HOPEX V1R2 CP3

Changes Summary

Date: October 2014

Revision 1

MEGA Product Management

Content

Introduction

This document summarizes all changes coming with HOPEX V1R2 CP3. It is intended to be read before CP3 installation, in order to review and evaluate possible impacts of this installation.

You will find here:

- Recommendations about installation of CP3, and some reminders about HOPEX installations
- Technical changes
- Functional and user Interface changes

It is the first release of this document that will be provided with each new delivery of a CP or release, whenever it is relevant.

We hope you will find valuable information. Please share your suggestions or advice about any missing information.

MEGA Product Management,

Recommendations and Cautions

Web Front-End Applications and GBMS

Implementation of Web based applications and solutions with GBMS storage is not recommended, since some of the Web based functions are not available with GBMS. Thus we suggest that any configuration "Web solution + GBMS" should be validated by MEGA Product Management.

Default Connection Mode

All MEGA Solutions require using role-based connection mode, instead of the former profile-based connection used in MEGA 2009. Thus, ***the default connection mode has been changed to "Role-based"*** in CP3 for any new installation.

If installing CP3 on an existing MEGA environment, current mode remains unchanged.

Conversion Tools

Version Number

When opening an environment in CP3, System Repository version is upgraded (V3.8). It is therefore not possible to open the environment with an older version of MEGA, to prevent a possible corruption.

Desktop Command Implemented by Code Templates

During security audits a security flaw has been detected with HOPEX, highlighting the eventuality to insert malicious code in a component of the Web desktop through Code Templates. This has been fixed in CP3, with a conversion tool that fixes this Code Template issue.

If you have written such code (javascript in a code template), running the provided conversion tool is required to transform it. It enables to generate equivalent code in a specific JSON format. Web desktops should be tested after conversion to check against possible regressions.

This conversion is not mandatory, but recommended for customers willing to be up to date on security issues.

Mapping - Performances

A conversion tool deletes a part of the repository log (ChangeItemDataPublic objects related to mapping Item objects) and disables loggability for the MetaClass Mapping Item (loggability set to 'Unloggable (System Only)').

This conversion is not mandatory; it is required when the MEGA administrator decides that management of history of database mapping objects is not useful. Disabling log on these objects improves performance on some operations, and prevents the database from storing a high number of objects with low value.

MEGA Teamwork - Conversion of Location of Workflow Instance

A conversion tool changes location of workflow instances from System repository to data repository. The previous implementation was a source of trouble for export and reimport of data.

This conversion is not mandatory; the previous location is still supported. Do not run this conversion if workflow instances are still active (not in a final status).

For more details please refer to deployment guide.

RDBMS Cache Disk Requirements

From HOPEX V1R2 CP3.0, a RDBMS local cache is enabled at Application Server or Web Server level. This data cache avoids many queries to the database server. It improves performance, especially in configurations where a lot of reading is done, compared to changes.

As a consequence, additional disk space is required: you should ***anticipate an additional 5 GB of disk*** per MEGA environment on the Application Server (or local workstation in case of Windows client Server implementation).

For more details please refer to the deployment guide, especially to see how the cache size may be configured.

Metamodel Compilation

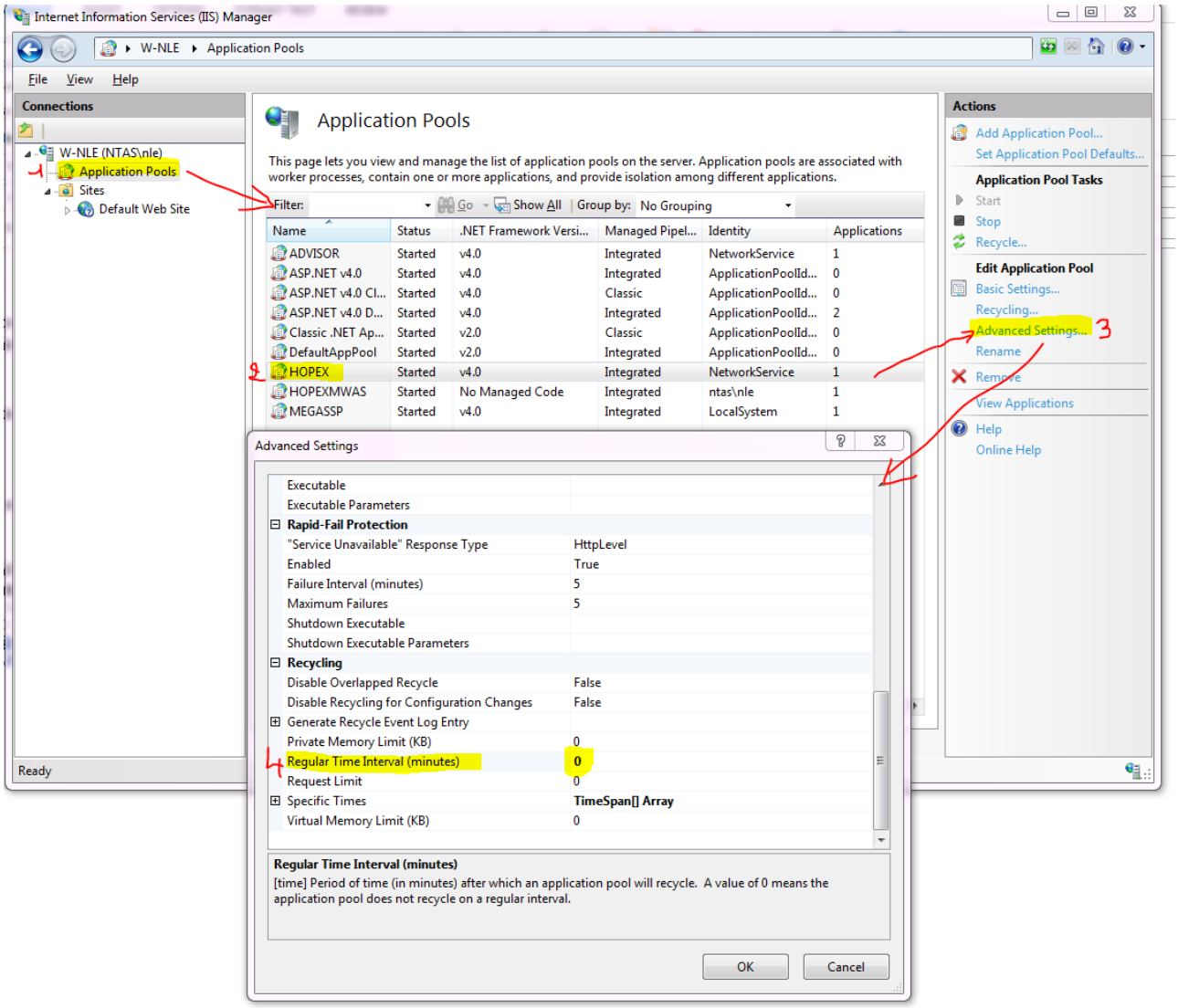
This process now needs to be scheduled and organized. New controls and growth of cache size resulting from compilation leads to a much longer time of compilation.

