MasterConcept, Version 16.0

Table of Contents

1 Introduction

This readme contains information about Ides MasterConcept.

1.1 How to use this document

Please read this file thoroughly. If there are any questions please contact us (see Contacting).

1.2 Released Versions

After installing you should have the following versions on the different applications/modules.

Product	Version
MasterExplorer	16.0.0.113
MasterDatabase	16.0.0.113

2   Where to find information

2.1   Information Files

This file, readme.pdf, contains release notes for MasterConcept.

Note: If there are any late changes to functionality that was not included in the manuals there is a Late Changes.pdf on the CD that contains the changes.

2.2   Online Resources

2.2.1   World Wide Web

Check Ides' website regularly for information. The support team will post technical papers for solutions and workarounds. Here you also can find information on updates and new versions.
www.idesglobal.com
blog.idesglobal.com

3   Contacting Ides

3.1   Support

Contact the support team by phone: +46 (0)13 31 87 86 or email: support@idesglobal.com

4   Equipment requirements

The following chapters describe the hardware and software requirements for the MasterConcept products. Please note that this list is only a recommendation to reach a good performance for a system with one server and 5 clients having only MasterConcept Software installed.

Better hardware will improve the performance.

4.1 Hardware requirements

4.1.1 Server recommendation

Name	Comment
Processor	Intel® Xeon® Dual or Quad-processor
Internal memory	3 GB (x86) 4 GB (x64)
CD-ROM drive	40X Max CD-ROM drive
Hard disk	Type: SATAII or Ultra3 SCSI 10,000rpm hard drives
Hard disk size (minimum)	4,5 GB (system and temp files) 9 GB (database and files)
Network	100 MB/s or better

4.1.2 Used disk space

Name	Comment
Oracle server Software	4,5 GB
Oracle data files	500 MB
elMaster data files	500 MB
elMaster Software, symbols	320 MB

4.1.3 Client recommendation

Name	Comment
Processor	Intel I5
Internal memory	3 GB (32 bit) / 6 GB (64 bit)
CD-ROM drive	40X Max CD-ROM drive
Hard disk	SATA-3, 7,200 rpm
Hard disk size	120 GB
Network	100 Mbps
Graphics	1,280 x 1,024 true color video display adapter 128 MB or greater, 21" Monitor

4.1.4 Used disk space

Name	Comment
Oracle Network Client Software	1 GB
AutoCAD Software	6 GB
elMaster Software	320 MB
elMaster Software, symbols	320 MB

4.2 Software Requirements

4.2.1 Operating System

64-bit version of the operating system is recommended due to memory constraints in the 32-bit versions.

Name	Comment
Windows 7	
Windows 8/8.1	
Windows 10	

4.2.2 Server

Name	Comment
Oracle Standard version 11g	
Oracle Standard version 12c	

Unicode Support

To Support of Unicode in your Oracle database set the **Oracle Database Character Set** to UTF8.

Name	Comment
NLS_CHARACTERSET	UTF8

4.2.3 Application Server

Name	Comment
Windows Server 2008r2, 2012, 2012r2	
Windows Authentication	You need to install the Windows Authentication Feature
Optionally a SSL certificate for the host system (if using https)	

4.2.4 Client

Name	Comment
Oracle Client	Version 11.2.0.3 or higher, prior versions do not include support for .NET 4.5 and EF. The components needed are - Oracle Data Provider for .NET - Oracle Provider for OLE DB
Autodesk AutoCAD 2013	Products Electrical, Mechanical, P&ID, Plant 3D, Architecture
Autodesk AutoCAD 2014	Products Electrical, Mechanical, P&ID, Plant 3D, Architecture
Autodesk AutoCAD 2015	Products Electrical, Mechanical, P&ID, Plant 3D, Architecture
Autodesk AutoCAD 2016	Products Electrical, Mechanical, P&ID, Plant 3D, Architecture
Autodesk Inventor 2014	SP1, and for Operating System Windows 7, Windows 8.1
Autodesk Inventor 2015	
Autodesk Inventor 2016	
Autodesk Revit 2014	
Autodesk Revit 2015	
Autodesk Revit 2016	
Microsoft, Office 2007	
Microsoft, Office 2010	
Microsoft, Office 2013	
Microsoft, Office 2016	
Microsoft, Office 365	
Microsoft.Net Framework version 4.5	
Microsoft MDAC	Required to enable use of Access as a format for briefcase, 32bit only

On 64-bit only 64-bit versions of AutoCAD and Oracle client are supported.

