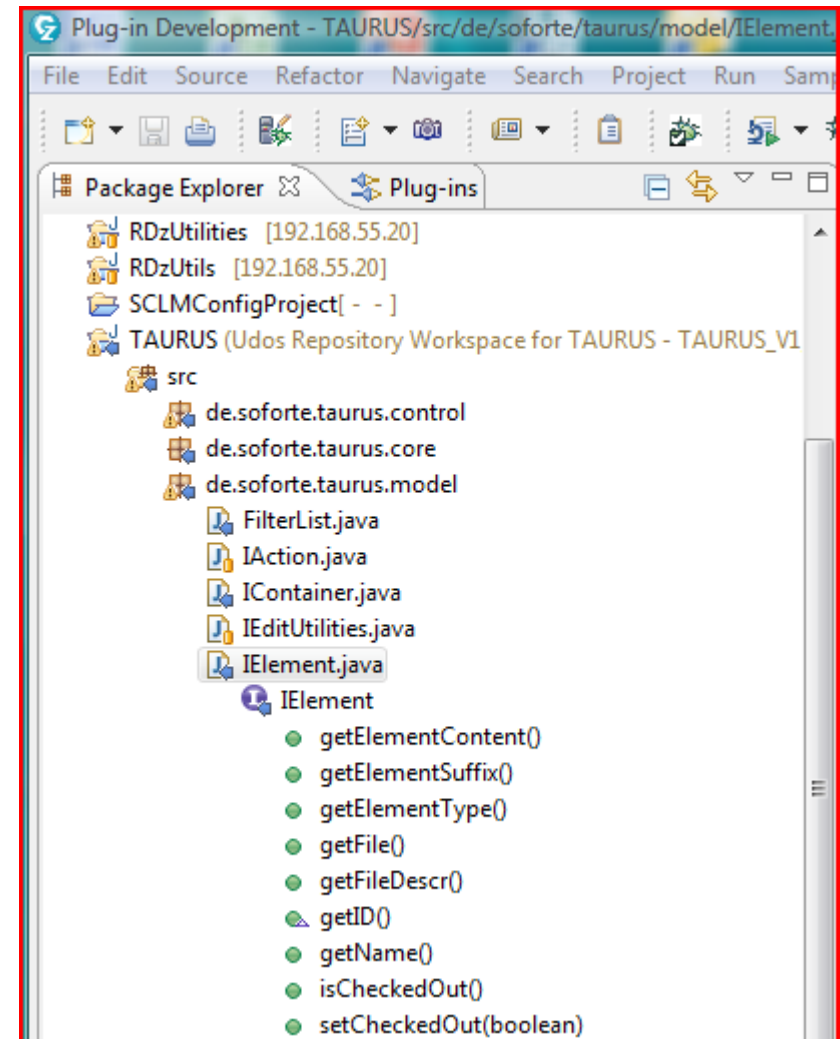
- Cost-effective integration of existing mainframe or distributed development tools into RDz
- Keep existing processes stable (1. Step)

4 already existing alternatives integrating ISPF tools in RDz:

- Menu Manager
 - Integrating non complex tools
 - Working with the RDz project view,
 - Supported to extend RDz Project View, LPEX, Remote Systems View
 - Not supported with SCLM/DT, CARMA, ...
- RDz plug-in development
 - High flexibility to integrate tools
 - High effort, high skill
- HATS
 - Integrating complex mainframe tools, e.g.
 - ISPF tool is not maintainable
 - No source available
 - Cannot use two HATS applications for TSO/ISPF at the same time
- CARMA
 - Integrating a mainframe SCM tool
 - Mainframe configuration and programming
 - Often plug-in development necessary

Details see: EM GSE presentations from Montpellier or
<http://www.soforte.com/en/infos/vortraege/index.html>

- Navigator contains folders and files
- UI concepts optimized for JAVA development
 - Tree view with
 - Projects
 - Packages
 - Classes
 - Methods
- No table support for Java packages and Classes
 - not necessary?
 - Sort by name
 - Names are self-explanatory
 - Tree levels are well-arranged