IIS Standard Values to be Changed

As a default, Microsoft IIS restarts application pools every 29 hours.

This results in a reboot of HOPEX Web front-end, generating this type of message for connected users:

Experienced customers may have changed this default value, but it is recommended to configure IIS for “Hopex”, “Hopex 2” and “Advisor “ application pools as follows:



Default value of 1740 minutes (29 hours) should be replaced by 0 (no recycling).

This configuration will be automatically made for new HOPEX installations (not during upgrades), as for next coming V1R2 CP4, and will be integrated in Installation Guide.

User Interface Changes

Options

The 'Management of assignment of business roles to persons' option is checked by default for new installations of HOPEX. In a migration context this option remains unchecked.

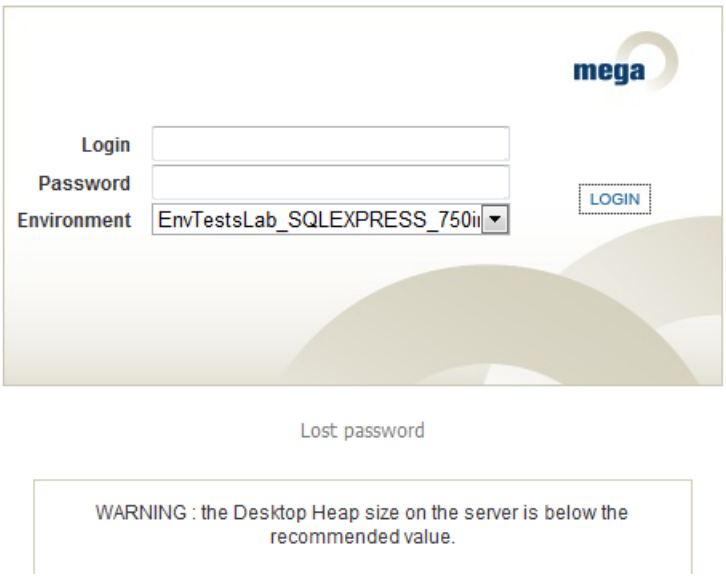
The ‘Definition of path of MetaAssociation’ option is set by default to ‘from HOPEX 1.0’ for new installations of HOPEX. In a migration context this option is set to ‘Compatibility up to MEGA 2009’.

Login

Web Front-End Login Messages

More accurate diagnostics are displayed at connection level in case of unexpected behavior of the system.

Example: Check of the configuration of the desktop heap:



In this example, it shows for first users or when checking the installation that some server parameters are not valid.

For more details please refer to the deployment guide.

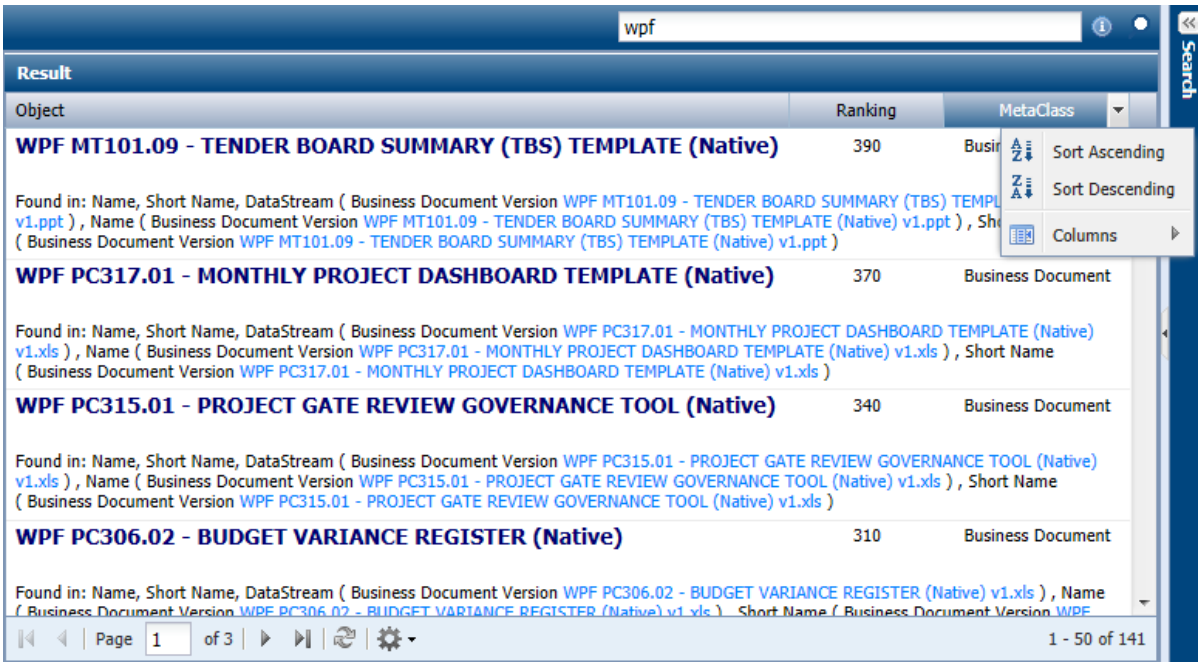
Full Search

Object Selection

Before CP3, selecting an object in the full search results page raised property page characteristics of the object. In CP3, it is now the default action associated to the object that is launched. For example, for a business document, the default action is “Open” (usually expected, rather than Properties).