If you have any questions concerning the software or hardware requirements contact us. See "Contacting ".

5 Functionality

5.1 Key Features

Notifications

The system can now send notifications to users in the system. The notifications can be sent when something occurs or when the user should do something, for example signing a workflow phase (like a reminder).

The user can subscribe to changes occurring to objects, documents, information objects and projects. The notifications can be sent in form of an email, an internal notification in the database or a MasterCommunity mail.

A new overview portlet has been added to work with the database notifications. There are also possible to create your own templates for the notifications.

Notifications requires an Ides Application Server installed and available to the client. Please Contact Ides Support for this.

Dashboards

Dashboards are a new way to display information from difference sources on a single space, in the form of "tile" like dashboard elements. This allows for a better overview of more information, e.g. an object can have elements displaying article, individual or notes in a single space in the "dashboard" tab page.

The dashboards can also be more specific than their predecessor "portlets", allowing different dashboards to be displayed for different object categories.

docMaster Mobile and Masterportal

These two products are now using a new product platform based on web technology, which makes them accessible from many operating system and many devices. Masterportal is as previously used for viewing documents. docMaster Mobile on the other hand contains a subset of functionality from the docMaster explorer which includes creating new documents, check-in/checkout and properties editing.

News in both products

- Information Objects Structure is shown and can be used to locate documents
- Objects Structure is shown and can be used to locate documents
- Notes/Comments can be made on documents

Ribbon Update in Explorer

In this version, the Ribbon in the explorer has been updated with all right mouse menu options. The context menu has been reduced to the most import functionality. The Start-Tab has been loaded with all

Main Folder menu functions. The order and the size of some ribbon functions has been reviewed and changed accordingly.

Explorer dialogs from Design

Design has a new context ribbon tab with explorer functions that becomes active when a symbol is selected. This makes it possible to open explorer dialogs directly from Design and get the data from the symbol instead of the marked object in the explorer tree.

New functions to access Explorer dialogs has also been added to the MC Home tab. Document dialogs has been added in the el/proMaster panel, and Connection & IO dialogs has been added in the connection dialog. These dialogs are opened without context.
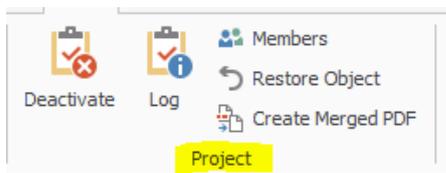
Label Customization

It is now possible to customize how labels are presented in the Data Tab and Edit- and New dialogs. This includes changing the order of labels and label groups. This feature is available for objects, documents and information objects. The administration dialog for this is accessed through the context menu in the Label Configuration dialog.

5.2   Important Information when updating to 16.0

Context menu options have been moved to the ribbon

The most apparent difference in the UI is that most menu options in the "right-click" context menus have been moved to the ribbon interface, in order to reduce complexity and decrease "cluttering" of menu options.

The moved menu items can now be found under their respective category, i.e. the menu options for project management have been moved to the "Project" ribbon category. Try looking for the category of a menu option and then identify it in the ribbon, if you find an option missing from the context menu.

Label Customization, Data Tab vs Groups and Labels

As mentioned, this version includes the option to customize the data tab by rearranging the order of labels and label groups. When upgrading to this version there some key differences to observe, listed below.

- All existing labels assigned to a group will be visible under that group as usual, but not under the "properties" group. Instead, existing groups will be listed directly at the "root level".
- Existing labels without an assigned group will now be located under the group "Properties".

