



TD/OMS V6 New and Noteworthy

➤ Hans Beverwijk





Introduction

➤ Hans Beverwijk – Customer Services

➤ Activities

- Implementation
- Training
- Upgrade
- Support

➤ Areas

- Software Change Management: TD/OMS
- Software Testing: Original Software Suite
 - TestBench
 - TestDrive
 - TestDrive-Assist

➤ Contact

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Agenda

- Attention points TD/OMS V6.4
 - Required IBM i OS version
 - License keys
- New and Noteworthy V6
 - Communication
 - Deployment
 - Development



IBM i OS 5.4 Required

➤ Issue

- Some of the requested TD/OMS functionality can only be offered on IBM i OS 5.4 and higher

➤ Change

- Upgrade to TD/OMS V6.4 saved for IBM i OS 5.4



IBM i OS 5.4 Required

➤ Impact

- Upgrade to TD/OMS V6 can only be done after upgrading to IBM i OS 5.4 or higher
 - IBM supports IBM i OS 5.4 until September 2013 (extended support until September 2016)
 - IBM i OS 5.4 requires PTF MF40520 or MF42655 to restore objects saved on IBM i OS 6.1
 - Detailed information on the Remain Wiki



TD/OMS License Code

➤ Issue

- Requirement to introduce a more granular licensing structure to stay in line with the changing machine capabilities and IBM licensing structure

➤ Change

- The processor feature code of the machine is included in the TD/OMS license algorithm



TD/OMS License Code

➤ Impact

- A new license key is NOT required when upgrading to TD/OMS V6
- A new license key is required when a hardware upgrade changes the processor feature code
- Additional information must be supplied when requesting a TD/OMS license transfer
 - TD/OMS version
 - Processor Feature code



TD/OMS License Code

➤ License transfer form on the Remain extranet



REMAIN Software Change Management Solutions

🏠 SOFTWARE CHANGE MANAGEMENT TEST MANAGEMENT PARTNERS CONTACT EXTRANET ABOUT



License Transfer Requests

- ▶ [Documentation](#)
- ▶ [Software Downloads](#)
 - [Release Notes](#)
 - [Server](#)
 - [Client](#)
 - [Documentation](#)
 - [Graphics](#)
 - [License Transfer Requests](#)
 - [Manuals](#)
 - [Presentations](#)
 - [Training](#)

License transfer request forms

-  [Request form TEMPORARY license transfer](#)
-  [Request form license transfer](#)

Licentie overdracht formulier

-  [Aanvraagformulier licentie overdracht](#)
-  [Aanvraagformulier TIJDELIJKE licentie overdracht](#)



TD/OMS License Code

- No account for the Remain extranet yet ?
- Select Register to request access

The screenshot shows the Remain website with a dark header. The header includes the 'REMAIN' logo, the tagline 'Software Change Management Solutions', and a 'LOGIN / REGISTER' link. Below the header is a navigation bar with links for 'SOFTWARE CHANGE MANAGEMENT', 'TEST MANAGEMENT', 'PARTNERS', 'CONTACT', and 'ABOUT'. A search bar is also present. The main content area features a large banner for 'launching GRAVITY MULTI-PLATFORM SCM' with a wireframe graphic. To the right of the banner is a section titled 'Remain is a specialist in software lifecycle support' with a brief description of the company and two links: 'More on Remain' and 'See our Solutions'. At the bottom of the page are social media links for Twitter, Newsletter, and LinkedIn.

➤ Connected Development



New and Noteworthy V6

- Communication
 - TD/OMS TCP Server
 - TD/OMS Services
 - TD/OMS Dispatcher Service
 - ZIP Service
 - GUI Dialog Service



TD/OMS TCP Server

➤ Functionality

- TCP/IP file queueing communication software that enables TD/OMS to distribute components via TCP/IP (as opposed to distribution via SNA)



TD/OMS TCP Server

➤ Issues

- No fully automated installation for standard setup
- Insufficient support for non standard setup:
 - Different port number, owner, etc
 - Multiple installations on same machine/LPAR

➤ Change

- Introduced flexible location for server information to support non standard setup.
- Automated installation in case of standard setup



TD/OMS TCP Server

➤ Impact

- Less time required by Remain and its partners to implement standard and non standard configurations



New and Noteworthy V6

- Communication
 - TD/OMS TCP Server
 - **TD/OMS Services**
 - TD/OMS Dispatcher Service
 - ZIP Service
 - GUI Dialog Service



TD/OMS Services

➤ Functionality

- Common/standardized way of managing the fast growing number of TD/OMS JAVA functions



TD/OMS Services

➤ Issues

- Difficult to manage the growing amount of functions
- Lack of support for stopping/starting a individual function

➤ Change

- Existing functions implemented as services:
 - TCP Server Queue Manager
 - TCP Server Transfer Server
 - Remote Job Monitor
 - Relations Monitor



TD/OMS Services

➤ Impact

- Less time required by Remain to introduce new JAVA functions
- Support for Start/Stop of a individual Service via command or menu



TD/OMS Services

Start TD/OMS Service (STROMSSRV)

Type choices, press Enter.

```
Service . . . . . > *REMOTEJOBMON
Enable Dispatcher Console . . . *NO      *YES, *NO
```

Bottom

F3=Exit F4=Prompt F5=Refresh F12=Cancel F13=How to use this display
F24=More keys

F3=EXIT F4=PROMPT F5=REFRESH F12=CANCEL F13=HOW TO USE THIS DISPLAY F24=MORE KEYS

Bottom



New and Noteworthy V6

- Communication
 - TD/OMS TCP Server
 - TD/OMS Services
 - **TD/OMS Dispatcher Service**
 - ZIP Service
 - GUI Dialog Service



TD/OMS Dispatcher Service

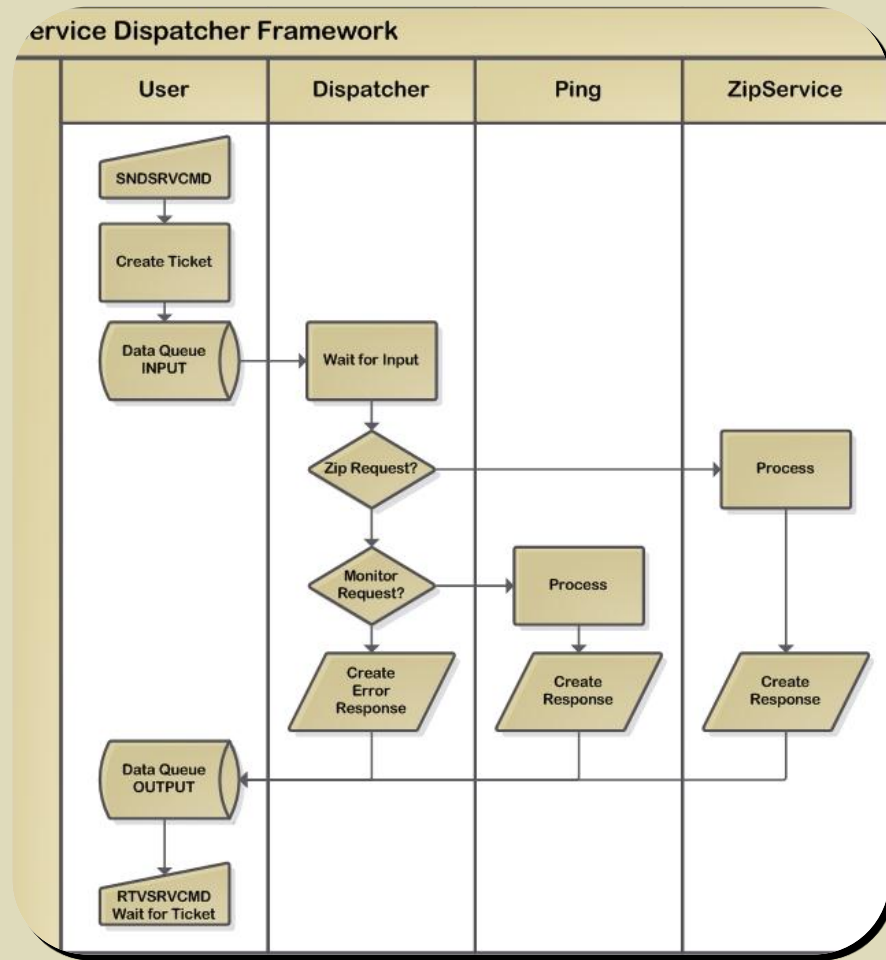
➤ Functionality

- Common way of using services, monitoring for a response of the services and communicating about the services