Menu	Functions	Confirm	Utilities	Help			
BROWSE		SCLM.DEV1.SOURCE			Row 00001 of 00026		
Command ==>					Scroll ==>		CSR
Name	Prompt	Size	Created	Changed			ID
FLM01XY		13	2010/02/26	2010/09/06	11:41:44		SOFJK
TESTUP2		30	2010/08/26	2010/09/05	19:31:42		SOFCD
FLM01EQU		21	2009/06/18	2010/08/31	14:21:56		SOFCD
TESTUP1		32	2010/08/30	2010/08/30	12:00:07		SOFCD
FLM01AD9		31	2010/08/16	2010/08/27	14:51:14		SOFRP
FLM01MD6		19	2009/06/18	2010/08/27	08:01:28		SOFJK
FLM01CDT		7	2009/11/11	2010/08/25	11:43:38		SOFCD
SOFUP1		12	2010/01/11	2010/08/25	11:43:13		SOFCD
FLM01INC		10	2009/11/12	2010/08/24	14:20:57		SOFRP
FLM01CD8		28	2010/07/07	2010/08/18	16:15:04		SOFUC
TE06DB2		141	2010/08/16	2010/08/18	16:09:27		SOFCD
FLM01MD2		18	2010/01/31	2010/08/18	16:07:03		SOFRP
TE01DB2		141	2010/02/12	2010/08/10	11:24:53		SOFCD
TE02DB2		142	2010/02/18	2010/08/10	11:16:19		SOFCD
TESTDB2		141	2010/02/11	2010/08/10	10:55:55		SOFCD
T01CDCB		1	2009/12/22	2010/08/04	16:28:30		SOFCD
T00COB		33	2009/12/03	2010/08/04	16:25:25		SOFCD
T01COB		81	2009/12/22	2010/07/18	16:54:57		SOFUP
FLM01CD7		25	2010/06/03	2010/06/03	11:15:27		SOFCD
INK0006		26	2010/03/06	2010/04/07	10:40:23		SOFJK
TE05DB2		141	2010/03/01	2010/03/03	13:09:52		IBMUSER
TE00DB2		141	2010/02/10	2010/02/18	18:59:11		IBMUSER
STSP00		41	2009/12/09	2009/12/09	12:30:29		SOFRP
FLM01CIN		0	2009/11/12	2009/11/12	15:44:57		SCLM
FLM01MD1		0	2009/07/14	2009/07/14	15:29:06		SCLM
FLM01MD3		0	2009/06/18	2009/06/18	10:13:47		SCLM

- Navigation supported using dialogs (no tree structure)
- Files are displayed using table views with sortable columns