- If a property is missing after the upgrade, make sure that the property has a label assigned to it in the label configuration dialog. ***In order for the new group customization dialog to be able to list all properties, all properties need a label assigned to them***.
- The "Demand Data" group has been removed, as well as the "Additional Data" group. The properties that were listed under these groups can now be found under the "Properties" group.

If other important differences are observed, please contact Ides Support for additional information on how to customize the data tab appearance to your liking.

Cable & Wire handling

Some changes have been made regarding the handling of Cables and Wires that exist in drawings. First off, the Remain Cables as built (*ED_KEEP_PHYSCONN*) functionality has been removed; this setting no longer has any effect. This functionality can be replaced by using the *FT_KEEP_CONNECTIONS* setting instead. This setting has now been extended into two settings:

- *FT_KEEP_CONNECTIONSCAB*
  – Handles connections allocated as Cables.
  TRUE means the cable will be kept as is, no cores will be disconnected no matter what happens to the connections in the drawing, while setting the variable to FALSE means that the cores will be disconnected when the connection in the drawing is changed.
- *FT_KEEP_CONNECTIONSWIRE* – Handles connections allocated as Wires/Links.
  TRUE means the wire/link will be kept as is, no cores will be disconnected no matter what happens to the connections in the drawing, while setting the variable to FALSE means that the wire/link will be completely removed when the connection in the drawing is changed.

This means that you can for example make sure that the Cables are never affected when you change a subnet, however the Wires and Links can be removed.
The system will automatically create the two new variables when upgrading to version 16, and will set then to the same value as the old *FT_KEEP_CONNECTIONS* variable.

The variable EPC_PRJ_PROJDENOM is removed

We removed this variable and now use the Main Folder Settings instead.

Publish to Web removed

This functionality has been replaced with MasterPortal.

Menus in design removed

There is no longer any possibility to switch between Ribbon Interface and menus. The Ribbon Interface is the only included in this version.
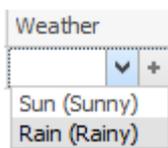
5.3   Changed Functionality

5.3.1   Common

Microsoft Active Directory Synchronization

It is now possible to activate Active Directory synchronization in MasterConcept. The synchronization will create/update users and roles in the system representing the AD users and groups in an OU pointed out by an administrator.

Add list item

For labels of type *List of values*, *Filtered list of values*, *Suggestion list* and *Filtered suggestion list* the user can now add list items outside the *Label Configuration* dialog. If the user has administration permissions for labels a plus button is displayed next to the dropdown button where the label is used. After adding value and description in the input dialog shown after pressing the plus button the new item is added to the list.

Figur 1: Plus button for a fixed list label.

Hyperlink editors

Hyperlink editors now works everywhere, and are activated with a single click instead of a double-click.

MasterCommunity updates

Several stability and performance related fixes has been made to MasterCommunity, as well as bug fixes. A serious bug where MasterCommunity sometimes could not be opened when minimized has been fixed.

Predefined activities

It is possible to automatically add activities to a document or project workflow phase.This is done by specifying that a group of activities should be applied to a document/project when it reaches a certain workflow phase.

Notes Overview

Documents, items, objects and projects can have notes. Certain nodes in the tree will activate the notes overview button in the Ribbon. Clicking it will show all notes of the marked node and its children.

Role handling for basic solutions

The role system has changed the way basic solutions are handled. Now there is one role that allows administration of basic solutions and one that allows using basic solution.

The "quick search" field now searches using indexed columns

The "quick search" functionality visible above the tree list now operates in the same way as the standard search dialog, i.e. it uses the configured index columns to match the query and supports the same syntax. This makes the search results predictable all across the program.

Creating new custom folder

The option to create a new custom folder has been removed from the right click menu on main folders. Creating a new custom folder is now done by open the "Select Folder..." option in the right click menu and then clicking the "Create New Folder" button.

Report to object relation

Reports now has a relation to the objects they contain, meaning that it is possible to select an object and in the document list see the reports it is present in and vice versa.