Filtering

Filtering is available in the full search result page:



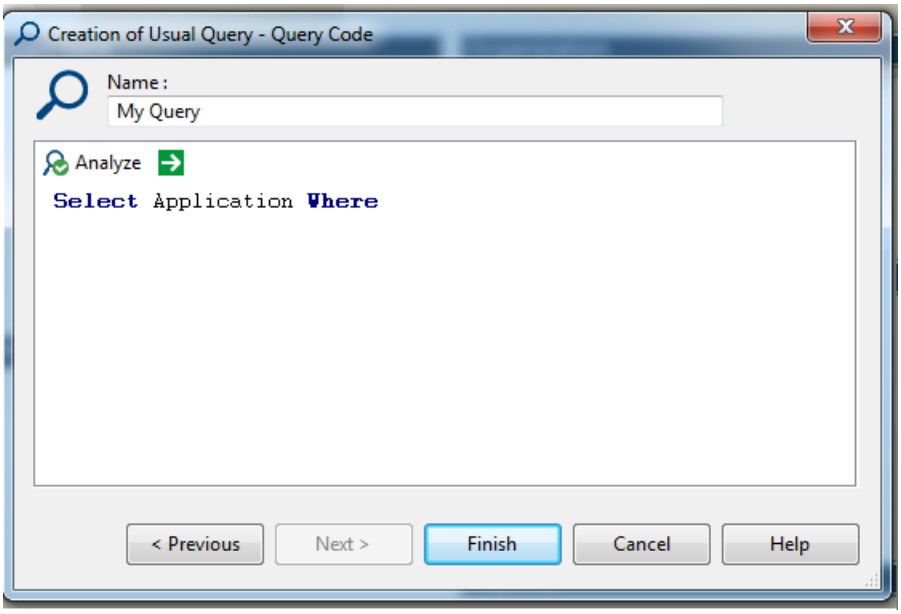
Result Details

“Result Details” may now be hidden in the full search results page.

Query

Creation Wizard Improvement

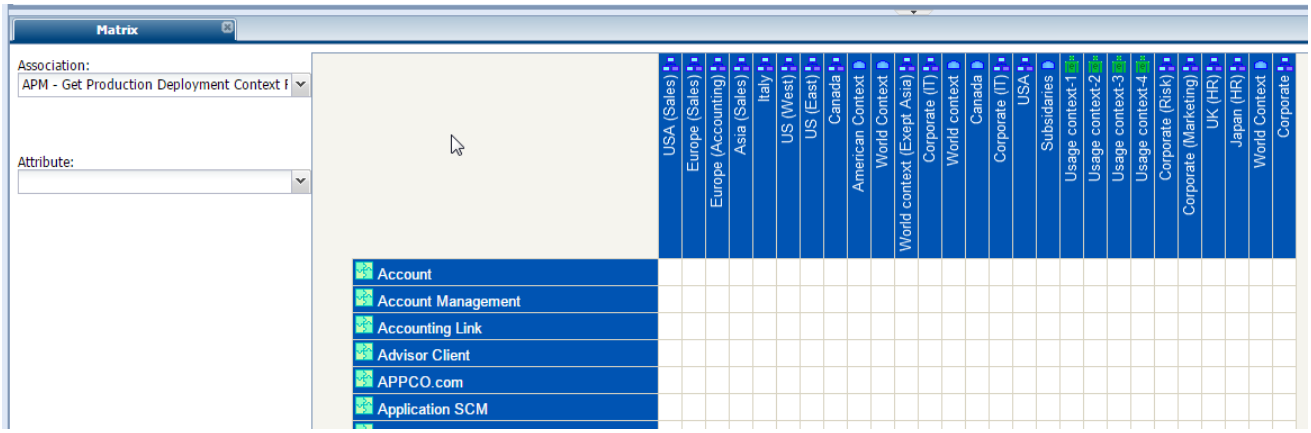
Query text can now be entered by user during the query creation:



Instant Reports

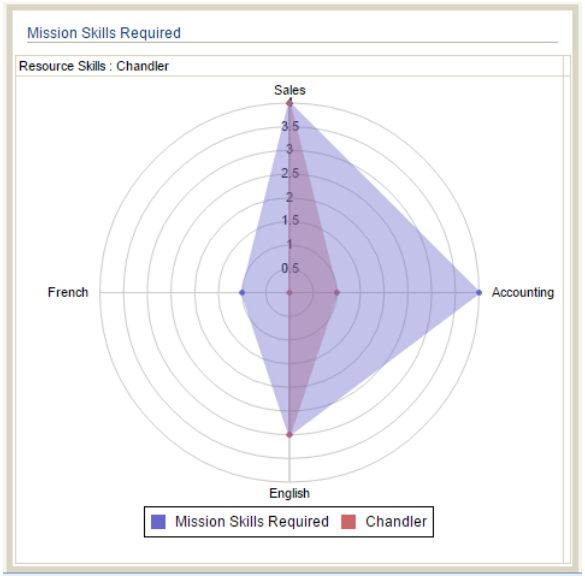
Matrix: Query as Association

'Usual query' is now available in MetaAssociation choice:



Reports

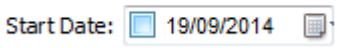
Radar reports in Web Front-End present a new Look & Feel:



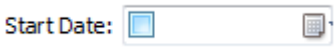
General

Dates

Display of predefined value (usually today) for non-initialized dates was confusing. It has been changed:



The display is now:



Web Front-End Administration

Scheduler Management

New administration pages for scheduler triggering enhance the Solution Administration tools.

User Management

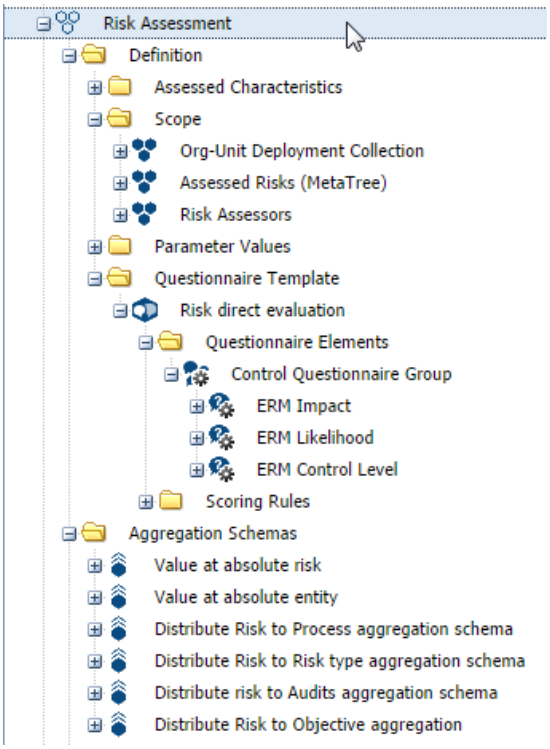
It is no longer necessary to recompile authorization graph to add new users.