TD/OMS Dispatcher Service

➤ Functionality





TD/OMS Dispatcher Service

- Issues
 - Lack of support for a standardised solution
- Change
 - Service functionality implemented
- Impact
 - Simplified method to enhance TD/OMS



New and Noteworthy V6

- Communication
 - TD/OMS TCP Server
 - TD/OMS Services
 - TD/OMS Dispatcher Service
 - **ZIP Service**
 - GUI Dialog Service



ZIP Service

➤ Functionality

- Saves a IFS folder structure into the specified ZIP file



ZIP Service

- Issue
 - Lack of a efficient way of distributing multiple objects to non IBM i locations
- Change
 - ZIP Service functionality implemented



ZIP Service

➤ Impact

- This function is not only available for TD/OMS distributions but can also be used by users for other purposes



ZIP Service

Create a Zip File (CRTZIPF)

Type choices, press Enter.

Directory to zip

Zip file

F3=Exit F4=Prompt F5=Refresh F12=Cancel F13=How to use this display **Bottom**
F24=More keys



New and Noteworthy V6

- Communication
 - TD/OMS TCP Server
 - TD/OMS Services
 - TD/OMS Dispatcher Service
 - ZIP Service
 - GUI Dialog Service



GUI Dialog Service

➤ Functionality

- Enable a TD/OMS server process to request for user intervention from a TD/OMS client



GUI Dialog Service

➤ Issue

- Some TD/OMS customers have implemented a dialog in the pre-processing part of the transfer in the green screen and were unable to switch to the TD/OMS client as this functionality was not available

➤ Change

- GUI Dialog Service functionality implemented



GUI Dialog Service

➤ Impact

- Involved customers can now use the TD/OMS client (after implementing the GUI Dialog Service and modification of the user programs)
- All other users can start using this functionality



GUI Dialog Service

- Requires Dispatcher service to be active
- SNDGUIDOMS to construct dialog
 - Text
 - Label
 - Button
 - Dropdown
- RTVGUIDOMS to receive return value
- Example in QUSRSRC



GUI Dialog Service

➤ Example 1 → Pre-processing exception

```
OMS - Send GUI Dialog (SNDGUIDOMS)

Type choices, press Enter.

Label . . . . .
IP . . . . . > *REQUESTER
Panel header . . . . . > 'Transfer target release check'
-----
Error indicator . . . . . > *YES          *YES, *NO
Closable indicator . . . . . > *YES          *YES, *NO
Message . . . . . > 'Target release must be V5R4M0'
-----
-----
-----

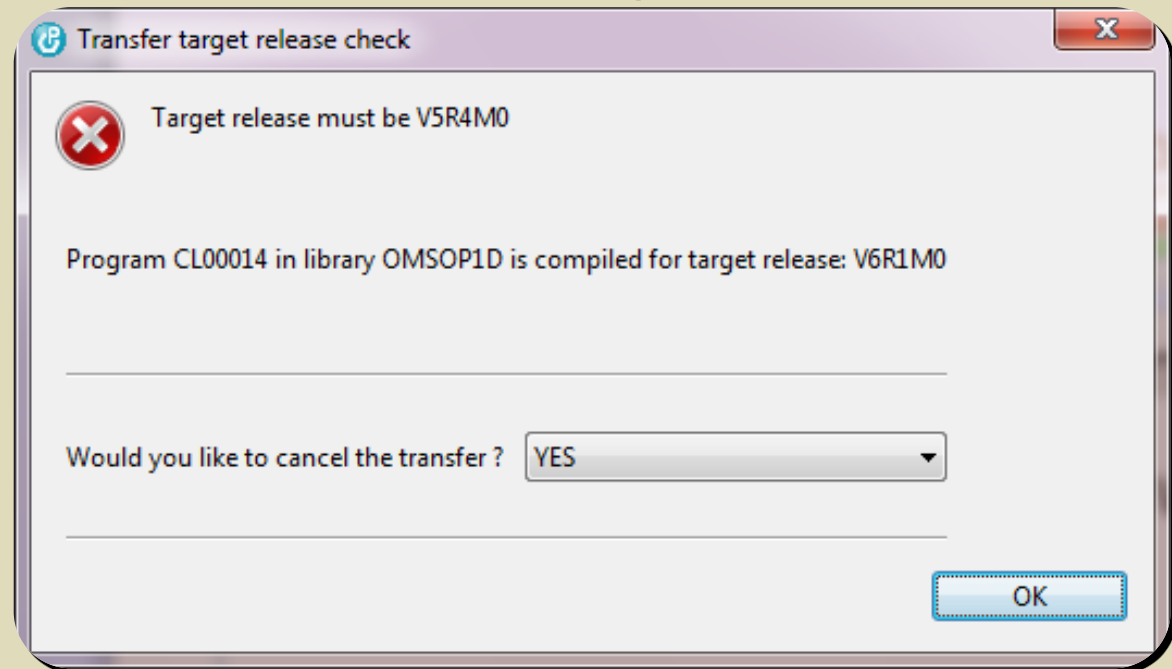
F3=Exit   F4=Prompt   F5=Refresh   F12=Cancel   F13=How to use this display
F24=More keys
```

More...