TAURUS

in development, planned availability: end of 2010

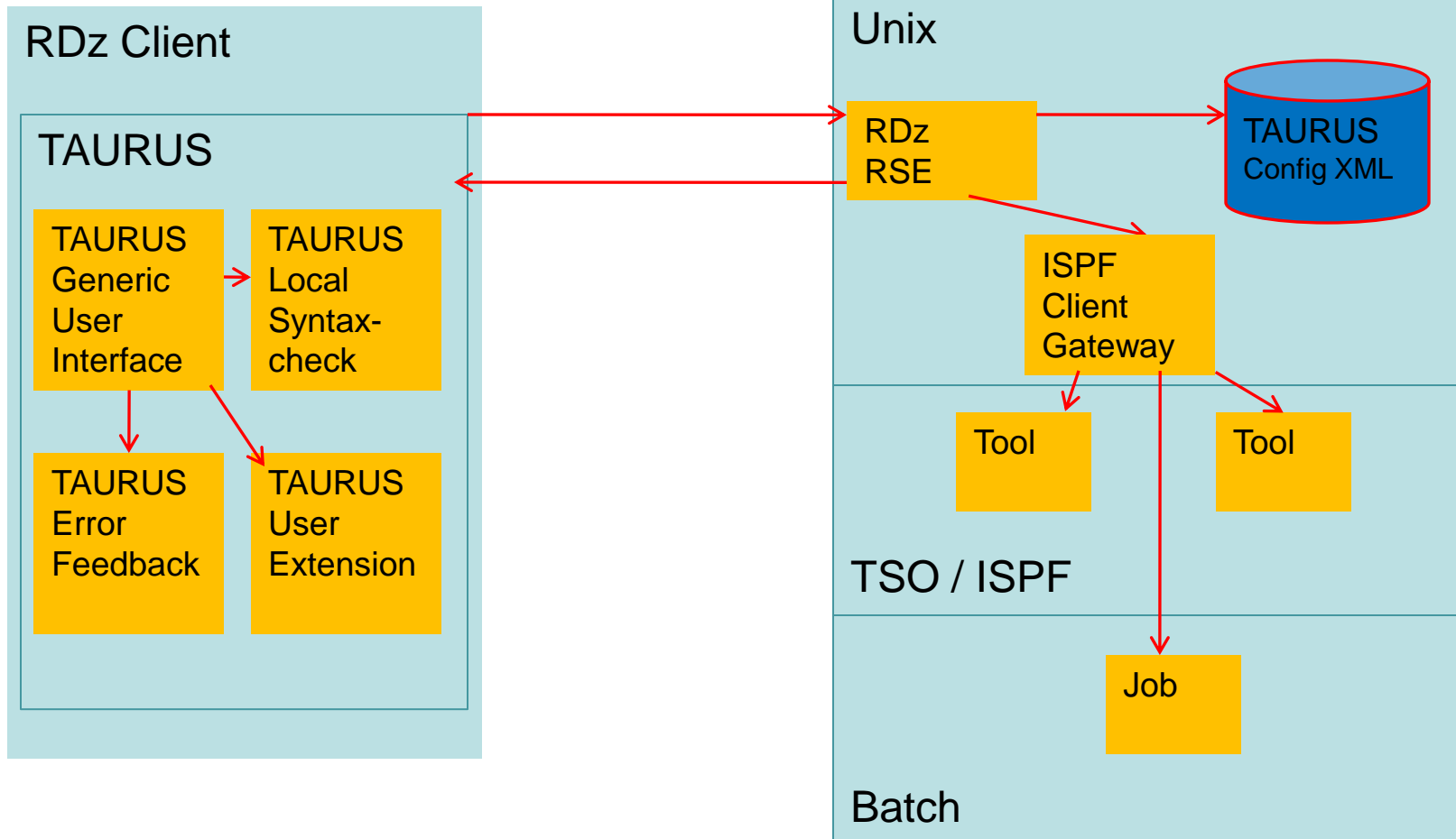
➤ TAURUS

- Tool **A**ttachment **U**tility and **R**epository based **U**ser Interface **S**upport
- Generic user interface to integrate mainframe and distributed tools into RDz
- TAURUS configuration
 - XML based Configuration using the Eclipse Modeling Framework (EMF)
 - Flexible user interface configuration
 - Configuration of the tool attachment
- TAURUS Menu Manager
 - Configurable menus