Functional Notes

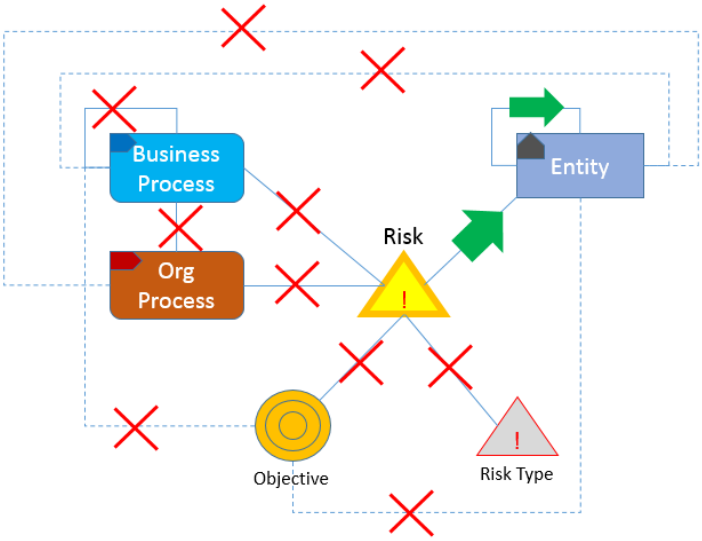
MEGA Enterprise Risk Management

Risk Assessment Template Improvement

- The “Risk Direct Assessment” template is renamed “Risk Assessment”.
- The risk direct evaluation assessment template is now the default standard template for both risk direct assessment (single or multiple) and self-assessment questionnaire campaigns.
- Other deprecated templates are no longer provided as part of the ERM Solution Pack.

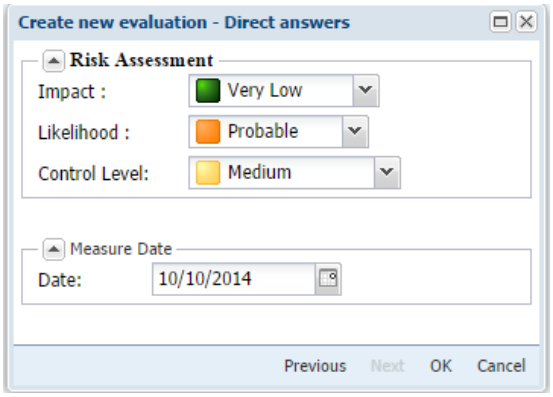


- Moreover, thanks to customer and market feedbacks, two simplifications have been made to the template:
  - The assessment nodes contexts computation has been simplified and is now based on the risk – entities link only, as indicated in the following diagram:



  - The risk assessment template assessed characteristics have been simplified in order to ease the risk assessment and fit the Risk Managers most commonly used methodology, and are now narrowed down to:
    - Impact
    - Likelihood
    - Control level

    The latter is no longer computed from Control Design and Control Effectiveness, but is assessed directly by the Risk Assessor

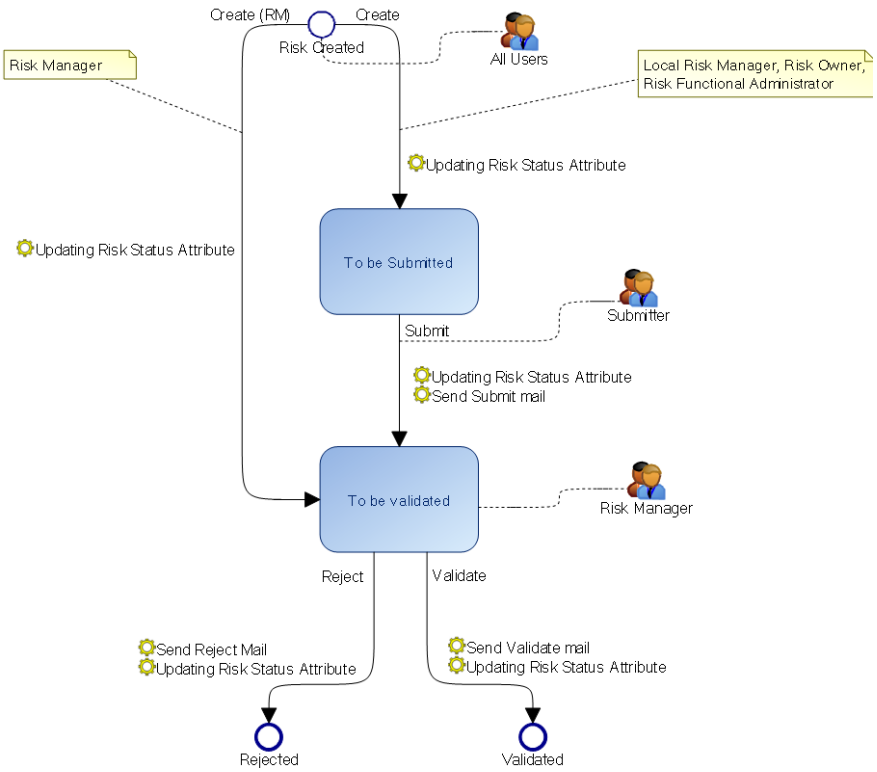


ERM Workflow Improvements

The ERM workflow has been simplified and improved.

- The two Risk workflows have been merged into a single workflow.
- The Risk Manager specific transition for Risk creation automatic transition “created” -> “validated” has been changed to “created” -> “to be validated”.

o This enables the possibility for the Risk Manager to modify the risk properties before validating it explicitly.



- The workflow CRUD rights have been reviewed and made more consistent.

	To be Submitted	To be Validated	Validated	Rejected
Risk Functional Administrator	RUD	RUD	RUD	RUD
Risk Manager	RUD	RUD	RU	RU
Local Risk Manager	RUD	R	R	R
Risk Owner	RUD	R	R	R
Risk Stakeholder			R	

Control & Risk to ERM Data Migration Support

Control & Risk customer wishing to upgrade to MEGA Enterprise Risk Management solution are provided with a migration macro toolkit, which migrates:

- MEGA CRK Risk attributes into MEGA ERM Risk attributes
- MEGA CRK risks assessment attributes into MEGA ERM assessment nodes
- Some MEGA CRK Control attributes into MEGA ERM Control attributes

These VBScript macros can be adapted to specific needs to take into account CRK or ERM customizations.