GUI Dialog Service

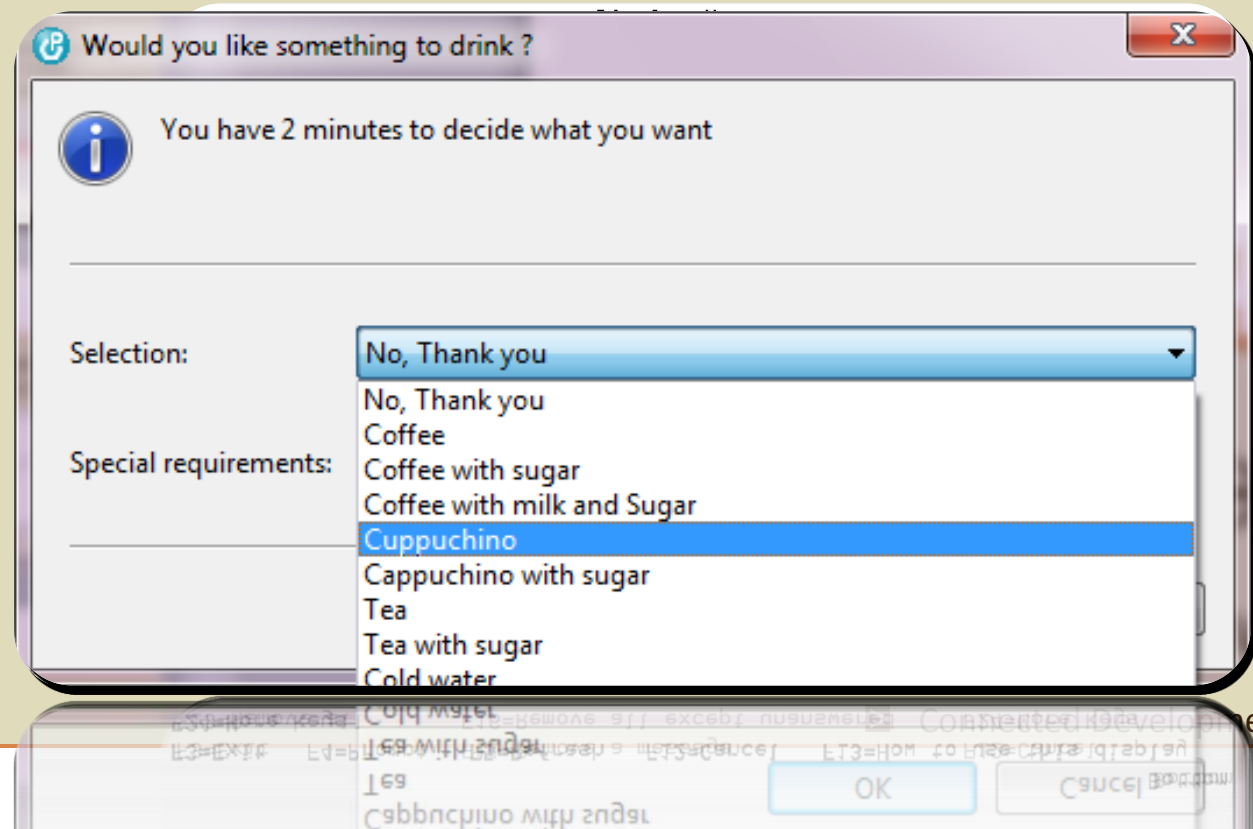
- Example 1 → Pre-processing exception
- User must take action when target release exceeds V5R4M0





GUI Dialog Service

- Example 2 → Command from command line
- Ask if user wants a drink





New and Noteworthy V6

- Deployment
 - Install WAS Application
 - Non IBM i Distribution
 - Distribution Registration



Install WAS Application

➤ Functionality

- A one step approach to perform the required activities to implement a WAR file into a Websphere Application Server



Install WAS Application

➤ Issue

- Implementing a WAR file requires (several) manual steps and thus human intervention
- TD/OMS can not handle the entire process of implementing a change into a Websphere Application Server

➤ Change

- Introduced the INSWAPPOMS command



Install WAS Application

➤ Impact

- Entire process can now be automated by executing the INSWAPPOMS command at a user exit point during the transfer
- No human intervention required during/after TD/OMS transfer



Install WAS Application

> Documentation on the Remain Wiki

Install WAS Application (INSWAPPOMS)

Type choices, press Enter.

Application Directory		
File		
Profile Home		
WAS Installation		
Uninstall existing	<u>*YES</u>	*YES, *NO
Application name	<u>*GEN</u>	
Stop Application	<u>*YES</u>	*YES, *NO
Start application	<u>*YES</u>	*YES, *NO
Fail on Error	<u>*YES</u>	*YES, *NO
Connection Type	<u>*SOAP</u>	
Port	<u>8880</u>	*DFT, port

More...

F3=Exit F4=Prompt F5=Refresh F12=Cancel F13=How to use this display
F24=More keys



New and Noteworthy V6

- Deployment
 - Install WAS Application
 - **Non IBM i Distribution**
 - Distribution Registration



Non IBM i Distribution

➤ Functionality

- Distribution to a non IBM i by means of the
Remain file queuing communication software



Non IBM i Distribution

➤ Issue

- Remote Job Monitor messages were not returned
- Only one script containing all the logic
- No fall-back support
- No default scripts supplied

➤ Change

- Several enhancements to the Remain communication software



Non IBM i Distribution

➤ Impact

- Sending system is aware of transfer status for IBM i and non IBM i systems so user only has to check in 1 location
- Reduced implementation time due to example scripts



Non IBM i Distribution

➤ Define Remote Location

➤ Select correct platform (WIN/UNIX)

OMD00103 Remote Location Maintenance
Maintain Remote Location

ADD

Address	<u>HANSPC</u>	
Address description . . .	<u>Distribution to windows</u>	
Type	<u>WIN</u>	OS400, WIN, UNIX, ..
Device	<u>*TCP</u>	*SNADS, *TCP, device-code

Distribute definition . .	<u>1</u>	0=No, 1=Yes, 2=When changed
Distribute exceptions . .	<u>0</u>	0=No, 1=Yes, 2=When changed
Process source	<u>0</u>	0=No, 1=Yes
Monitor remote jobs . . .	<u>1</u>	0=No, 1=Yes
Distribution registration	<u>0</u>	0=No, 1=Yes

Bottom

F3=Exit F5=Refresh F12=Cancel



Non IBM i Distribution

> Environment Maintenance

JMA002 Environment Maintenance
OMA00203 Work with Library Lists

Application code: OMS01 TD/OMS training student 1
Environment code: PRD Production

Position to: 0

2=Change 3=Copy 4=Delete 6=Print **8=Distribution lists**...

Seq.#	Description	D	Lvl	Sav	Rst	Typ
<u>10</u>	Local	0	4	2	1	0
<u>8</u>	20 To Windows PC	0	4	1	1	2

Bottom

F3=Exit F4=Prompt Copy F5=Refresh F6=Add F12=Cancel F23=More options

F3=EXIT F4=Prompt Copy F5=Refresh F6=Add F12=Cancel F23=More options

Connected Development



Non IBM i Distribution

> Environment Maintenance

> Add Remote Location

```
OMA002                      Environment Maintenance
OMA00208                    Maintain Distribution Entry

CHANGE
Application code .....: OMS01 TD/OMS training student 1
Environment code .....: PRD   Production
Library list description: To Windows PC

From Environment code ...: *ANY
Address .....: HANSPC           Distribution to windows

Distribute objects .....: 1           0=No, 1=Yes
Distribute sources .....: * (0)       0=No, 1=Yes, **=Default
Distribute definition ...: * (1)       0=No, 1=Yes, 2=When changed, **=Default
Distribute exceptions ...: * (0)       0=No, 1=Yes, 2=When changed, **=Default
Monitor remote jobs ....: * (1)       0=No, 1=Yes, **=Default

Normal job description ..: * _____ ()           **=Default
Library .....: _____ ()
Fast job description ...: * _____ ()           **=Default
Library .....: _____ ()

F3=Exit F5=Refresh F14=Retrieve Defaults F12=Cancel
Values taken from the system address definition, application address created
```

Values taken from the system address definition, application address created

```
Normal job description ..: * _____ ()           **=Default
Fast job description ...: * _____ ()           **=Default
```



Non IBM i Distribution

- TD/OMS communication software must be running on receiving system
 - After performing the standard activities the software will execute a application specific or a general user script
 - Several user script templates are included
 - Components to directory
 - Tomcat app install
 - WAS app install
 - User scripts can be enhanced (or created from scratch) to meet specific requirements



Non IBM i Distribution

➤ Remote job monitor shows progress

TD/OMS Remote Job Monitor

Application Regex: DEMO Address Regex: HANSPC Transfer:

Transfer	User	Address	Send Date	Send Time	Received Date	Received Time	Status	Start Date	Start Time	End Date	End Time
Ended (25)											
OR024425		HANSPC	4-apr-2012	15:40:22	4-apr-2012	15:40:32	*NORM	4-apr-2012	15:40:32	4-apr-2012	15:40:40
OR024378		HANSPC	28-mrt-2012	14:02:47	28-mrt-2012	14:03:00	*NORM	28-mrt-2012	14:03:00	28-mrt-2012	14:03:07
OR024366		HANSPC	27-mrt-2012	10:15:52	27-mrt-2012	10:15:57	*TERM	27-mrt-2012	10:15:57	27-mrt-2012	10:16:03
OR024365		HANSPC	27-mrt-2012	10:07:45	27-mrt-2012	10:07:54	*TERM	27-mrt-2012	10:07:54	27-mrt-2012	10:08:00
OR024363		HANSPC	27-mrt-2012	9:53:04	27-mrt-2012	9:53:09	*TERM	27-mrt-2012	9:53:09	27-mrt-2012	9:53:15
OR024362		HANSPC	27-mrt-2012	9:51:49	27-mrt-2012	9:51:57	*TERM	27-mrt-2012	9:51:57	27-mrt-2012	9:52:04
OR024358		HANSPC	21-mrt-2012	11:43:19	21-mrt-2012	11:43:26	*NORM	21-mrt-2012	11:43:26	21-mrt-2012	11:43:34
OR024343		HANSPC	20-mrt-2012	9:47:08	20-mrt-2012	9:47:14	*NORM	20-mrt-2012	9:47:14	20-mrt-2012	9:47:22
OR024298		HANSPC	7-mrt-2012	13:04:39	7-mrt-2012	13:04:43	*NORM	7-mrt-2012	13:04:43	7-mrt-2012	13:04:51
OR024297		HANSPC	7-mrt-2012	13:03:47	7-mrt-2012	13:03:51	*NORM	7-mrt-2012	13:03:51	7-mrt-2012	13:03:59
OR024296		HANSPC	7-mrt-2012	13:00:16	7-mrt-2012	13:00:17	*NORM	7-mrt-2012	13:00:17	7-mrt-2012	13:00:25
OR024286		HANSPC	5-mrt-2012	11:42:03	6-mrt-2012	7:21:23	*TERM	6-mrt-2012	7:21:23	6-mrt-2012	7:21:29
OR023632		HANSPC	30-nov-2011	6:26:42	30-nov-2011	6:26:00	*NORM	30-nov-2011	6:26:00	30-nov-2011	6:26:00
OR023621		HANSPC	29-nov-2011	15:20:47	29-nov-2011	15:21:00	*NORM	29-nov-2011	15:21:00	29-nov-2011	15:21:00
OR023617		HANSPC	29-nov-2011	15:16:55	29-nov-2011	15:16:00	*NORM	29-nov-2011	15:16:00	29-nov-2011	15:16:00



New and Noteworthy V6

- Deployment
 - Install WAS Application
 - Non IBM i Distribution
 - **Distribution Registration**



Distribution Registration

➤ Functionality

- De-centralised control with respect to the time and sequence in which received transfers are processed on the receiving system



Distribution Registration

➤ Issue

- It is impossible to determine on the receiving system if processing transfers in non sequential order will cause problems

➤ Change

- The Distribution Registration mechanism will ensure the correct processing sequence based on calculated and manual dependencies



Distribution Registration

➤ Impact

- Transfers can be processed in non sequential order
- ALL transfers of this type require manual intervention



Distribution Registration

➤ Remote Location Maintenance

➤ One simple flag

OMD00103

Remote Location Maintenance
Maintain Remote Location

CHANGE

Distribute definition . .	1	0=No, 1=Yes, 2=When changed
Distribute exceptions . .	1	0=No, 1=Yes, 2=When changed
Process source	1	0=No, 1=Yes
Monitor remote jobs . . .	0	0=No, 1=Yes
Distribution registration	1	0=No, 1=Yes

Bottom

F3=Exit F5=Refresh F12=Cancel



Distribution Registration

➤ Request /Fix Maintenance

OM0004
OM000401-1

Fix Maintenance
Work with Fixes

Application code: EXMP general Example APPC
Position to: _____

20=Work with Transfer History **21=Define Registered Distribution ...**

Fix	Description	Status	St-Date	Programmer
EDR0018	Distribution Registration fix 11	*UAP	14-05-12	VINCENT
EDR0017	Distribution Registration fix.10	*UAP	9-05-12	VINCENT
EDR0016	Distribution Registration fix.07	*LOCK	9-05-12	VINCENT
EDR0015	Distribution Registration fix.06	*LOCK	9-05-12	VINCENT
21 EDR0014	Distribution Registration fix.05	*UAP	9-05-12	VINCENT
EDR0013	Distribution Registration fix.04	*LOCK	9-05-12	VINCENT
EDR0012	Distribution Registration fix.03	*LOCK	9-05-12	VINCENT
EDR0011	Distribution Registration fix.02	*LOCK	9-05-12	VINCENT
EDR0010	Distribution Registration fix.01	*LOCK	9-05-12	VINCENT
CRF0061	TEST tfrobjoms empty fix	*NEW	22-10-08	VINCENT

Bottom

F5=Refresh F12=Cancel F17=Subset **F21=Distribution registr.** F24=More Keys



Distribution Registration

- Maintain Distribution Registration
- Option 12 to Work with Dependencies

OMD020
OMD02001

Distribution Management
Maintain Distribution Registration

Sel _____ Start date

4=Delete 5=display 12=Work with Dependencies

	Distrib.	Ip	Appl	Req/Rls	Stat	User	Sent	DA	Str.dt	Lst.prcs
—	21	A	EXMP	EDR0014	*ACT	VINCENT	Y	1	15-05-12	15-05-12
—	22	A	EXMP	EDR0017	*ACT	VINCENT	Y	1	15-05-12	15-05-12
—	23	A	EXMP	EDR0015	*ACT	VINCENT	Y	1	16-05-12	16-05-12
12	24	M	EXMP	EDR0018	*CRT	VINCENT		0	16-05-12	0-00-00

Bottom

F3=Exit F5=Refresh F12=Cancel



Distribution Registration

➤ Distribution Dependencies

➤ Add Manual Dependencies

OMD021
OMD02101

Maintain Distribution Registration
Work with Distribution Dependencies

CHANGE

Application EXMP general Example APPC
Distribution 24 EDR0018 M *CRT 16-05-12
 Distribution Registration fix 11

1=Add 4=Remove

1	Dep.Distrib	Tp.	Appl	Req/Rls	Stat	Str.dt	D-Tp.	D-Sts
1	1	EDR						

— (No Dependency specified)

F3=Exit F5=Refresh F12=Cancel

Connected Development

Bottom



Distribution Registration

➤ Distribution Dependencies

➤ Type/status identify Dependencies:

- Manual
- Version

OMD021
OMD02101

Maintain Distribution Registration
Work with Distribution Dependencies

CHANGE

Application EXMP general Example APPC
Distribution 23 EDR0015 A *ACT 16-05-12
Distribution Registration fix.06

1=Add 4=Remove

Dep.Distrib	22	TP.	Appl	Req/RLs	Stat	Str.dt	D-Tp.	D-Sts
---	---	A	EXMP	EDR0017	*ACT	15-05-12	V	*CALC

