CADMATIC
SOFTWARE SOLUTIONS

NUPAS
C A D M A T I C

Nupas-Cadmatic Outfitting
Cadmatic Plant Design
eShare – Information Management

Release Notes

2015Q3

2015Q3

1.   NEW IN CADMATIC 2015Q3

The tools and features have been developed in close cooperation with our customers and stakeholders and represent further proof of CADMATIC's commitment to continuously develop tools that enhance our customers' operational efficiencies.

CADMATIC continues the quarterly release model that was introduced last year. There are four releases annually and the release name refers to the year and the quarter when it has been published, e.g. 2015Q3.

License server of release 2015Q3 is compatible only with license files for version 2015Q2 and it is not compatible with older license files.

License server of release 2015Q3 can be used for applications of versions 5.0 and newer.

NUPAS-CADMATIC OUTFITTING 2015Q3 is compatible only with Nupas-CADMATIC HULL version 2015Q3 and newer. Outfitting will not work with older Hull versions and Hull will not work with older Outfitting versions.

ebm files published with 2015Q3 PLANT MODELLER are compatible with 2015Q1 or newer eBROWSER.

2. ADMINISTRATION

COS server

- Optimized use of already-read COS object information to improve performance of object browser for example when showing **Part Sizes**.

- Bug fixes:
    - Empty document folders caused troubles when restoring backup.
    - Document replication failed in offline replication if file was modified on master server after it was requested to replica.
    - When using COS accounts, system didn't remember password even if **Remember password** was selected.
    - In offline replication, files of removed objects prevented replication.

Project and Library management

- Alternate dimensions are now available for reports the same way as primary dimensions.

    - Values of dimensions are available as tags **D01**, **D02**, etc. Alternate values are now available via tags **$01**, **$02**, etc.

- Possibility to add and change alternate format of key dimensions in dimension table. In earlier versions also alternate formats of key dimensions were protected.

- Bug fixes:
    - It was not possible to convert Surface area and internal volume using normal conversion codes. New mm based tags were created:
      Surface area mm2 PI_TAG_SURFACE_AREA_MM (.iu) and
      Internal Volume mm3 PI_TAG_INTERNAL_VOLUME_MM (.iV)
      [*old meter based tags will remain for compatibility reasons:*
      Surface area m2 PI_TAG_SURFACE_AREA (Sur) and
      Internal Volume m3 PI_TAG_INTERNAL_VOLUME (Vol)].
    - Some shared settings of PLANT MODELLER were modifiable by regular user.

3. DIAGRAM / 3D INTEGRATION   5

- Automated publish of documents to eSHARE.

- Greatly improved Hole Management especially to handle cases where hull plates are modified after hole requests are generated.

- Non-watertight multi-pipe penetrations - Common Sleeves.

- Reporting from Containment Browser to generate easily 3D space based material take-offs.

- Comparison of cable ways and nodal networks to find easily for example latest changes which can affect to cable routes.

- Improved handling of alternate dimensions (for example inch dimensions) in material reports.

- Valve (armature) that is inserted into a piperun inherits NS of piperun

4. PIPING ISOMETRICS & SPOOLS

- Recreate Isometric/Spool Drawings changed to Delete and Recreate to make it more obvious what command is doing.

Bug fixes

- AUTOCAD® template was not attached to dwg when exporting spool drawing directly from spool drawing object.

- More checking added that only those spools are updated where there are real changes when geometry of isometric drawing is updated.

5. PLANT MODELLER

Piping

- Vital continuum for the multi-pipe penetrations: **Common Sleeves** for non-watertight bulkheads. Complete analogy with watertight multi-pipe penetrations.
  - Automated material, thickness and dimensioning of sleeves
  - Automated hole requests
  - Automated dimensioned production drawing of plate

- Bug Fixes:
  - In some very rate cases pipeline was unintentionally changed during routing of pipe.

UI

- Improved performance when changing colors of objects.