MEGA IT Portfolio Management

A new option allows managing in ITPM structured description of an application architecture done with SOIA, and also enables ITPM customers to describe complex applications.

This option is available upon request to MEGA Product Management, which will deliver to project team the means to unhide it. It has to be considered as a Beta version, delivered to mature or aware customers.

Here are the main features of this new concept managed in ITPM. For further details, please refer to user manual and/or Product Management.

With this new option, ITPM can manage Application Systems as a combination of several Applications. Application systems may be detailed with:

- Components (e.g. applications or other Systems)
- Responsibilities
- Life Cycle
- Functional scope
- Deployment/Installation
- Costs
- Evaluation

Components

An Application System is composed of applications and/or other Application Systems. Applications being part of an Application System may be considered as components or stand-alone applications. This influences the way costs are computed at Application System level.

Life cycle

An Application System has its own life cycle. It can be compared to its components life cycles, to detect possible conflicts. Gantt diagram of Application System displays its life cycle and life cycles of all its components.

Costs

Cost of an Application System may be computed based on component costs, or as a whole.

Evaluation

As they do for applications, Application owners may evaluate Application Systems they are in charge of, through three axes: business, functional and technological.

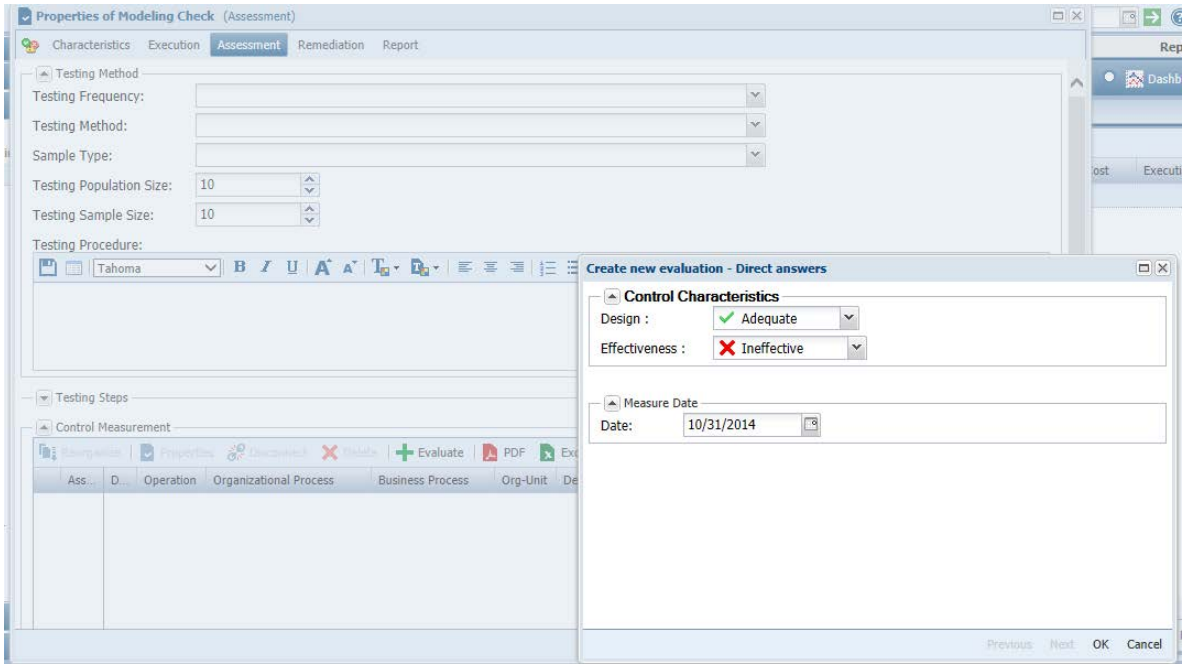
Deployment/Installation

The installation of an Application System is made of description of installation of its components, or part of its components.

MEGA Assessment

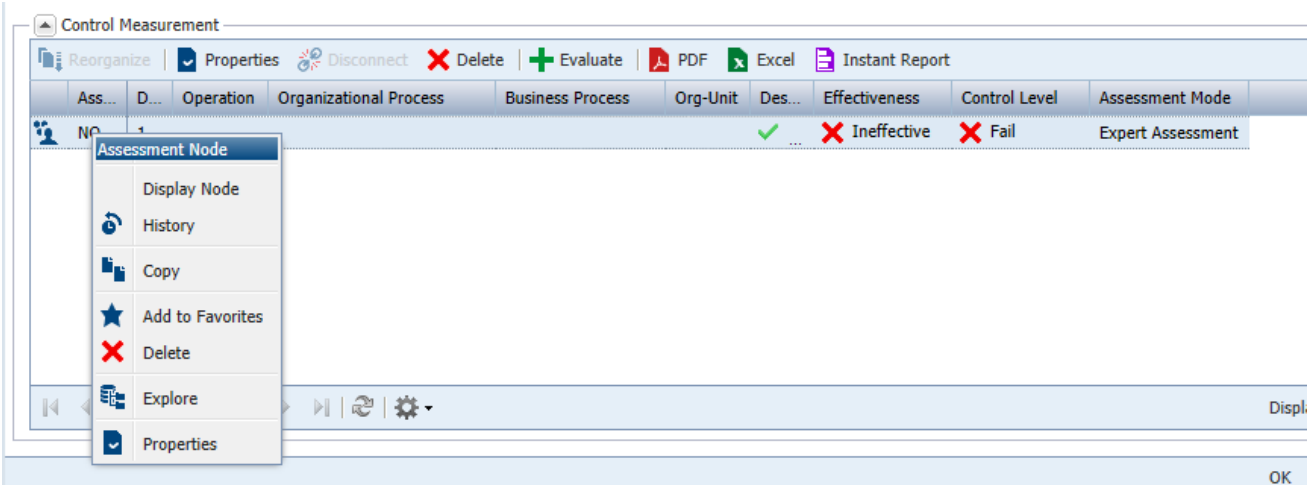
Direct Assessment

The Context page in the direct Assessment wizard is hidden when zero or one context object is detected. In this case the wizard is opened directly on the questions page.