Bottom

F3=Exit F5=Refresh F12=Cancel



Distribution Registration

- Registered Distributions on receiving
- Distributions are waiting to be processed

```
Work with Libraries Using PDM

List type . . . . . *ALL      Position to . . . . .

Type options, press Enter.
  2=Change      3=Copy      4=Delete      5=Display
  7=Rename      8=Display description  9=Save      10=Restore ...

Opt  Library      Type      ASP      Device      Text
---  ---          ---      ---      ---      ---
---  DR002234      *PROD      ---      ---      OMS Registered Distrib.lib. temporar
---  DR002235      *PROD      ---      ---      OMS Registered Distrib.lib. temporar
---  DR002237      *PROD      ---      ---      OMS Registered Distrib.lib. temporar
---  DR002240      *PROD      ---      ---      OMS Registered Distrib.lib. temporar
---  DR002241      *PROD      ---      ---      OMS Registered Distrib.lib. temporar
---  DR002242      *PROD      ---      ---      OMS Registered Distrib.lib. temporar

Parameters or command
===>

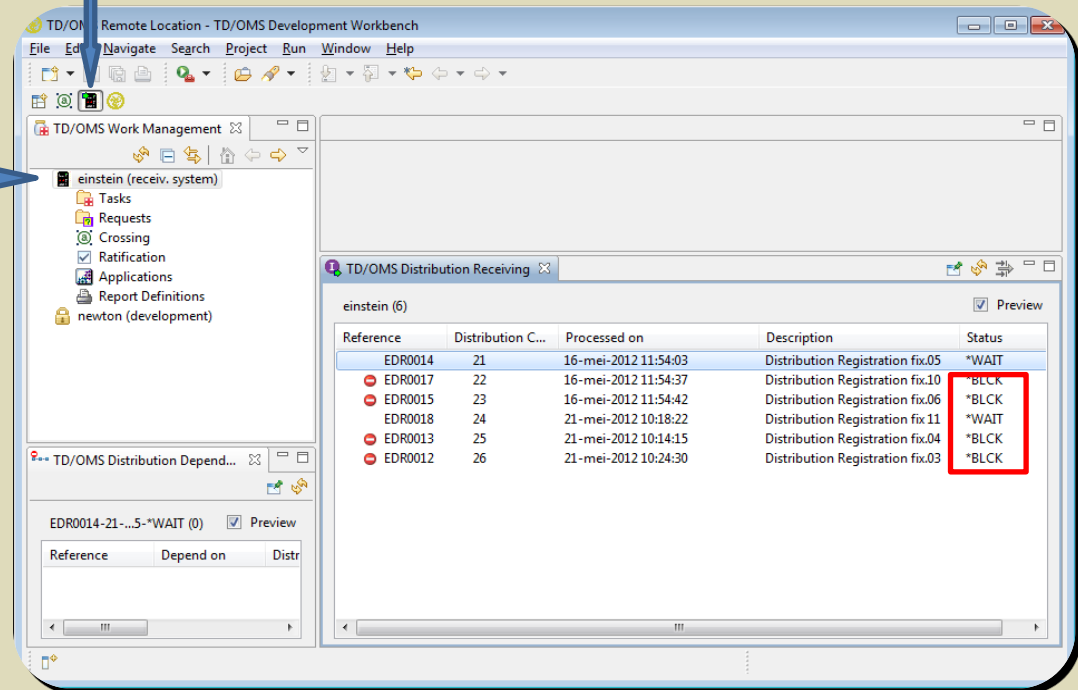
F3=Exit      F4=Prompt      F5=Refresh      F6=Create
F9=Retrieve   F10=Command entry  F23=More options  F24=More keys

Bottom
```



Distribution Registration

- Installation through TD/OVS client
 - TD/OVS Remote Location perspective
 - Connect with TD/OVS receiving installation
- Status
 - Blocked
 - Waiting
 - Completed



➤ Connected Development



Distribution Registration

➤ Selection shows dependencies

The screenshot displays the TD/OMS Development Workbench interface. On the left, the 'TD/OMS Work Management' tree shows a project named 'einstein (receiv. system)' with sub-items: Tasks, Requests, Crossing, Ratification, Applications, Report Definitions, and newton (development). The main window is titled 'TD/OMS Distribution Receiving' and shows a table of distribution registration data for 'einstein (6)'. A table at the bottom, 'TD/OMS Distribution Dependency Analysis', shows dependencies for 'EDR0017-22-Distribution Registration fix.10-*BLCK (2)'. A large orange arrow points from the 'EDR0017' row in the main table to the dependency table.

Reference	Distribution ...	Processed on	Description	Status
EDR0014	21	16-mei-2012 11:54:03	Distribution Registration fix.05	*WAIT
EDR0017	22	16-mei-2012 11:54:37	Distribution Registration fix.10	*BLCK
EDR0015	23	16-mei-2012 11:54:42	Distribution Registration fix.06	*BLCK
EDR0018	24	21-mei-2012 10:18:22	Distribution Registration fix.11	*WAIT
EDR0013	25	21-mei-2012 10:14:15	Distribution Registration fix.04	*BLCK
EDR0012	26	21-mei-2012 10:24:30	Distribution Registration fix.03	*BLCK

Reference	Depend on	Distribution Type	Processed on
EDR0015	23	V	16-mei-2012 11:40:...
EDR0018	24	U	16-mei-2012 14:13:...



Distribution Registration

► Installation wizard for dependent distributions

The screenshot shows the TD/OMS Development Workbench interface. The main window is titled "TD/OMS Remote Location - TD/OMS Development Workbench". It has a menu bar with File, Edit, Navigate, Search, Project, Run, Window, and Help. Below the menu bar is a toolbar with various icons. The left pane shows a tree view of the project structure under "einstein (receiv. system)", including Tasks, Requests, Crossing, Ratification, Applications, Report Definitions, and newton (development). The right pane is titled "TD/OMS Distribution Receiving" and contains a table of distribution records. A context menu is open over the table, showing options: New, Show Registered Fixes, Show Dependency Analysis, Install, SystemReports, UserReports, and Run User Option. The table has columns: Reference, Distribution ..., Processed on, Description, and Status. The table contains 6 records, with the first two highlighted in blue.

Reference	Distribution ...	Processed on	Description	Status
EDR0014	21	16-mei-2012 11:54:03	Distribution Registration fix.05	*WAIT
EDR0017	22	16-mei-2012 11:54:37	Distribution Registration fix.10	*BLCK
EDR0015	23		ation fix.06	*BLCK
EDR0018	24		ation fix.11	*WAIT
EDR0013	25		ation fix.04	*BLCK
EDR0012	26		ation fix.03	*BLCK

The context menu is open over the second record (EDR0017). The menu options are: New, Show Registered Fixes, Show Dependency Analysis, Install, SystemReports, UserReports, and Run User Option. The "Install" option is highlighted.