- Bug fixes:
  - Relinquishing of model objects was not always immediately visible using ownership colors on currently open views.
  - In some cases 2D pick didn't work correctly in axonometric views with view filter boxes.
  - New **Refresh** command (F5) ruined wire frame view in PLANT MODELLER.
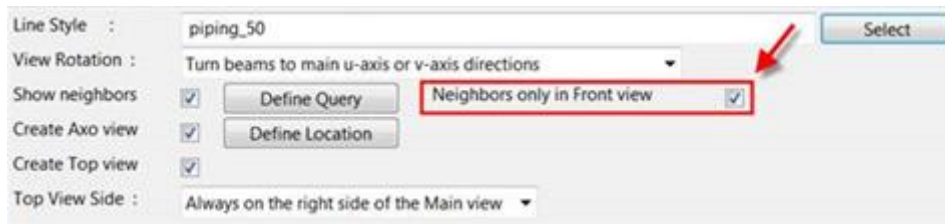
Drawings and Drafting

- 2D Annotations, Advanced Delete command.
  - Option to delete annotations selecting a set and then target deletion according to color, layer or pen.

- Bug fixes:
  - In some cases there was invalid label text size in PLANT MODELLER 's drawing after version change.
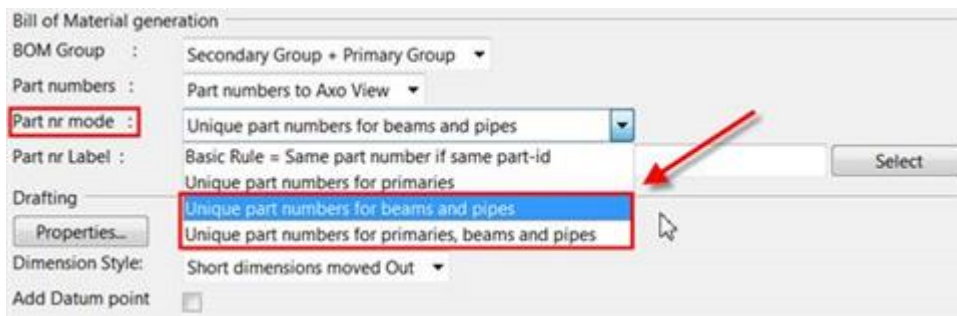
Tools

- Bug fix:
  - Viewing of Work Request eBrowser model was not working with 64bit eBROWSER.

Automated Support Drawings

- Writing of model.mdl is removed from saving. model.mdl had become useless and writing was wasting time.

- Option to show **Neighbors only in Front view** has been added to Support Spools settings. If neighbor set is defined to contain a lot of items (e.g. pipes, cableways, ducts) to make front view more clear then other views were sometimes messy when same set was visualized in every way.

- Option to have unique part numbering for beams and pipes (when used as secondary support) to enable cut lengths to BOM. This option can be used alone or together with the option to have unique part numbering for primaries.

6. CABLE ROUTING

- Diagnostic tools for comparing cable ways and cable routes.

    - local users are now able to compare the two PLANT MODELLER area models easily and reliably see which objects are different and in which say different.
    - also to see easily if the two models are not up to date, even if the users thought they are.
    - also to see easily e.g. changes during last day/week etc.

- eBROWSER publishing is enhanced so that we can publish an ebm of:

    - cable way objects in systems which take cables.
    - nodes and segments as 3D objects with associated info accessible via tags
    - the user can publish an ebm on and thereafter compare in eBROWSER.

- Made it possible to move the end point of cable with 3D cursor, when the cable is one of those not having the assigned end equipment.

- Pick node of selected cable head/tail equipment is improved.

- Rights to modify cables are now linked with the behavior of CABLE ROUTER

    - a user whose profile enables cables: can use CABLE ROUTER and do whatever he likes without limitations to cables, its attributes and nodal network.
    - a user whose profile denies cables: can open CABLE ROUTER but cannot modify anything related to cables or nodal network, but can just browse.

Bug fixes

- Runs in compartment was erroneously showing only the first compartment.

- Manual routing crashed in some cases if starter for broken cable.

    - crash happened when user tried to start manual routing for a cable that had first /last node defined but route was broken and didn't contain those nodes.

- Different evaluation order of nodal network caused that Routed cables of one design area were falling to Route Changed category of another design area.

7. CONTAINMENTS

- Reporting from Containment Browser to generate easily 3D space based material take-offs.

    - Containment Browser has a Report button with context menu that contains commands to generate a standard ICGD based report or to generate a custom report. The latter calls script ContainmentBrowserReport.mac. There is an example script that demonstrates how Containment Browser interfaces to custom reporter.

8. DUCTING

Bug fixes

- Nearest **Inside Vertex** command (Alt+E) was not working in free ends of straight ducts.