Negative role modules

There are currently three role modules that prevents the user from editing certain parts of the content

- Read-only mode for articles
- Read-only mode for individuals
- Read-only mode for Qualification Data

These role modules has been moved to a separate group, "Read Only", to avoid confusion since all other modules gives the user access.

New tool for measuring database latency/performance

The new dialog is available under "Administration => Miscellaneous => Check database connection" in the ribbon. By pressing the "run all tests" button in the dialog, you can get an indication of latency problems or, if the queries takes too long to finish, potential performance issues.

5.3.2   Project Handling

Project Overview

A new dialog to list all projects has been added. This makes it easy to filter and find projects.

Project management for Information objects

Information objects are now included in the Project Management functionality. The main features include:

- Information Object logging (Reserved, Created, Edited, Deleted)
- Handling Information objects in project folders as well as in AsBuilt.
- Project Tree includes information objects

Project Phases Dates

It is now possible to specify a start and an end date for each phase.

Force subprojects to be closed before closing the main project

Set the variable "EXP_FORCESUBTASKCLOSED" to "TRUE" in order to force subprojects to be closed before the main project is closed.

5.3.3   Document Handling

New "Check document Demand Data" dialog

A dialog for listing objects where the demand data is not specified already exists for objects. Now, a similar dialog has been created for documents, in order to get a better overview.

Mapping email properties to document fields

 It is now possible to map properties from an email document, i.e. a saved outlook email "msg" file. For example, the subject or the senders email address can be mapped to regular document database fields like "DENOM1" or "DESCR" etc.

Watermarks

A new handling of watermarks for the generated PDF's has been implemented. The user can specify an image or a text (including font, size, style, color and rotation) that will be added to the PDF as a watermark. It is also possible to specify for which Type Codes the Watermark is to be used.
The watermark to use is specified in the Document workflow phase, you can for example add a "Draft"-watermark to all documents in your draft-workflow phase.

Default Workflow Signatures

It is possible to set workflow signatures that a document should receive automatically when created. The administration dialog is found at *Administration -> Document -> Default Workflow Signatures…*
It is also possible to edit some parts of the configuration by right clicking on a main folder or project and select *Default Workflow Signatures…*

AutoDoc

When running AutoDoc on revised documents, meaning documents in a revision that is not the first revision of the document, some fields are blocked from being updated by AutoDoc. Which fields is configurable in variable AD_REVISION_FILTER. Default value is document number, sheet and filename.

Importing mail attachment by "drag and drop"

You could import a Microsoft Outlook mail attachment by dragging the attachment to the tree (only certain nodes) and drop it there.

Importing documents by "drag and drop" to objects

Documents can now be imported by being dropped on an object in the tree. The imported document will receive a relation to the object it was dropped on.

Workflow machine in the Document list

A read-only column has been added to the document list showing which workflow machine the document is using.

Editing activities on multiple documents

It is now possible to edit activities for multiple documents using multi-select in the tree and opening the activities dialog. All existing activities will be removed and replaced by the ones you specified.

New documents inherits the document group node data

You can have a new document inherit the data specified by the document group nodes by right clicking the node and select one of the document types in the "New Document" submenu.

The "Doc. Info" column in the Document list handles new document statuses

The column now also shows if the document/report needs to be updated due to changes made to

- An object contained by the document.
- A contained object's parent designation.
- A terminal of a contained object.
- The document from CAD.

Document status field shown in the document data

The "Doc. Info" column from the Document List has been added to the Data tab and the edit dialog for documents.

Ribbon interface in the document import dialog

The dialog used for importing documents has been converted to use a Ribbon style interface.

Sending outlook emails and saving sent emails from MasterConcept

By enabling a setting (see separate manual), documents can be sent via outlook from MasterConcept. This feature differs from the previous "Send via mail" functionality, since the sent emails can be saved and related to an information object.

Emails can also be sent to the subscribers of a selected document, if the subscription functionality is enabled.