Distribution Registration

➤ Installation has impact on other distributions

TD/OMS Remote Location - TD/OMS Development Workbench

File Edit Navigate Search Project Run Window Help

TD/OMS Work Management

- einstein (receiv. system)
 - Tasks
 - Requests
 - Crossing
 - Ratification
 - Applications
 - Report Definitions
- newton (development)

TD/OMS Distribution Receiving

einstein (6) Preview

Reference	Distribution...	Status	Processed on	Description
EDR0014	21	*CMP	21-mei-2012 15:16:05	Distribution Registration fix.05
EDR0017	22	*BLCK	16-mei-2012 11:54:37	Distribution Registration fix.10
EDR0015	23	*WAIT	16-mei-2012 11:54:42	Distribution Registration fix.06
EDR0018	24	*CMP	21-mei-2012 15:39:29	Distribution Registration fix.11
EDR0013	25	*BLCK	21-mei-2012 10:14:15	Distribution Registration fix.04
EDR0012	26	*WAIT	21-mei-2012 10:24:30	Distribution Registration fix.03

EDR0015-23-Dist...ix.06-*WAIT (0) Preview

Reference	Depend on	Distributio...
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➤ Connected Development



New and Noteworthy V6

- Development
 - **Solution Type**
 - Request/Task Numbering
 - Source Compare
 - Keep Source Date
 - Procedure Relations
 - Graphical Impact Analysis
 - LANSa Source Archiving
 - CA 2E Interface



Solution Type

➤ Functionality

- Indicates what kind of processing has to be performed



Solution Type

➤ Issue

- Only 1 active solution is allowed for a specific component within a application. In some situations (eg recompilation) more active solutions are desired

➤ Change

- Introduction of a new solution type



Solution Type

➤ Impact

- Standard object creation is not performed when using the new solution type
- Changing to the new solution type is only allowed at start of cycle (production or development environment)



Solution Type

CL00014 [DEV - *LOCK - *PGM] - CL source

Solution Details

Id

Application code

Object code

Fix number

Member code

Route

IFS Path Extension

Object Information

IFS object code

IFS Directory code

Object type

Object attribute

Object library

Object class

Solution Information

Environment code

Solution type

Status

Source Processing

Override code

Version number

Modification number

Version number based on

Modification number based on

Source Revision Management Information

Solution Extended



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Request/Task Numbering

➤ Functionality

- Determination of the code when a Request or Task is added



Request/Task Numbering

➤ Issue

- No simple way to avoid that a Request or Task is generated in a application

➤ Change

- Enhanced the application definition to support the requested functionality



Request/Task Numbering

➤ Impact

- Preferred logic can be activated by making a simple change



Request/Task Numbering

➤ *NONE

➤ Task is created after entering unique code

JMS002 Application Definition
OMS00202 Maintain Application Definition

CHANGE

Application code: OMSRQ
Application description : TD/OMS request application

Request processor: OMSOP05

Check source location ...: 2 0=No 1=Yes 2=Check Date
Current Release: _____
4-GL Language: _____ F4=List
Default transfer path...: _____ Name, *RELEASE, F4=List

Last request number gen.: R0000001 Tmpl, *NONE, *PGM, *BLOCK
Last fix number gen.....: *NONE Tmpl, *NONE, *PGM, *BLOCK
Request number increment: 01
Fix number increment ...: 01

More...

F3=Exit F12=Cancel



Request/Task Numbering

> *PGM

- > Program will generate unique number (across applications)

JMS002 Application Definition
OMS00202 Maintain Application Definition

CHANGE

Application code: OMSRQ
Application description : ID/OMS request application

Request processor: OMSOP05

Check source location ...: 2 0=No 1=Yes 2=Check Date
Current Release: _____
4-GL Language: _____ F4=List
Default transfer path...: _____ Name, *RELEASE, F4=List

Last request number gen.: *PGM Tmpl, *NONE, *PGM, *BLOCK
Last fix number gen.....: *NONE Tmpl, *NONE, *PGM, *BLOCK
Request number increment: 01
Fix number increment ...: 01

More...

F3=Exit F12=Cancel



Request/Task Numbering

> *BLOCK

- > Disables adding (Simplifies phasing out an application)

Application Definition	
Maintain Application Definition	
Application code: <u>OMSRQ</u>	
Application description : <u>TD/OMS request application</u>	
Request processor: <u>OMSOP05</u>	
Check source location ...:	<u>2</u> 0=No 1=Yes 2=Check Date
Current Release:	_____
4-GL Language:	_____ F4=List
Default transfer path...:	_____ Name, *RELEASE, F4=List
Last request number gen.:	<u>R0000000</u> Tmpl, *NONE, *PGM, *BLOCK
Last fix number gen.....:	<u>*BLOCK</u> Tmpl, *NONE, *PGM, *BLOCK
Request number increment:	<u>01</u>
Fix number increment ...:	<u>01</u>
More...	
F3=Exit F12=Cancel	

E3=EXIT E12=CANCEL

> Connected Development

MOLE...



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Source Compare

➤ Functionality

- Show differences between (archived) versions of a source and enable composing a new source based on these versions



Source Compare

- Issue
 - No way to compare 3 versions
- Change
 - Enhanced the source compare to support the requested functionality



Source Compare

➤ Impact

- Complex comparisons can now be done without a lot of effort



Source Compare

➤ Compare with each other

CL0 F0000002 Emergency [OMS01 EMER] (1) ☒ Preview ☐ Procedures

Name	Sub Path	Location	Description	Type	Attribute	Environment
CL00011	OMSOP1P	OMSOP1P	CL source	*PGM	CLP	PRD
CL00012	OMSOP1P	OMSOP1P	CL source	*PGM	CLP	PRD
CL00014	OMSOP1D	OMSOP1D	CL source	*PGM	CLP	DEV
CL00014	OMSOP1EMG	OMSOP1EMG	CL source	*PGM	CLP	EMER
CL00014	OMSOP1P	OMSOP1P	CL source	*PGM	CLP	PRD
CL00015	OMSOP1P	OMSOP1P	CL source	*PGM	CLP	PRD
CL00016	OMSOP1P	OMSOP1P	CL source	*PGM	CLP	PRD
CL00017	OMSOP1P	OMSOP1P	CL source	*PGM	CLP	PRD
CL0001711	OMSOP1P	OMSOP1P	CL source	*PGM	CLP	PRD
CL0001722	OMSOP1P	OMSOP1P	CL source	*PGM	CLP	PRD

Context menu options:

- New
- Open F3
- View Source
- Show Impact Analysis
- Delete Object
- Show History
- Direct Connect
- Connect
- Connect with Rules
- Reload
- Fill Object File
- Refresh
- Compare With
 - Revision...
 - Each Other
- SystemReports
- UserReports
- Run User Option
- Show In Alt+Shift+W



New and Noteworthy V6

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Keep Source Date

➤ Functionality

- Ensure that source member dates in source file are unchanged during a transfer



Keep Source Date

➤ Issue

- The implemented solution in TD/OMS has negative impact on transfer time
- IBM has implemented some changes to ensure that this is standard behaviour

➤ Change

- Disabled the implemented solution in TD/OMS



Keep Source Date

➤ Impact

- Source date preserved as of IBM i OS 6.1
- For IBM i OS 5.4 install PTF SI25844
- For IBM i OS 5.3 install PTF SI25796
- See remain Wiki

(http://remainsoftware.com/wiki/index.php/DFG:Predefined_Registry_Settings)



New and Noteworthy V6

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Procedure Relations

➤ Functionality

- Maintenance of ILE procedure (and data) relations



Procedure Relations

- Issue
 - Required to know a object that contains the procedure to be able to looks at the relations
- Change
 - Separate entry point to look at the relations



Procedure Relations

➤ Impact

- Less knowledge and time required to obtain the desired information



Procedure relations

➤ Separate function (STRPM)

Object Maintenance
Work with Object Relations

OMA00411

Procedure : MODOBJ1

MOD*

1=Connect 4=Delete 5=Display Relations 6=Print relations ...