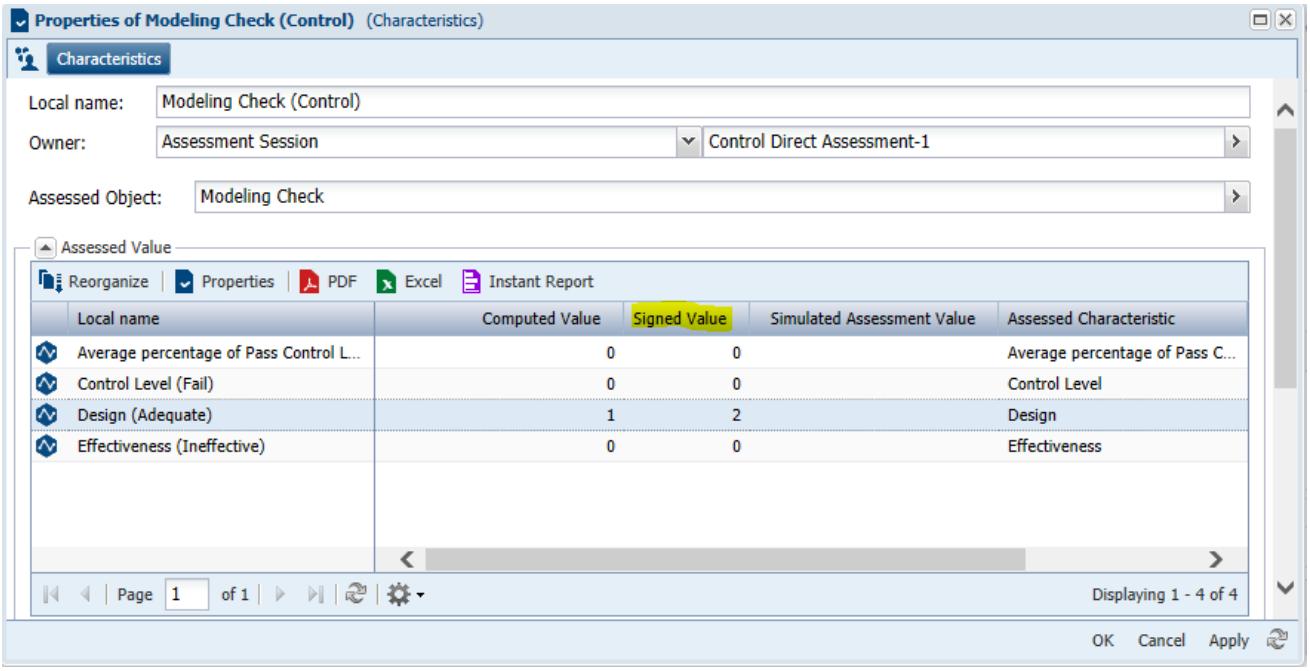


Assessment Measure

On the Assessment measure (node) you can now display the given answers to compute value by clicking on the “Display Node” right button.



In the « properties » box of the Assessment Measure, the Characteristics page displays the list of used Assessed Values and their computed value. You can override this value with the Signed value property.



MEGA System Oriented IT Architecture

“Application Architecture” is renamed “Application system”.

Realization

The component of logical Application Architecture can be realized by the component of application system.

Information Architecture

Dictionary Tree

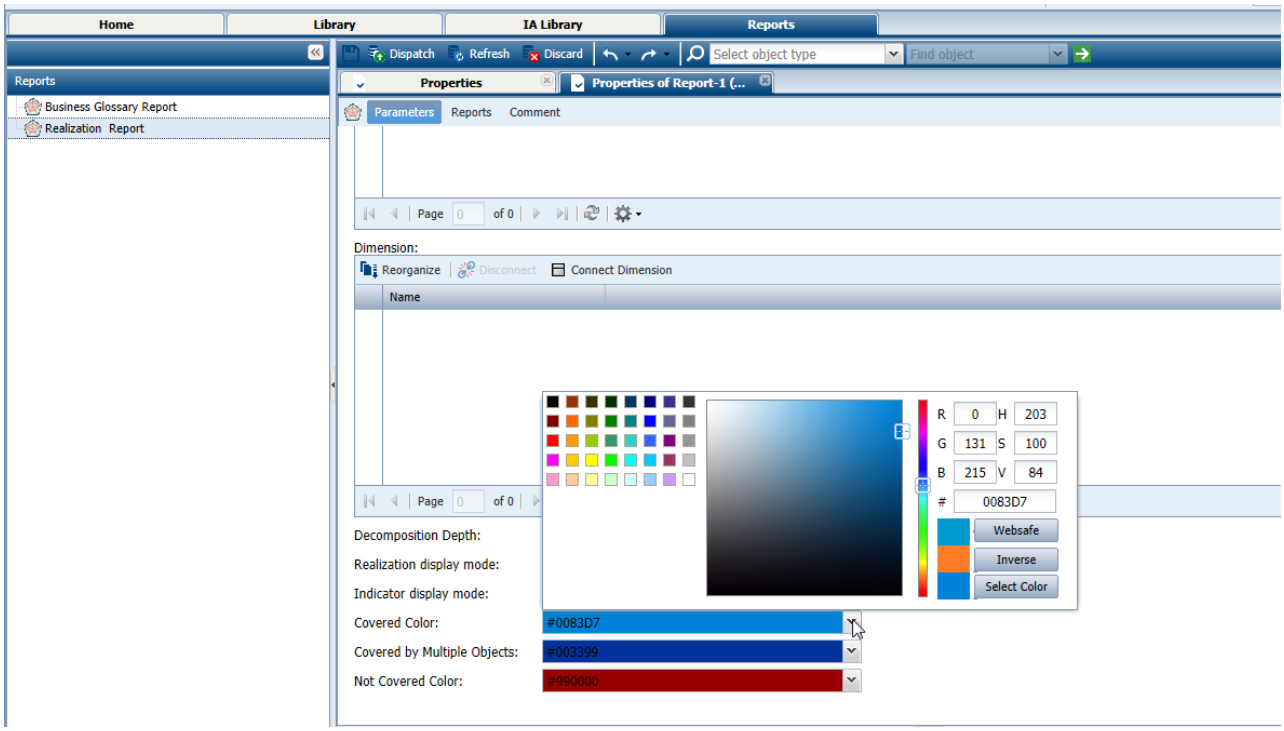
"Definition" folder is renamed "Concept" in Dictionary Tree. Also, "Preferred term" is renamed "Designation".