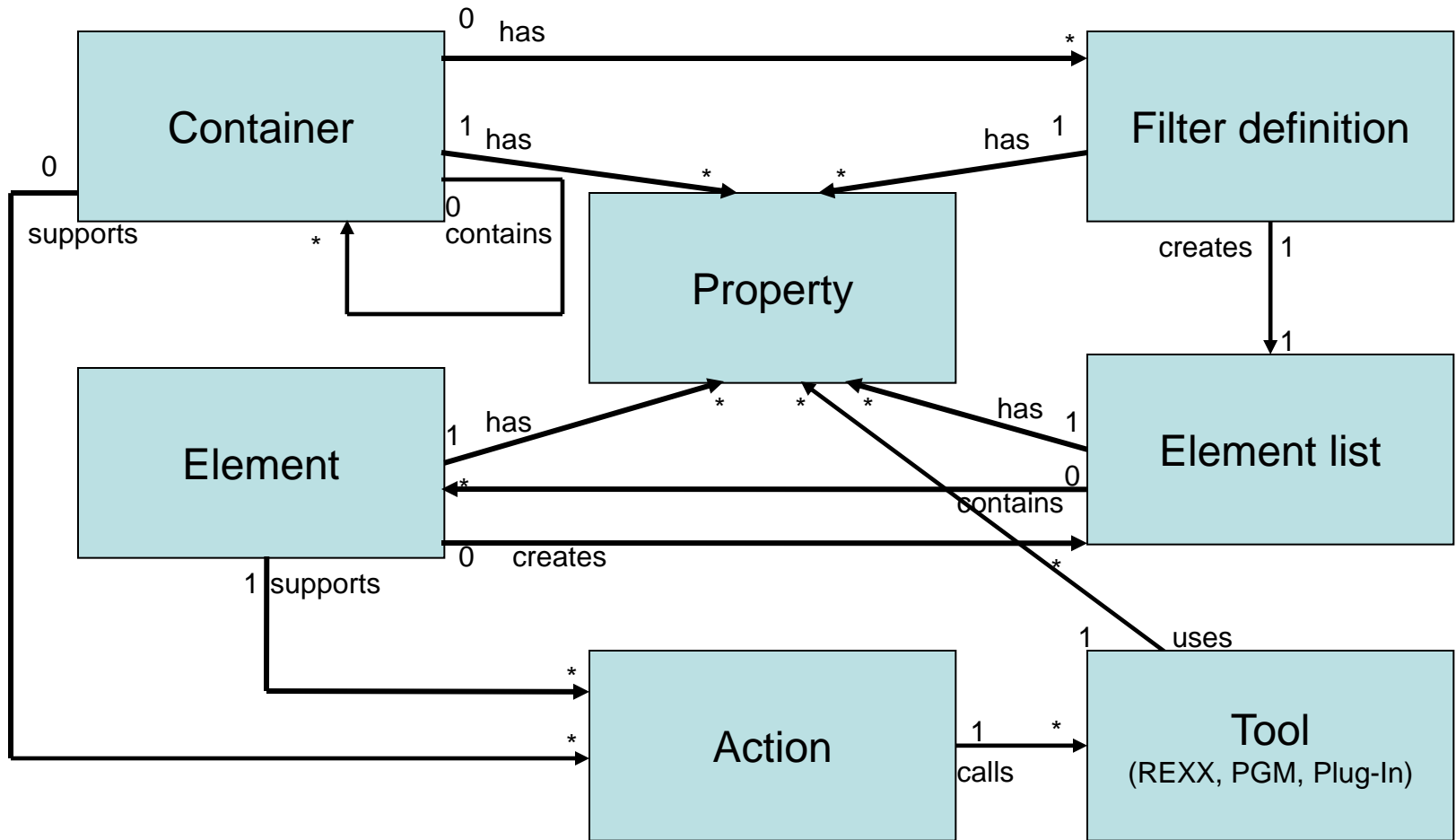
TAURUS technical Architecture

Windows

z/OS



TAURUS Architecture Model (simplified)



- User Interface Configuration
 - Tree structure
 - Table based element lists
 - Filter view
 - Element actions and properties
 - Container actions and properties
 - Filter actions and properties
- Configuration of the Tool Attachment (Action)
 - Mapping of mainframe and/or distributed tools to UI-Actions
 - Definition of tool input-/output parameters
 - Definition of file input/output
 - Mapping menus to actions
- Configuration to integrate standard RDz Functions in TAURUS Menus, e.g.
 - Error Feedback
 - Syntax check
- Menu Manager
 - Configurable menus
 - Input dialog
 - Display dialog
 - Selection dialog

- **Generic TAURUS Client**
 - Dynamically defined user interface based on the TAURUS XML configuration
 - **Tree View**
 - container structure
 - container actions
 - **Filter Table View**
 - Definition of search criteria for elements
 - Filter actions
 - **Element List Table View**
 - Element actions
 - **Properties View**
 - Container properties
 - Element properties
 - Filter properties
 - Supports **local and remote syntax check**
 - Supports **error feedback**
 - Supports **remote edit and/or local edit**
 - Supports **dynamic menus to enter, display or select data**

TAURUS Example – TAURUS Perspective

The screenshot illustrates the TAURUS workflow:

- TAURUS Contain:** A tree view showing the project structure: Taurus SCLM Application > SCLM > DEV1 > SOURCES.
- TAURUS Filter Dialog:** A dialog box for creating a filter. Fields include:
 - Filename: SCLM Demo Sources
 - Project*: SCLM
 - Projectdefinition*: SCLM
 - Startgroup*: DEV1
 - Type*: SOURCE
 - Membername*: *
 - Hierarchy-flag*:
- TAURUS Filter View:** A table listing filters:

Filter Name
TAURUS architecture definition
TAURUS REXX
TAURUS Skeletons
SCLM Demo Sources
SCLM demo architecture d

 A context menu is open over 'SCLM Demo Sources' with options: New Filter, Delete Filter, Change Filter.
- TAURUS Element Table View:** A table showing source members:

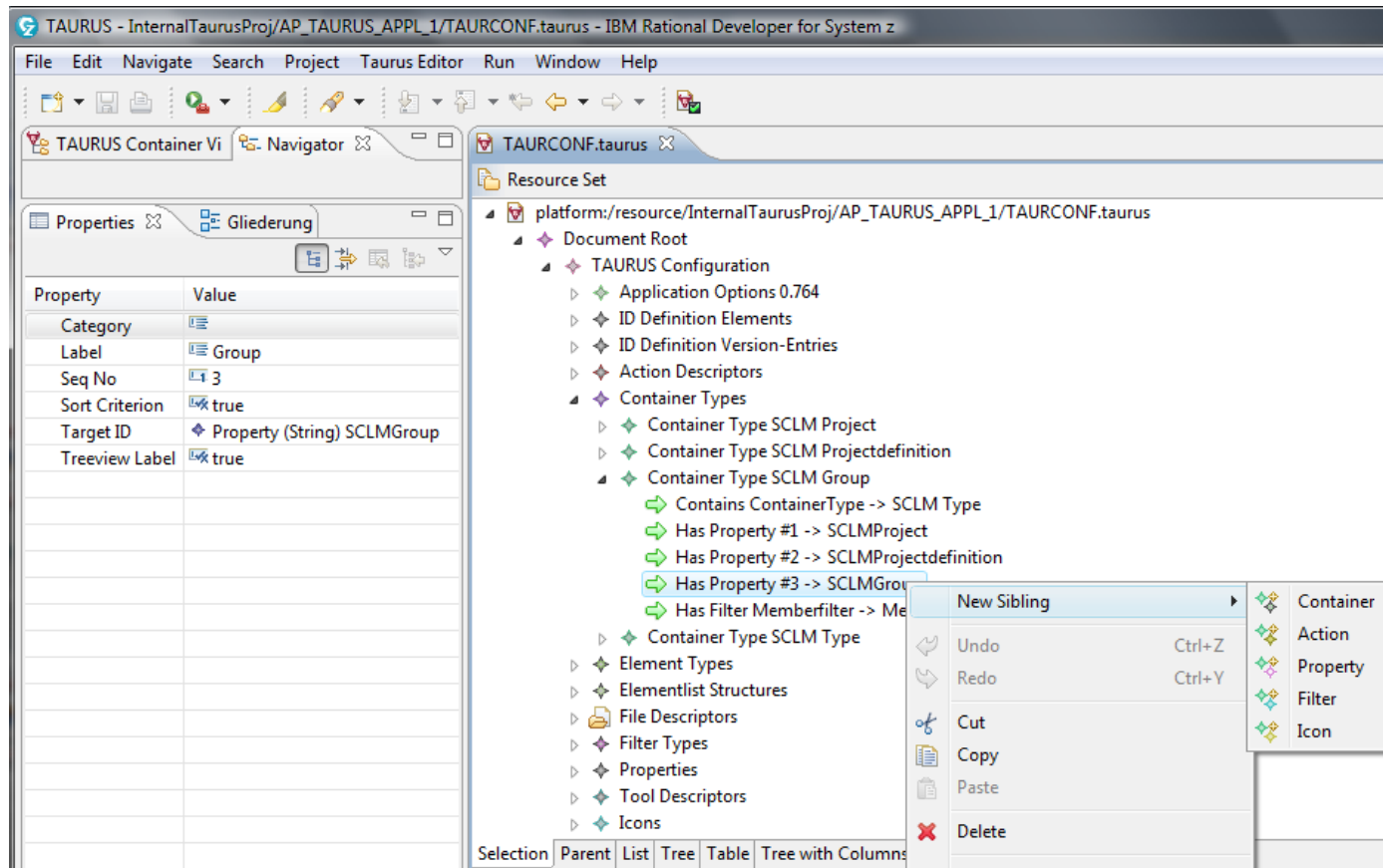
Project	Group	Type	Member	Change Use...	Change Date Time	Checked Out
SCLM	DEV1	SOURCE	STSP00	SOFRP	09/12/09 12:30:29	
SCLM	DEV1	SOURCE	T00COB	SOFCD	10/08/0	
SCLM	DEV1	SOURCE	T01CDCB	SOFCD	10/08/0	
SCLM	DEV1	SOURCE	T01COB	SOFUP	10/07/1	
SCLM	DEV1	SOURCE	TE00DB2	IBMUSER	10/02/1	
SCLM	DEV1	SOURCE	TE01DB2	SOFCD	10/08/1	
SCLM	DEV1	SOURCE	TE02DB2	SOFCD	10/08/1	
SCLM	TEST	SOURCE	TE03DB2	IBMUSER	10/02/1	
SCLM	RELEASE	SOURCE	TE03DB2	IBMUSER	10/02/1	
SCLM	RELEASE	SOURCE	TE04DB2	IBMUSER	10/02/1	
SCLM	DEV1	SOURCE	TE05DB2	SOFJK	10/03/0	
SCLM	DEV1	SOURCE	TE06DB2	SOFCD	10/08/1	
SCLM	DEV1	SOURCE	TESTDB2	SOFRP	10/08/1	
SCLM	DEV1	SOURCE	TESTUP1	SOFUP	10/09/1	
SCLM	TEST	SOURCE	TESTUP2	SOFRP	10/09/13 18:27:16	
SCLM	DEV1	SOURCE	TESTUP2	SOFRP	10/09/14 12:11:18	