	Object	Location	Type	Detail	Env.	Appc.	Type
12.	MODOBJ1	OMSOP1P	*MODULE		PRD	OMS01	*PROC
—	MODSRVPGM	OMSOP1P	*SRVPGM		PRD	OMS01	*PROC

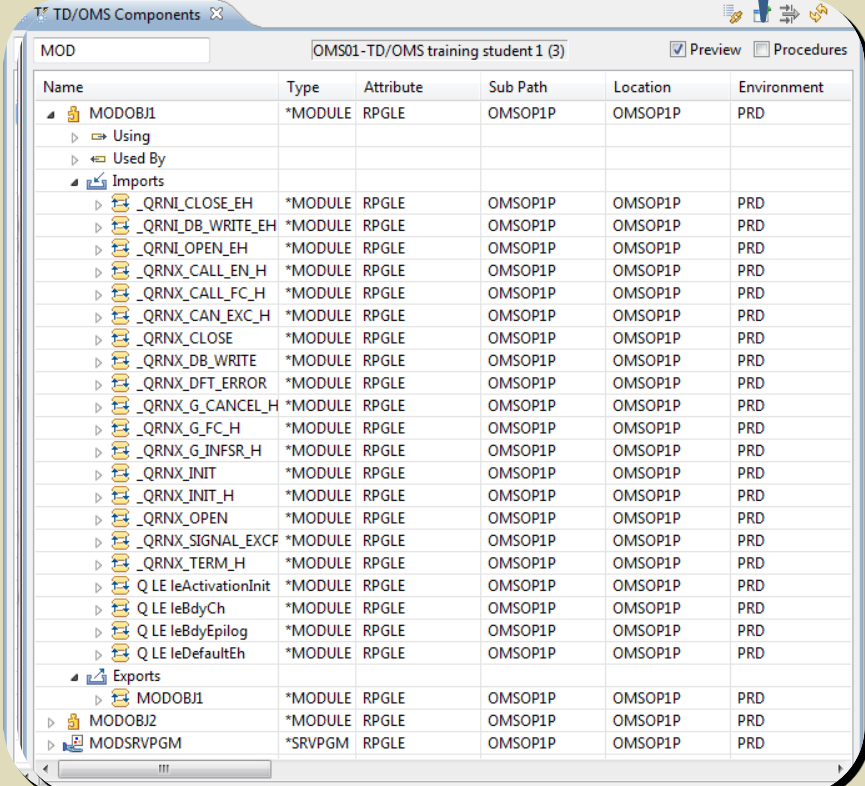
Bottom

F3=Exit F5=Refresh F6=Add F10=Names F11=View 2 F24=More keys



Procedure Relations

➤ Component view



TD/OMS Components

OMS01-TD/OMS training student 1 (3) ☒ Preview ☐ Procedures

Name	Type	Attribute	Sub Path	Location	Environment
MODOBJ1	*MODULE	RPGLE	OMSOP1P	OMSOP1P	PRD
Using					
Used By					
Imports					
_QRNL_CLOSE_EH	*MODULE	RPGLE	OMSOP1P	OMSOP1P	PRD
_QRNL_DB_WRITE_EH	*MODULE	RPGLE	OMSOP1P	OMSOP1P	PRD
_QRNL_OPEN_EH	*MODULE	RPGLE	OMSOP1P	OMSOP1P	PRD
_QRNX_CALL_EN_H	*MODULE	RPGLE	OMSOP1P	OMSOP1P	PRD
_QRNX_CALL_FC_H	*MODULE	RPGLE	OMSOP1P	OMSOP1P	PRD
_QRNX_CAN_EXC_H	*MODULE	RPGLE	OMSOP1P	OMSOP1P	PRD
_QRNX_CLOSE	*MODULE	RPGLE	OMSOP1P	OMSOP1P	PRD
_QRNX_DB_WRITE	*MODULE	RPGLE	OMSOP1P	OMSOP1P	PRD
_QRNX_DFT_ERROR	*MODULE	RPGLE	OMSOP1P	OMSOP1P	PRD
_QRNX_G_CANCEL_H	*MODULE	RPGLE	OMSOP1P	OMSOP1P	PRD
_QRNX_G_FC_H	*MODULE	RPGLE	OMSOP1P	OMSOP1P	PRD
_QRNX_G_INFSTR_H	*MODULE	RPGLE	OMSOP1P	OMSOP1P	PRD
_QRNX_INIT	*MODULE	RPGLE	OMSOP1P	OMSOP1P	PRD
_QRNX_INIT_H	*MODULE	RPGLE	OMSOP1P	OMSOP1P	PRD
_QRNX_OPEN	*MODULE	RPGLE	OMSOP1P	OMSOP1P	PRD
_QRNX_SIGNAL_EXCF	*MODULE	RPGLE	OMSOP1P	OMSOP1P	PRD
_QRNX_TERM_H	*MODULE	RPGLE	OMSOP1P	OMSOP1P	PRD
Q LE leActivationInit	*MODULE	RPGLE	OMSOP1P	OMSOP1P	PRD
Q LE leBdyCh	*MODULE	RPGLE	OMSOP1P	OMSOP1P	PRD
Q LE leBdyEpilog	*MODULE	RPGLE	OMSOP1P	OMSOP1P	PRD
Q LE leDefaultEh	*MODULE	RPGLE	OMSOP1P	OMSOP1P	PRD
Exports					
MODOBJ1	*MODULE	RPGLE	OMSOP1P	OMSOP1P	PRD
MODOBJ2	*MODULE	RPGLE	OMSOP1P	OMSOP1P	PRD
MODSRVPGM	*SRVPGM	RPGLE	OMSOP1P	OMSOP1P	PRD



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Graphical Impact Analysis

➤ Functionality

- Graphical representation of related components based on a selected Impact Analysis definition



Graphical Impact Analysis

➤ Issue

- When many components are involved filtering on type would be useful to connect only specific object types (eg file related) to a task