- Check-in state of duct spool and main document were not always in sync.

- In some cases there were overlapping annotations and views in duct spool drawings.

9. LASER SCAN MODELLER

Bug fixes

- PLANT MODELLER does not anymore lock point cloud files for read by other applications.

- When **Relocate > Move Cloud** command was used and result was saved, point cloud jumped to the original position.

10.   STRUCTURAL

- Structural unit browser lets the user to transform several structural units at time. **Move** and **Rotate** can be run to all items currently selected in the list window. Naturally only those structural units are transformed which have all of their objects, including the structural unit group itself, checked-out for the current PLANT MODELLER area.

Bug fixes

- It was not possible to pick structural and standard component parts of structural units.

- In some cases there were problems in **Beam Tool** when trimming or stretching beam by plane.

- File/Check out vs. Structural Units/Check out behaved differently with groups and unit members.

11. AUTOMATED PUBLISH DOCUMENTS TO eSHARE

- Site specific eSHARE server address for model and document publish.

- Option to browse published revisions (DWGs) of documents.

- Option to export published revisions of documents using any of supported formats (DWG, PDF...).

- By default published documents are skipped in cx-export. There is also a special option to create cx archive export with published documents.

- A new configuration object Common/Document Revision Marker has been added

  - It contains a simple list of revision codes and associated markers (by default from A to Z) that will be shown to users.
  - If configuration object is not present then a default version is created when application is connected to COS.
  - There is a simple text based editor to modify this configuration object.
  - Can stand in library database or it can be project related in project database.
  - Modified opening of PLANT MODELLER's drawing so that if user (interactively) starts an editing session that checks out drawing then a check is made to see if the current revision of the drawing already has a published revision. If so then user is asked whether a new revision should be opened.
  - Conversion of old-style-revision (text-box-based) of documents from old projects to the new revision marker system.
  - Revision markers and tables are reset when new project is created. Special option to bypass reset for support purposes.

12.   INTEGRATION WITH OTHER PRODUCTS

- Option to control heaviness of imported stuff.

    - PM_STAT_MODEL() is now able to generate a csv file that measures cost of model objects with respect to complexity of 3D geometry. This is closely related to impact of imports to visualization or collision detection.

Hull Integration

- Hull plate thickness and material are published as hardcoded attributes from HULL. Tag **.sp** is used for plate thickness and tag **.sq** is used for plate material. For example piping penetrations utilize these new fixed attributes.

- HOLE MANAGER has functionality for re-targeting hole requests in cases where they are associated with the wrong target. This means that the **Request for Hole** (RFH) is associated with a different object than the object that has the matching hole node. This can happen for example when a hull plate is split and the hole node is located on the new plate. Hull/NAPA/Tekla agents do these checks periodically and fix the situations when possible.

- Retargeting of hole requests:
    - Tool allows the user to retarget hole requests that have no target object or are associated to the wrong target object. Retargeting can be performed automatically by the system or manually by the user.

- **Requests for Holes** (RFH) are sent to HULL for processing only when **Request Update** command is used. Sending is not based on Check-in of RFHs as it was in earlier version.

- Functionality for sending hole requests again to Hull for processing, even if our book keeping indicates that they have been processed by HULL. This can happen in cases where an existing project has been used to setup a new project and Hull has removed all outfitting holes from the HULL project.

- Outfitting stores the name of the user that last modified a hole request. This is an embedded COS attribute. This name updated when the hole shape, dimensions, orientation or location has changed. When outfitting sends a hole request to HULL for processing it includes outfitting modifier name with the request.

- Bug fix:
    - HOLE MANAGER had wrong location of hole if hole request was moved outside HOLE MANAGER for example by using **Layout > Move** commandhave complained that analyzing RFHs (Request for Hole) with problems is time

Siemens TC interoperability

- Automated JT export via PM service.

- Incremental (just changed things) JT file updates.

- Doesn't reject whole face set if it was considered bad.

- More 3D primitives implemented via JTOpen toolkit.

Transfluid link

- Second decimal is added to the wall thickness.

Bug fixes

- 3D dumps (3DD and 3DC) broke when distance from objects to origin is several kilometers. Some pipes changed the shape and positions of objects were changed.

- 2D import could not handle arcs that have tiny length.

- 2D import did not correctly take origin point of block into account.