 A context menu is open over the 'TESTUP1' row with options: Edit, Remote Browse, Check-Out, Check-In, Promote, Build, Local Syntax Check, Show Versions, Create SCLM Dependencies List, Refresh Element Properties.
- Properties:** A table showing properties for the selected element:

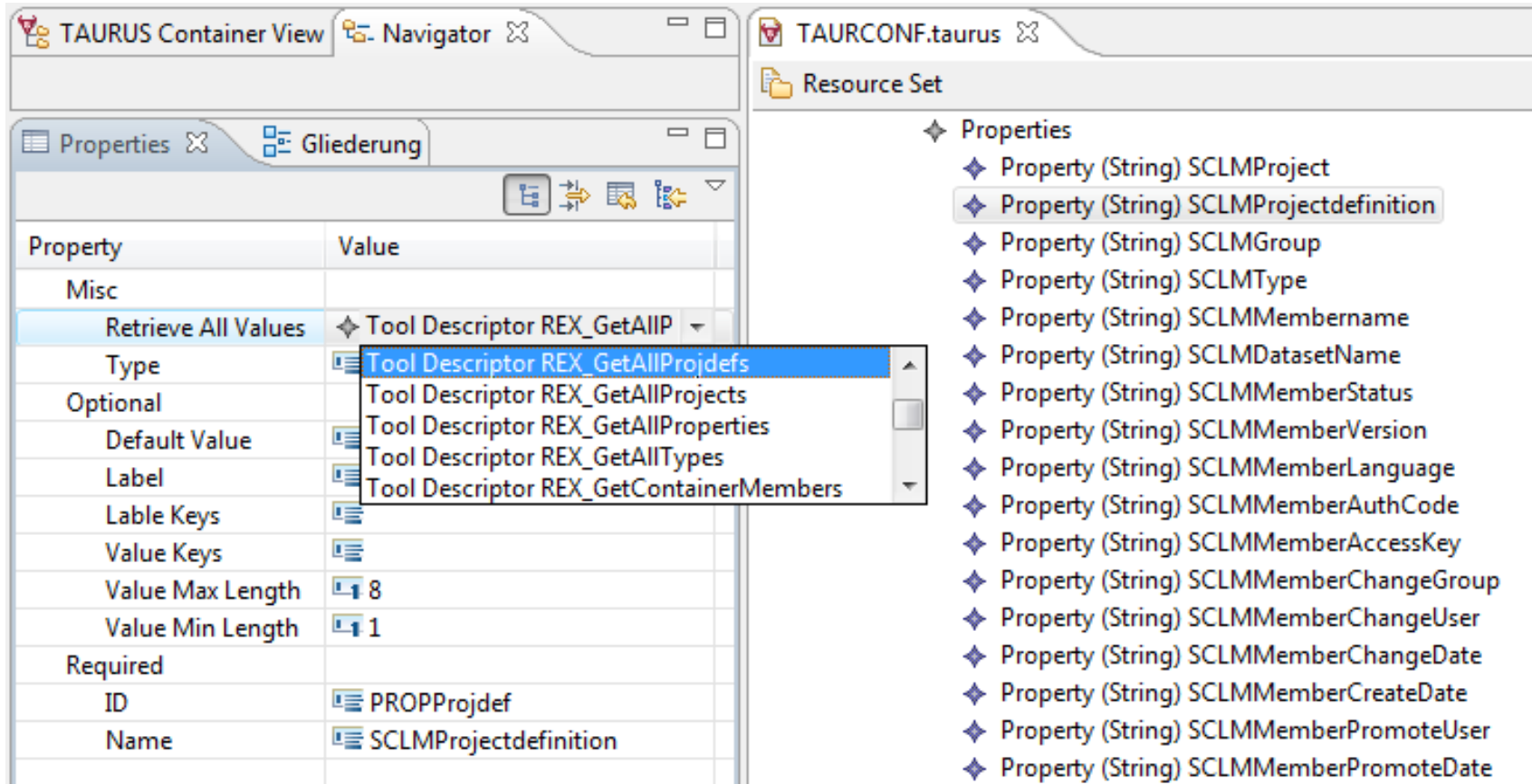
Property	Value
1 SCLM Accounting Info	
001 Project	SCLM
003 Group	DEV1
004 Type	SOURCE
005 Membername	TESTUP1
006 Physical Dataset	SCLM.DEV1.SOURC
007 Accounting Stat	EDITABLE
008 Member Versior	1
009 Language	COBE
010 Authorization C	P
011 Checked Out	SOFUP
012 Change Group	DEV1
013 Change Userid	SOFUP
014 Change Date Tir	10/09/17 15:29:33
015 Create Date Tim	09/12/18 11:37:10
016 Promote User	
017 Promote Date Ti	00/00/00 00:00:00
018 Predecessor Dat	00/00/00 00:00:00
019 Build Map Nam	
020 Build Map Type	
021 Build Map Date	10/09/17 14:51:37