Realization Report

Ergonomics of this report has been improved. It is possible to set a specific color to indicate:

- Covered objects
- Non-covered objects
- Multiple covered objects.

When the report has only one classifier as input parameter, each object resulting from this parameter is displayed in an individual column.



MEGA Database Builder

SQL Generation

New RDBMS targets can be used in MEGA DBB product.

- PostgreSQL version 9.3
- Teradata version 14. *For this target the incremental generation is not supported yet. It will be implemented in a future delivery*.

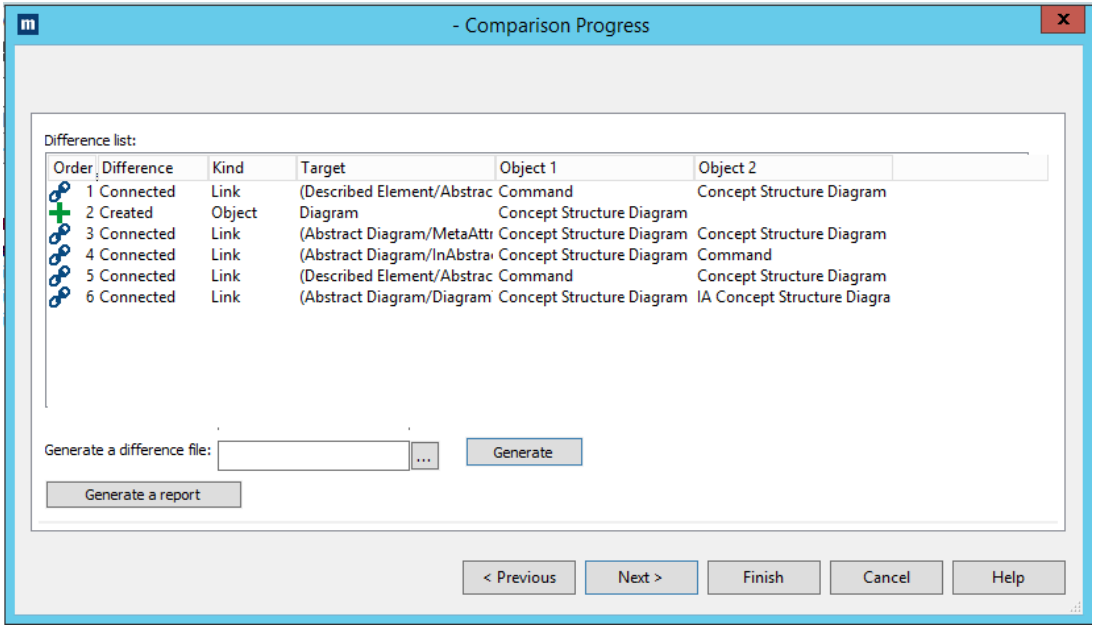
HOPEX Collaboration Manager

Workflow Action

When a new “In public” workflow action is created, a Scheduled workflow condition may be defined.

Compare and Align

The Compare and align tool has been improved both in execution and user options.



- The “Automatic align” option is removed.
- The commands list resulting from comparison is now accurate.
- To analyze a large results list of comparisons, it is possible to export them into an .mgr file.

HOPEX Explorer

Business Document

Clicking on a Business Document enables to download the document.

Reporting Improvements

Report (MS Word)

The following commands are added:

- Update Business Document
- New version of Business Document

Technical Notes

Performances

This section is designed to provide an overview of technical work done to enhance system performance. All details are not given here.

Reporting

Instant reporting initialization time has been drastically improved for large lists.

Time out on Reports

Time out occurring previously on property pages displaying heavy reports is now catched and will not appear anymore (but a long computation for a report remains long).

Writing Performances Improvement

Logs and object history are now written in « asynchronous » mode. As a consequence, as soon as the root action (create/modify/delete) is finished, user interaction may continue while HOPEX updates log and history data in background. Actual performance improvement highly depends on number of available processors/cores and system overall activity.

Reading Performances Improvement

Technical Data Compilation

More technical data (meta-model, permissions, workflow definitions…) is now compiled, so that the system needs a smaller number of requests to the system database.

Text Management in RDBMS

To minimize RDBMS access, all texts with a size smaller than 1500 characters after compression are now stored in a different way: they are stored in a standard text column in tables, and not anymore as a BLOB object that generates more activity on RDBMS. As a reminder, all texts longer than 512 bytes are compressed by HOPEX.

We remind also that MEGA does not support any direct access to RDBMS tables by external tool.

Local RDBMS Cache

A new RDBMS local cache is implemented to limit interactions with physical database. HOPEX will store read objects, in asynchronous mode, on hard drive of application server. All running processes (and not only writing process) may read this data if they need the same objects, improving response time to end users. HOPEX manages the life cycle and validity of these caches, removing files becoming obsolete.

This local cache is stored in [ProgramData]\MEGA\HOPEX 1.0\RDBMS data cache, and this location cannot be changed. It is strongly advised to exclude this folder from antivirus dynamic scan, or more generally to exclude *.MGC files for best performance.

Monitoring RDBMS Local Cache

Several options are available to manage this local cache. Management of these options has to be done by MEGA experts, after a detailed context evaluation.

- Activation RDBMS local cache.
- Cyphering of RDBMS local cache. Activates a cyphering of cache. Could drop performances.
- Cache delay (minutes): time before an object is cached.

Stand-Alone Web Deployment

Load tests in HOPEX Web Front-End have proven that, in most situations, COM communication was more reliable than HTTP communication.

This is a known issue and MEGA is working to improve robustness of HTTP communication in coming version. MEGA therefore recommends using COM Communication for single server deployment.

Reporting Improvements

Generate Report (MS Word) in .docx Format

Generation of report (MS Word) in .docx format depends on the “Format for generated report (MS Word) from RTF template” option which is available in environment where templates are converted into the .RTF format. When a report is generated, the .RTF document is saved in the .DOCX format.

The file natively generated is still an .RTF document and not a native .XML document. Installation of MS Word is not required to use this option.

Meta Studio

Reports Improvements

Line Chart Renderer: presents new parameters about line design, usage of non-filled values, scales.

Table Renderer: new parameters about layout (background colors, text alignment, text size) and possible actions (column sort, in-place edit).