- Import of **Export All Objects** DDL didnt work properly.

- In some cases patch edges of BSVs were not visible.

- 2D import couldn't handle splines with control points.

13.   eSHARE

- The 3D rendering has been optimized to provide a better user experience, especially with larger models. An almost full rendering of the model is produced more quickly and smoothly than before. Smaller details are added gradually, but the user interface is active during the whole rendering so the user never needs to wait for the 3D rendering to finish. The user also sees all 2D overlays (map, coordinate display, smart points, bubble markers) during rendering and can click them. Objects can be selected during rendering without a delay or extra rendering.

New features

- Searches can be saved and run later.

- The document list has been renewed. It has customizable columns that show selected document attributes. The columns can be sorted and filtered in an Excel-like way. There is a quick search text filter that applies to all displayed attributes. Document files can be opened directly from the list by using the document name link

Changes

- Searches run much faster.

- Other PDF viewers than Adobe Reader can be used.

- It is possible to configure eShare to use IIS application initialization so that the first user gets served immediately without having to wait app pool to start.

- Users can be imported from Active Directory groups using the command line admin tool.

- The eSHARE server is 64bit. If the database adapter has been configured to use a 32bit database provider, it has to be replaced with the 64bit version.

- Administration user interfaces have been broken into smaller, more easily manageable pages that use a navigation pane on the left.

- Simple search shows combined results from model, managed documents and external sources grouped by model items.

- Link annotations in documents are shown as colored areas instead of underlining.

- Smart point and model text attributes can contain hyperlinks.

- Project administrator can define document types for file system document adapter.

- In document tree, the root folder of the file system document adapter displays the name of the adapter.

- System administrator can register a custom protocol to be accepted by eSHARE so that a base link in the hyperlink adapter can use a custom protocol.

Bug fixes

- If model publishing is interrupted, the system was left in a state where model publishing did not work anymore, and other errors might have occurred.

- After IIS application pool had been recycled (IIS does this automatically) errors were shown in commands that require user identification, and IIS thread sometimes started by using 100% of available processing time until it was killed.

- Search was re-run each time search tab was opened.

- Error occurred while deleting model when none had been published.

- Installer didn't always set proper permissions to eSHARE installation folder for application pool.

- Smart points: multiline text lost paragraph formatting in view mode.

- Model items had links to managed documents that shared attributes which were not identifiers.

- If a managed document had links with size 0x0 (label without text) some of the actual links in the document were not shown.

- Search box typeahead was not fluent when typing quickly.

- Objects were not shown when moving in model if insulation or edges were displayed.

- The 3D component hung when attribute based visual style was selected.

- Publishing a new model to eSHARE failed if model didn't contain all attributes that were used for categorizations.

14.   eBROWSER AND eGO

- The 3D rendering has been optimized to provide a better user experience, especially with larger models. An almost full rendering of the model is produced more quickly and smoothly than before. Smaller details are added gradually, but the user interface is active during the whole rendering so the user never needs to wait for the 3D rendering to finish. The user also sees all 2D overlays (map, coordinate display, smart points, bubble markers) during rendering and can click them. Objects can be selected during rendering without a delay or extra rendering.

eBrowser

- Fixes:

    - When moving between bubble views, 3D was rendered twice when a new bubble view was entered.
    - Point clouds disappeared when ebm was updated automatically.
    - User was able to move in model during animation between bubble views.
    - Objects were not shown when moving in model if insulation or edges displayed.
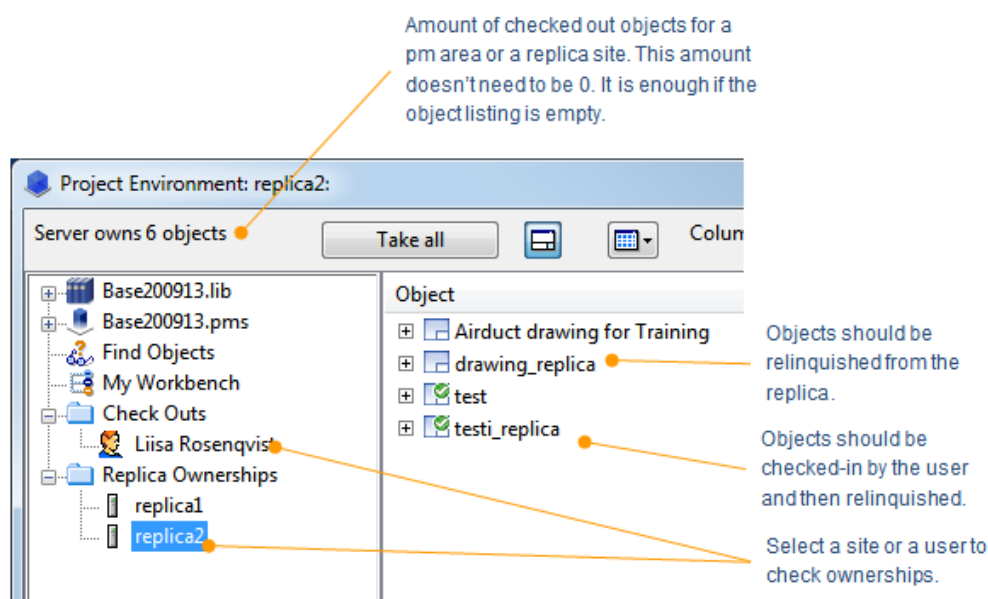
eGo