Setting for requiring PDF in order to increment workflow phase

A new variable "DOCWF_FORCEPDF" is now available in order to require that documents must have a PDF generated before incrementing the workflow phase.

Document property mapping now supports outlook email exports

Properties like "date sent" or "subject" can now be mapped when importing outlook emails ("msg" files). The properties are visible under the "datasource" column in the property mapping dialog. See the manual for property mapping for more information.

New dialog for administrating letter codes for object categories

This dialog is available under the object administration menu in the ribbon, and allows the user to easily create or change default letters for new objects of the different object categories.

Last check in and Modified Date

The document list columns "Last check in" and "Last checked in by user" are updated with the current time and user when a document is checked in. The column "Modified Date" is at the same time updated with the value in the "Modified" field in the physical file.

Document Preview

It is now possible to preview multiple documents at a time if you are using the built-in PDF functionality. Simply select either a list of documents, a document node, an information object containing documents and select the preview tab or click Preview in Window. The preview will be generated using the PDF Merge functionality and settings, meaning that you can also get for example bookmarks in the preview.

5.3.4   Reports

New report from ribbon

New report has a submenu for quick links just as document has.

Apparatus Lists

The apparatus list data has been extended to include complete article information. To use this data in the actual reports, either modify the report templates yourself or contact Ides for assistance.

5.3.5   Objects

Object lookup

The object lookup dialog has been replaced by the advanced find dialog in MasterExplorer. Advanced find has been updated to be able to look up cable cores and terminals.

Category Lookup

A new and improved Category lookup dialog has been added. The lookup can be used from the object dialog, the object list as well as from various administration dialogs. The object dialog has also been modified to also display the category denomination.

Automatic designations, Letter codes

You can get designations automatically for objects. There are more support for Letter Codes and Automatic Designation. Read more about this in IEC/ISO 81346-2.

Changes

- Support Several Letter Code Sets, you can have several configuration for different plants/customers
- Support several characters "+CB"
- Supports leading zeros, "+CB001"
- CODES_LETTERCODE_SET - The letter code set used. This can be changed in the Settings Dialog.
- CODES_LETTERCODE_NUMBERS – Configuration for how many digits used on each level in the designation. This can be changed in the Settings Dialog.

5.3.6   Information Objects

Copy information object structure

A "structure" or hierarchy of information objects can now be copied and pasted under other information objects or as a new "root" structure in the same main folder or to another main folder within the same standard. Related document can also be included in the structure copy.

Inherited document permissions

When a document is related to an information object, the document will inherit document permissions from the information object. The permissions inherited are defined by the document permission template set on the information object (right click and select *Edit Permissions…*).

5.3.7   CAD

Document Information

It is now possible to view document information from CAD-Driver Ribbon. This includes Properties, Revision History, Notes and Activities.

Revit CAD-Driver

Added functionality to CAD-Driver for Revit

- Synchronization Sets are used for grouping and reusing Synchronization Settings.
- When opening a workshared Revit project from MasterExplorer a set of options are available. If it is a Central Model the user has the option to either open the Central Model or create/open a local copy of the Central Model. A few options regarding which Worksets to open are also available.

Compare Drawing

Compare Drawing now supports AutoCAD Vanilla.

Batch Functions

Batch Functions now supports all AutoCAD verticals.

AutoCAD Core Console

AutoCAD Core Console contains AutoCAD core functionality. It is now possible to use AutoCAD Core Console for specific tasks e.g. Batch Functions, Save, Print and Update Header. To use AutoCAD Core Console set the variable *DOC_USE_ACAD_CONSOLE* to *True.* It is possible to override this setting for Batch Functions. Use the *UseAcadCoreConsole* element in *LSPSettings.xml* to override the variable setting. Possible values are *Default/True/False.*

Copy with Base point

Panel Clipboard has been added to the MC Home tab to make it easier to use copy, paste commands. Use copy with basepoint instead of copy to ensure that the symbols are inserted on snap points. If snap mode is on you can use grip points to move symbols back to snap, or drag & drop the symbol.