TAURUS – Configuration Editor (1)

- Graphical editor for the TAURUS configuration file (XML)
 - Generated via EMF
 - Fully customizable
 - Easy to use



➤ Editing attributes in the Property View

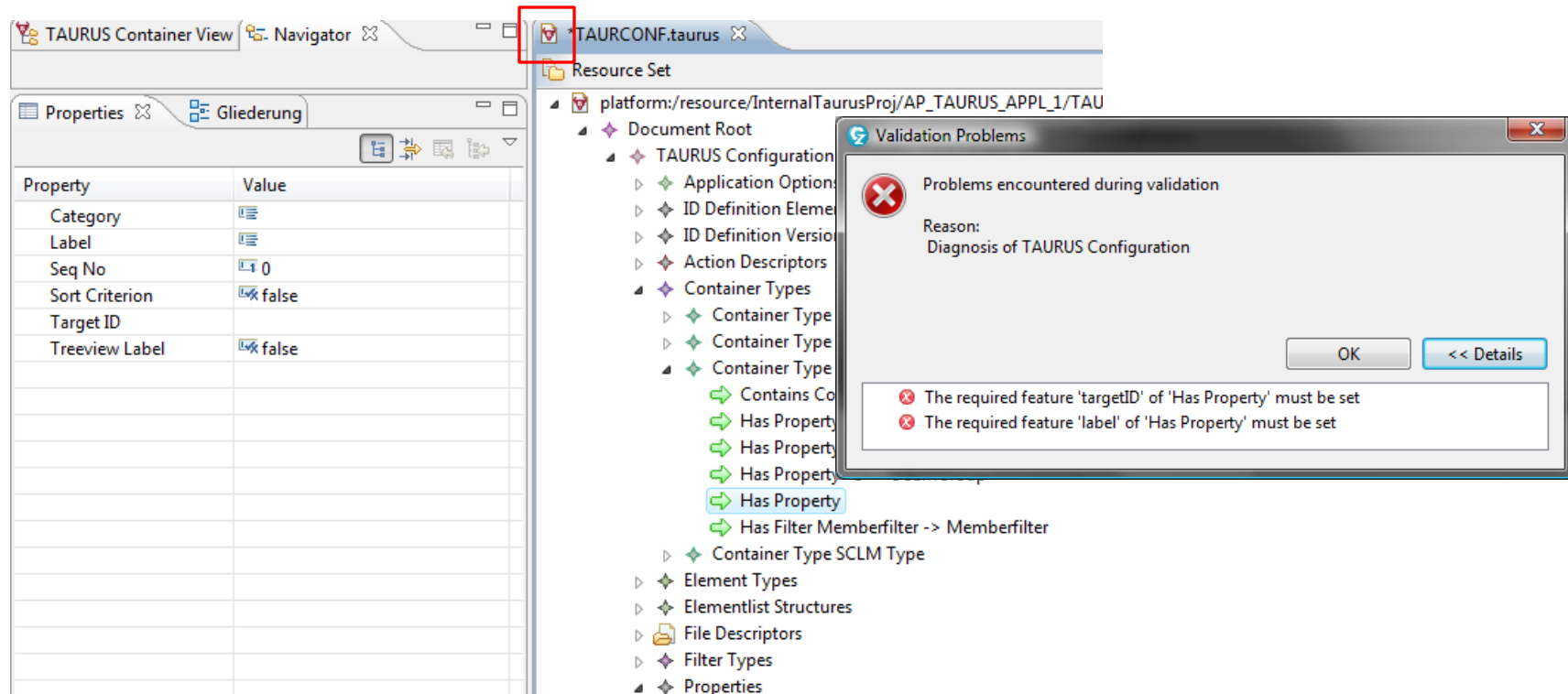


The screenshot displays the TAURUS Configuration Editor interface. The main window is titled "TAURUS Container View" and "Navigator". The "Properties" view is active, showing a table with columns "Property" and "Value". The "Retrieve All Values" property is selected, and a dropdown menu is open, listing several tool descriptors. The "TAURCONF.taurus" window is also visible, showing a "Resource Set" with a list of properties.

Property	Value
Misc	
Retrieve All Values	Tool Descriptor REX_GetAllIP
Type	Tool Descriptor REX_GetAllProjdefs
Optional	
Default Value	
Label	
Lable Keys	
Value Keys	
Value Max Length	8
Value Min Length	1
Required	
ID	PROPProjdef
Name	SCLMProjectdefinition

- Property (String) SCLMProject
- Property (String) SCLMProjectdefinition
- Property (String) SCLMGroup
- Property (String) SCLMType
- Property (String) SCLMMembername
- Property (String) SCLMDatasetName
- Property (String) SCLMMemberStatus
- Property (String) SCLMMemberVersion
- Property (String) SCLMMemberLanguage
- Property (String) SCLMMemberAuthCode
- Property (String) SCLMMemberAccessKey
- Property (String) SCLMMemberChangeGroup
- Property (String) SCLMMemberChangeUser
- Property (String) SCLMMemberChangeDate
- Property (String) SCLMMemberCreateDate
- Property (String) SCLMMemberPromoteUser
- Property (String) SCLMMemberPromoteDate

➤ Syntax Validation



The screenshot displays the TAURUS Configuration Editor interface. On the left, the 'Properties' view shows a table with the following data:

Property	Value
Category	
Label	
Seq No	0
Sort Criterion	false
Target ID	
Treeview Label	false