- Fixes

    - When side panels were swiped after selecting a 3D object, the camera moves.
    - Sweeping moved upwards-pointing camera in the wrong direction.
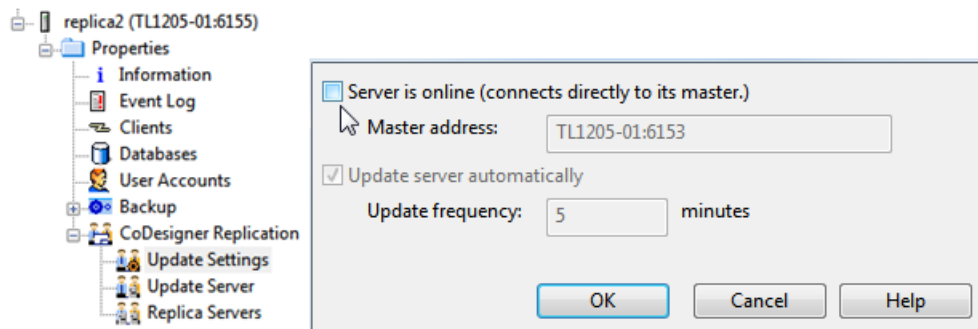
15. UPGRADING TO NEW VERSION

- Download latest installation media from CADMATIC's web page **Downloads > Customer Area**.

- This instruction is for upgrading version 6.0.7 or newer to 2015Q3. If you have older version than 6.0.7 that should be first upgraded to 6.0.7. If DIAGRAM application is used then intermediate upgrade to 6.1.4 is required.

Before Upgrading

- See that the replicas have received latest update files so that COS servers have same information.

- All users must save and check-in all objects. Some temporary spool attribute objects are left to ownership of the pm area even though **Check-in-All objects** is used. This is normal and doesn't stop the upgrading.

- All users must check-in all documents (PM drawings, Isometric and Spool drawings and diagrams.)

- At replica site all configuration objects in library and project database need to be at master site and not owned by replica.

- Verify at the master site that all ownerships have been received.

- At master site open **Library and Project Databases** and check that all relevant objects are checked in by replica. DO NOT **Force cancel check-out** or **Take All**. Objects that are always left at replica site are pm areas and replica sites.

- Exit all pm areas

- Create backup and save it to secure location, so that it is available even after the upgrade. Backup must be done at all project sites including all replica sites.