Report Studio Improvements

- Possibility to use more than one report parameter in header computation
- Gauge Renderer is available
- Tabular presentation of Views is available
- Ability to remove the 'Click to edit' feature from a column
- Ability to hide a header in a tabular report
- Excel Export of multiple Views

MetaPropertyPage Improvements

In list views, it is possible to disable custom buttons based on a custom condition.

Is it now possible to insert Dive Tool in a property page.

For more information please refer to the Forms technical article.

Windows Front-End Administration

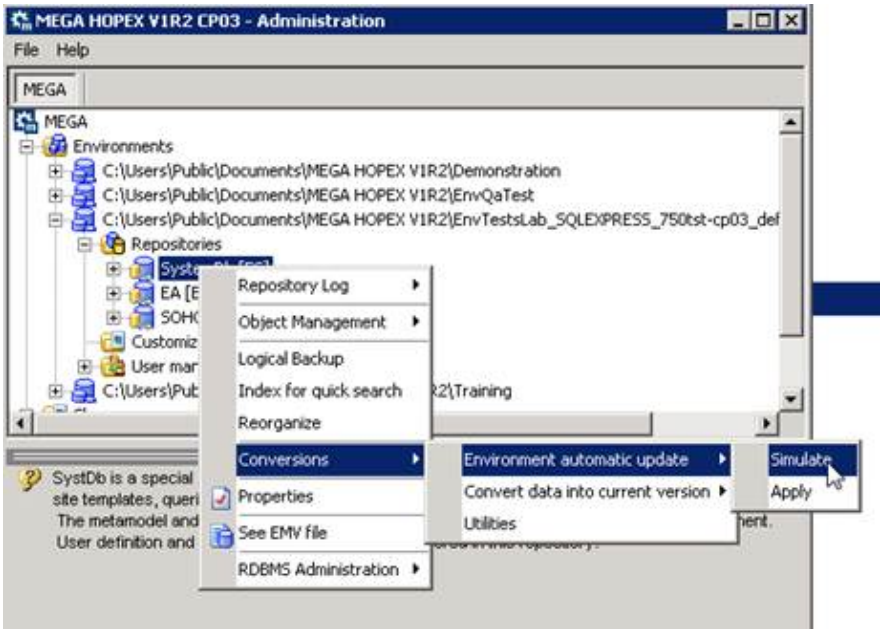
Change of File Extension for Compiled MetaModel Files (*.MGC)

In order to facilitate antivirus customization, extension of compiled metamodel files is now .MGC in place of .TMP.

Customization Tools

For more details, please refer to the « HOPEX Customizations » document.

Simulate Automatic Update



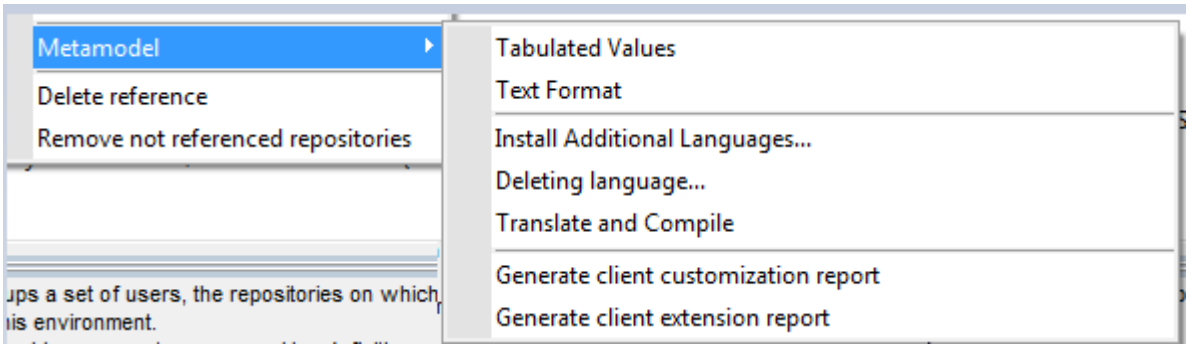
This new menu option simulates the upgrade file execution. It enables any customer or Product Engineer to point out which ***customized*** objects will be impacted by the upgrade file. If a standard MEGA object has been changed through a customization (which is not a best practice), this change could be erased by an upgrade that affects the standard object in question. This option allows evaluating impact of the automatic update.

This option generates two .XMG files:

- The first one lists all customized objects that will be impacted by upgrade.
- The second one lists change commands on these objects coming from the upgrade file.

We strongly recommend running this option once before applying any upgrade.

Generate Customization Reports



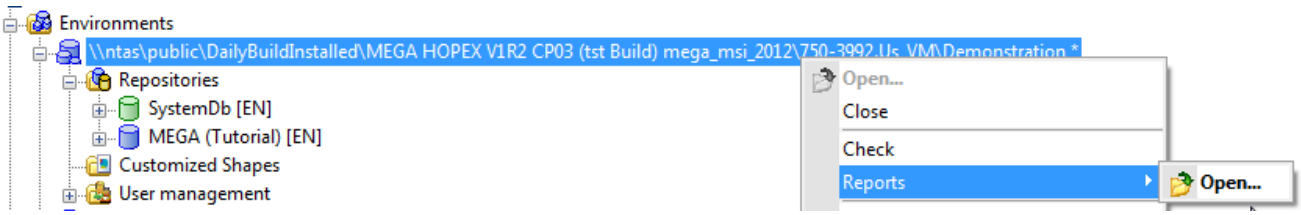
The last two commands on this menu generate two different Excel reports:

- A list of all MEGA objects modified by a customization
- A list of all custom objects added to the repository

Metamodel Compilation

Compilation of an environment has been improved:

- More technical data is compiled to improve performance
- Last compilation steps are isolated to enable validity checking of a new customization
- Embeds more controls, centralized in reports:



Compilation time is consequently much longer. Compilation window will close automatically at the end of the process.

Caution: Metamodel compilation operations must be done ***after*** all Web application services are stopped. Those services need to be restarted at the end of the compilation.

Lock Analysis Improvement

The name of the user originating a lock is now displayed.

Library Import

The 'Import an object library' menu is no more available, the standard import allows now to import library.

GBMS

Creating a GBMS repository is not allowed anymore in an RDBMS environment.

Security

Options

A new option is available for cyphered mails:

- Activate TLS support for SMTP.