The main editor area shows a tree view of the configuration structure. A red box highlights the 'TAURCONF.taurus' tab. A 'Validation Problems' dialog box is open, displaying the following error messages:

Problems encountered during validation
Reason:
Diagnosis of TAURUS Configuration

- ✘ The required feature 'targetID' of 'Has Property' must be set
- ✘ The required feature 'label' of 'Has Property' must be set

The dialog box includes 'OK' and '<< Details' buttons.

➤ In addition the editor supports:

- Undo
- Restoring default values
- Copy, Paste, Drag & Drop of type definitions

Evaluation

	Effort	Flexibility	Techn. Skills	Education
Menu Manager	low	low	low	low
Plug-in development	very high	very high	high	very high
HATS RCP	medium	medium	medium	medium
CARMA with standard client	medium	medium	medium	medium
CARMA with plug-in development	high	high	high	very high
TAURUS	low	very high	medium	low

Summary of the TAURUS Features (1)

	TAURUS
Configuration	XML (EMF graphical Editor) with syntax validation
Communication	RDz/RSE with ISPF Client Gateway
Host Tool Integration	REXX (recommendation)
Client Tool Integration	Plug-Ins configurable, Extension points
Container tree structure	Configurable with actions and property view
Table structures	Configurable with actions and property view
Filter types	Configurable with actions and property view
Local syntax check with error feedback	Supported with configurable property group mapping
Language editor (LPEX, ...)	Supported with configurable file suffix mapping

Summary of the TAURUS Features (2)

	TAURUS
Remote Error Feedback	Supported with configurable error feedback view
Complex actions (1 to n tools)	supported
Action menus	supported
Dependent element lists	supported
SCLM integration	TAURUS for SCLM (optional add-on)
Endevor integration	TAURUS for Endevor (optional add-on)
ChangeMan integration	TAURUS for ChangeMan (optional add-on)

Thank
YOU