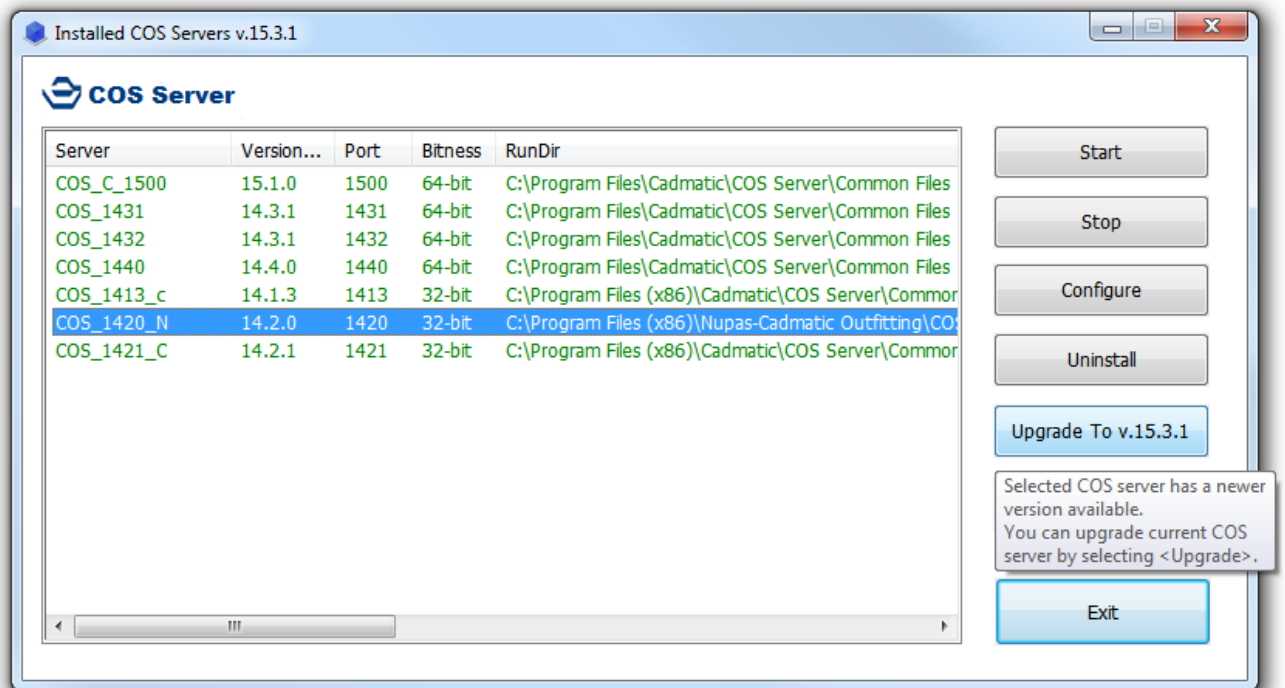- Make sure that online replica servers have been set offline from **Manage COS**

Upgrading License Server

- Check that your license file is compatible with the 2015Q3 version. License server of release 2015Q3 requires a version 2015Q2 of license file. Version number is in license file name (format of the license file name is *<name>_1520…lcf.cry*). License server of release 2015Q3 can be used for applications of versions 5.0 and newer.

- Uninstall License server from Windows ® **Control panel > Programs and Features**. Uninstall also Sentinel System Driver Installer if it's not version 7.5.7.

- Start License server installation from installation media. Follow the instructions on the installation media. The sentinel protection driver can be also installed at the same time. Be prepared to unplug and plug the license sentinel key when the installation gives the instructions to do so.
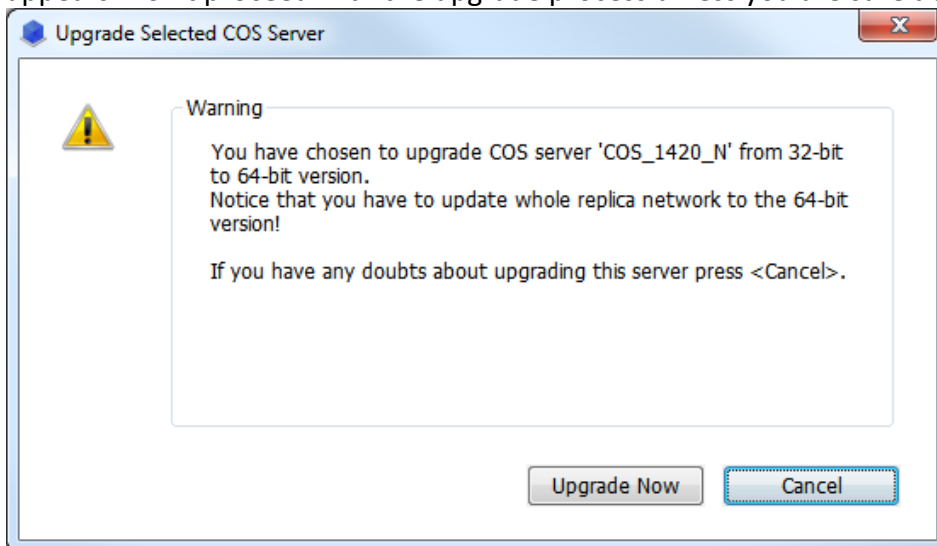
Upgrading COS Server

- Start Install COS from installation media and follow instructions.