➤ Change

- Filtering on component type added



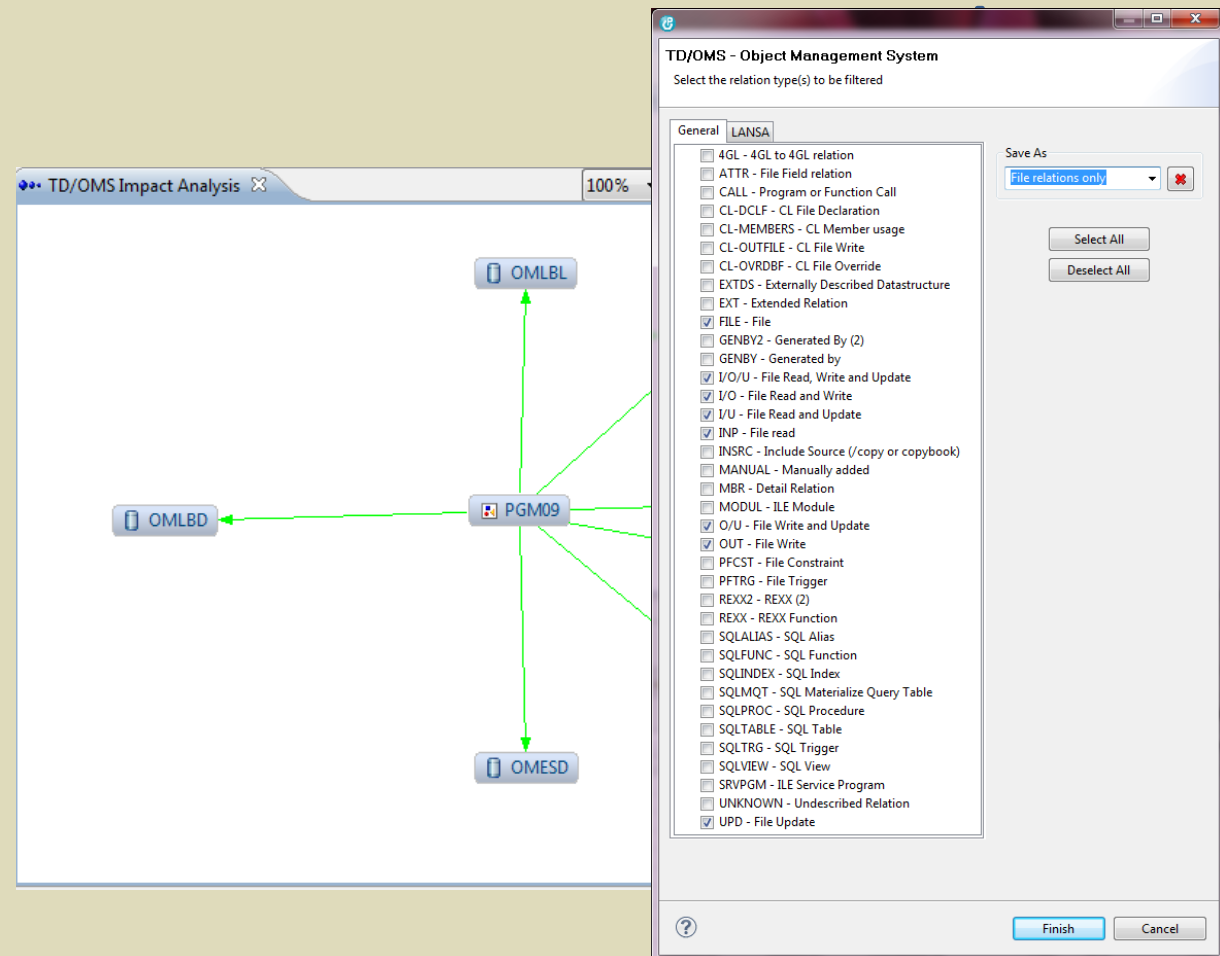
Graphical Impact Analysis

➤ Impact

- Easier to connect components to a task
- Less Impact Analysis definitions required to achieve the desired result



Graphical Impact Analysis

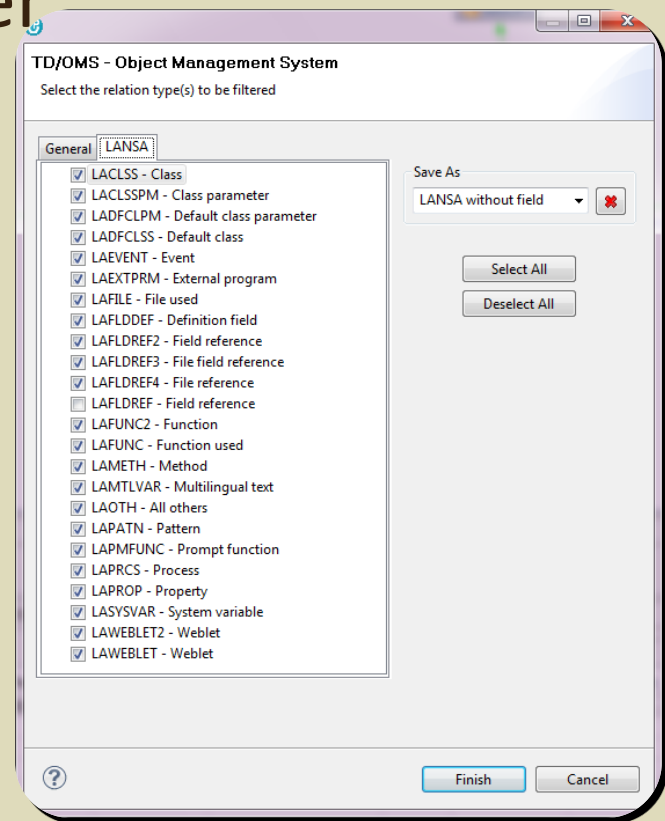


► Connected Development



Graphical Impact Analysis

➤ LANSA specific types in filter





New and Noteworthy V6

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 - **LANSA Source Archiving**
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LANSA Source Archiving

➤ Functionality

- Archiving the current version of a LANSAs function or field in the TD/OMS source archive library when the LANSAs component is moved through the cycle



LANSA Source Archiving

➤ Issue

- Very difficult/impossible to determine what was changed
- Requirement to generate a new version based on other versions of the component

➤ Change

- Implemented source archiving for LANSAs functions and fields



LANSA Source Archiving

➤ Impact

- Standard source compare functionality now applies to LANSAs functions and fields



LANSA Source Archiving

Revision Compare X

LI F0151 [DEMLA] (30) ☒ Preview ☐ Procedures

Name	Sub Path	Location	Description	Type	Attribute	Environment
▶ LIDEMO	DCXDEMOLIB	DCXDE	New		*DTAARA	*DEV
▶ LIDEMO	LV11R3DEV	LV11R	Open F3	Process	PROCESS	*DEV
▶ LIDEMO7	LV11R3DEV	LV11R	View Source	ns	FUNCTION	LIDEMO *DEV
▶ LIDEMUK	LV11R3DEV	LV11R	Show Impact Analysis	ANSA UK	FUNCTION	PSLUTL *DEV
▶ LIOPTUK	LV11R3DEV	LV11R	Delete Object		FUNCTION	PSLSYS_AB *DEV
▶ LIOPTUK	LV11R3PRD	LV11R	Show History		FUNCTION	PSLSYS_AB *PRD
▶ LIOPTUK	LV11R3TST	LV11R	Direct Connect		FUNCTION	PSLSYS_AB *TST
▶ LIOPTUK			Connect			
▶ LIOPTUK			Connect with Rules			
▶ LIOPTUK			Reload			
▶ LIOPTUK			Fill Object File			
▶ LIOPTUK			Refresh			

Compare With

- SystemReports
- UserReports
- Run User Option
- Show In Alt+Shift+W

Revision...
Each Other



New and Noteworthy V6

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CA 2E interface

➤ Functionality

➤ Checking in/out validation function

- Validating the Edit Model Object action before and/or after the 2E-model update by tracing the corresponding active solution in TD/OMS
- If active solution not present, interactive function will prompt to select a Fix and 2E Model Object connection is processed
- Function can be combined with permanent lock of 2E Model Object not in development



CA 2E interface

➤ Functionality

- Task oriented development using 2E Model List
 - Creation of Model List corresponding with Fix and its content



CA 2E interface

➤ Issues

- Unlimited access of programmers into all Model Objects in a 2E Model in use for development
- Unintentional change of 2E Model object
- Difficult to trace successive steps of last changes
- Frequent save of 2E Model “in production stage” mostly not available

➤ Change

- addition of user options and predefined programs, but open for customization



CA 2E interface

➤ Impact

➤ Implementation of User Options and use of existing 2E program user exit points

- Update model exit pgm (YMDLOBJR1C)
- Function lock exit pgm (YUSRLCKR1C)



Summary

- ☑ Attention points TD/OMS V6.4
 - ☑ Required IBM i OS version
 - ☑ License keys
- ☑ New and Noteworthy V6
 - ☑ Communication
 - ☑ Deployment
 - ☑ Development
- Enhancements are described in the release notes (available on Remain extranet)



Thank you for your attention

➤ Questions ?