5.3.8   Electrical & Instrumentation

FT_KEEP_CONNECTIONS

The handling of physical Cables/Wires/Links when changing their logical components has changed. The setting is replaced by two new settings:

- FT_KEEP_CONNECTIONSCAB

- FT_KEE_CONNECTIONSWIRE

The first one handle Cable objects, while the second one handle Wire and Link objects. When set to TRUE this works as before, the physical component remains untouched. When set to FALSE however, the settings function differently. Cables are kept as before, the sides are cleared and the affected Cable parts are preliminary while affected Wires and Links are deleted directly.

Automatic Designations

In assembly drawings (ELLA), it is now possible to specify the location designation for the area inside the symbol. When inserting or moving a symbol to a point in the drawing with a pre-defined location designation the symbols designation is automatically updated.

6   Known Limitations

Changes do not take effect immediately

Not all changes made in the Administration dialogs will take effect immediately, so after changing something in the administration dialogs it is advisable to restart the MasterExplorer application to ensure that the changes will take effect.

Grid Limitations (32-bit only)

When loading data into the grid the memory limitation in the product is around 1 GB. That means the document list can fetch approx. 120.000 rows and the Object List approx. 110.000 rows.

We will investigate this further to solve this limitation.

Update cabledef symbols

Update from database does not update cable codes if you have both codes and an article on the connection. The codes will not be updated until you save the drawing.

Word and Excel Reports

If you have both Word and Excel reports in a single project, avoid using the same filename (i.e. 1.DOC and 1.XLS), this may cause problems with the xml-file used for generating the data.

Article Summary Reports

Does not work for Word and Excel reports, the formatting of the summary are made in the crystal report.
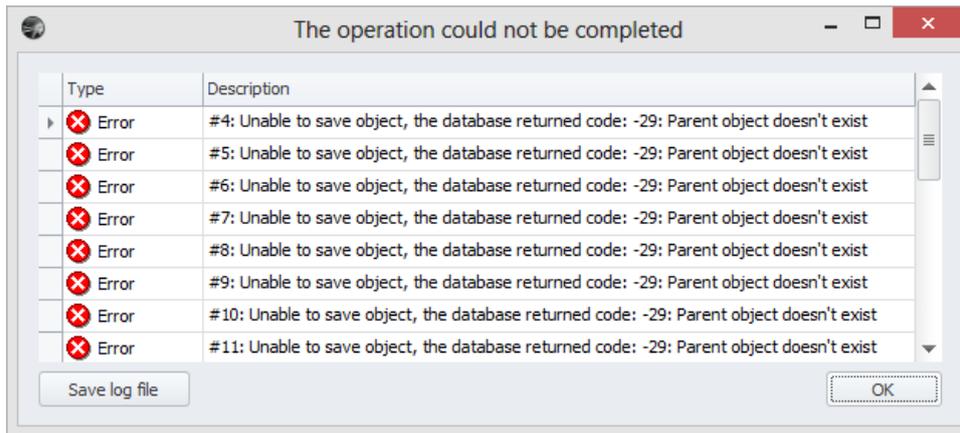
Preview of MS Office documents on a 64bit system

To be able to dock an instance of Word or Excel in the preview tab this application must be 64bit when the MasterExplorer is running as a 64bit application. However, MS Office will by default install the 32bit version even on 64bit systems to improve backwards compatibility.

This means that provided we have a standard installation of Office and the Explorer on a 64bit system, it is not possible to display Office documents in the preview window. They will instead open in a separate Word or Excel application window.

When imported objects are related to each other the object import may produce errors

When objects are related to each other via object-object relations or structurally, the following messages may appear when importing. In order to solve the errors, please import the objects again until the messages no longer appear. Also, make sure that all objects can be imported (e.g. locked in another project) before importing.

You may also get errors complaining about a missing "CETLTER_RETDOOB_FK" relation. In order to solve this, import the documents and objects until everything is marked as imported. Then re-import the connections.

Report Filer and Report Format in Briefcase

The Briefcase function do not handle report filter and report format. The report data is also not included.