- In case you have several projects under the same COS server you are about to upgrade, notice that you need to upgrade all the projects at the same time.

- Upgrade COS server to version 15.3.x.

- If you are about to upgrade a 32-bit COS server to a 64-bit version a warning message appears. Don't proceed with the upgrade process unless you are sure about it:
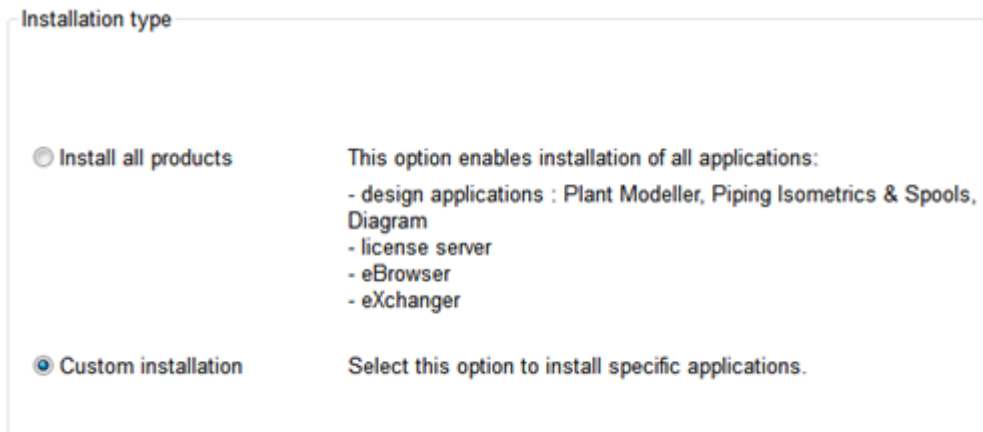

- Give COS server time to convert even if the program tells that the conversion is ready. Check the COS server folder, system creates temporary db.uc catalogue. The COS server convert is ready when the system has automatically deleted the temporary db.uc catalogue.

- COS server log writes following row when it has finished the upgrading process: "Database format conversion succeeded".

- If the COS server is disturbed, conversion is stopped too early.

- Check from COS server log that COS server is up and running. You can start and stop COS server and see if it keeps on running on new version.

- When COS server is successfully upgraded at both master and replica site, replica can be set online again or in case offline replication, update can be send from offline replica

Install of New Version Applications

- Start the installation media for 2015Q3:

- Run server installation or standalone installation:

- Install the program folders **c153** or **nc153** to your wanted server or computer location and follow instructions on installation media. New main version will be installed parallel with any existing version.

- Select the default profile or select your existing profile. Profiles need to be updated.

- When the program is installed check that the profile is correct so all users are using the new versions. Disable old profile by renaming it, if it is not needed.

- In case you have custom files in your program, earlier files merge your additions to new files

Converting Project

- Convert the project and library. In case the conversion is not started check security policy from **Manage COS** that system administrator has the right for project conversion.

- Conversion must be done also at replica site. If the replica site is offline, system notifies of the offline status but selecting **OK** will complete conversion

User Areas After Update

- Check that the area path points to correct location.

- Users can start their areas. First time they get a window with options to re-build the model from MDL or from COS. Both options can be chosen but in case of uncertainty select **Re-build area via COS update**

Profiles to be Updated

- PmArea.prf

- Component Manager PmGuest.prf

- Pipe.prf

- DmTools.prf

- Hull Agent PmTool.prf

Upgrading eBrowser

- Before you can install eBROWSER for version 2015Q3, older version (i.e. pre 2014Q1 version) of eBROWSER must be uninstalled. This can be done via Windows ® **Control Panel > Programs and Features**. After the uninstallation, eBROWSER can be installed form the installation media

Upgrading eShare

- After the software upgrade, models need to be imported to projects again as the import to database doesn't happen automatically during upgrade.

- Users may need to clear the browser cache.

- During the installation of the new version of the 3D Component on a client computer, Internet Explorer may need to be closed. Sometimes closing the visible browser windows is not enough but the remaining hidden iexplore.exe processes need to be ended via Windows Task Manager.