

## **New Features and Enhancements in M-Files 5.0**

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# 1. Microsoft Office and AutoCAD integration

## 1.1 M-Files functions in Microsoft Office and AutoCAD/AutoCAD LT

The new M-Files functions make it easier to work with documents. These functions can be found easily in the M-Files menu, which can be found in an application's top-level menu in the same manner as the application's normal menus (Add, Edit, etc.). Therefore, M-Files is displayed as an integrated part of the application.

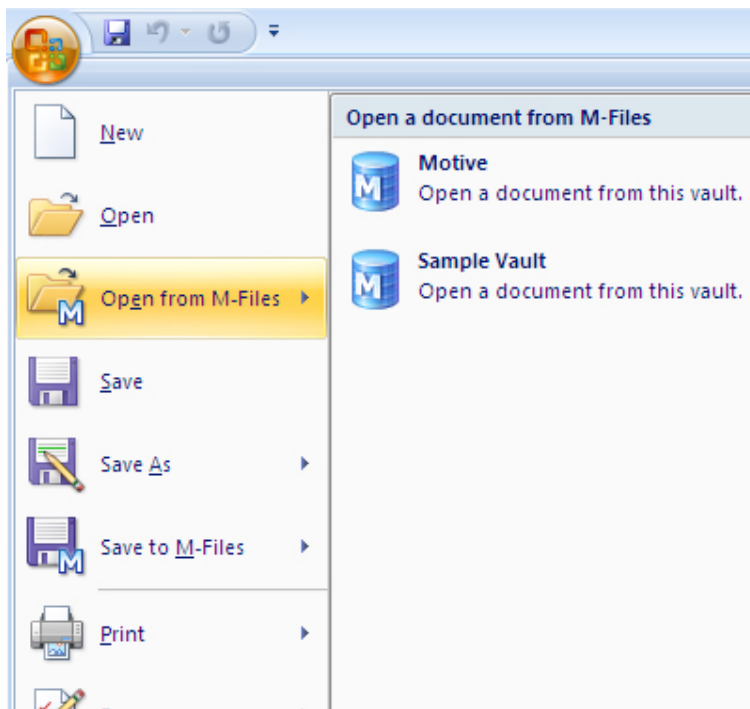
Documents stored in M-Files can be edited in external software, in the same way as any document stored on your computer. Also, M-Files offers access to its functions in the Microsoft Office and AutoCAD softwares.

Utilizing M-Files through Microsoft Office and AutoCAD softwares is easy:

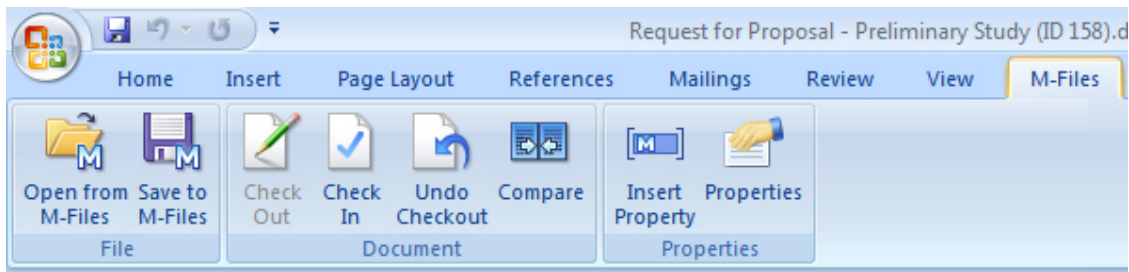
- Documents can be opened from and stored into M-Files directly.
- The M-Files menu offers quick and easy access.
- Document metadata can be edited directly in Microsoft Word, Microsoft Excel and AutoCAD.
- Document metadata stored in M-Files can be partially included in document contents.
- E-mail messages and attachments can be stored directly into M-Files in various file formats.

### 1.1.1 Functions in Word and Excel

The M-Files functions accessible directly in Word and Excel make it easy to work with documents. They can be accessed from the *File menu*, the *Office drop-down menu*, or the *M-Files menu*. The menus may look a little different, depending on the version of Word or Excel in use.



The *File* and *Office* menus offer access to functions allowing the opening of documents from M-Files or storing them into M-Files.



All M-Files functions are available through the M-Files menu.

The M-Files functions presented below are available in Microsoft Word and Excel versions 2002, 2003, and 2007.

### *Open from M-Files*

You can open a document for reading or editing directly from the document vault. If you are using several document vaults, use the *Open from M-Files* function to open the document vault you want. This function is also available from the *File and Office menus*.

### *Save to M-Files*

*Save to M-Files* is the handiest way to save a new document to M-Files. When you save to M-Files directly, the document card opens for editing just as it does when you create a new document in M-Files Client. If you are using several document vaults, choose the target document vault in the *Save to M-Files* submenu. This function is also available on the *File and Office menus*.

### *Check Out*

The *Check Out* function checks out for editing a document that has been opened as read-only. This function converts the document from read-only mode to edit mode. If the document is in read-only mode and has been edited, and the *Check Out* function is performed, all changes are lost.

### *Check In*

The *Check In* function closes the current document and checks it in.

### *Undo Checkout*

The *Undo Checkout* function closes the current document and cancels its checkout without saving changes. If the *Undo Checkout* function is performed for a document that has been edited, all changes made after the document was checked out will be lost. Note: *Undo Checkout* cannot be used on one file of a multi-file document. In this case, the function is not available in the M-Files menu.

### *Compare*

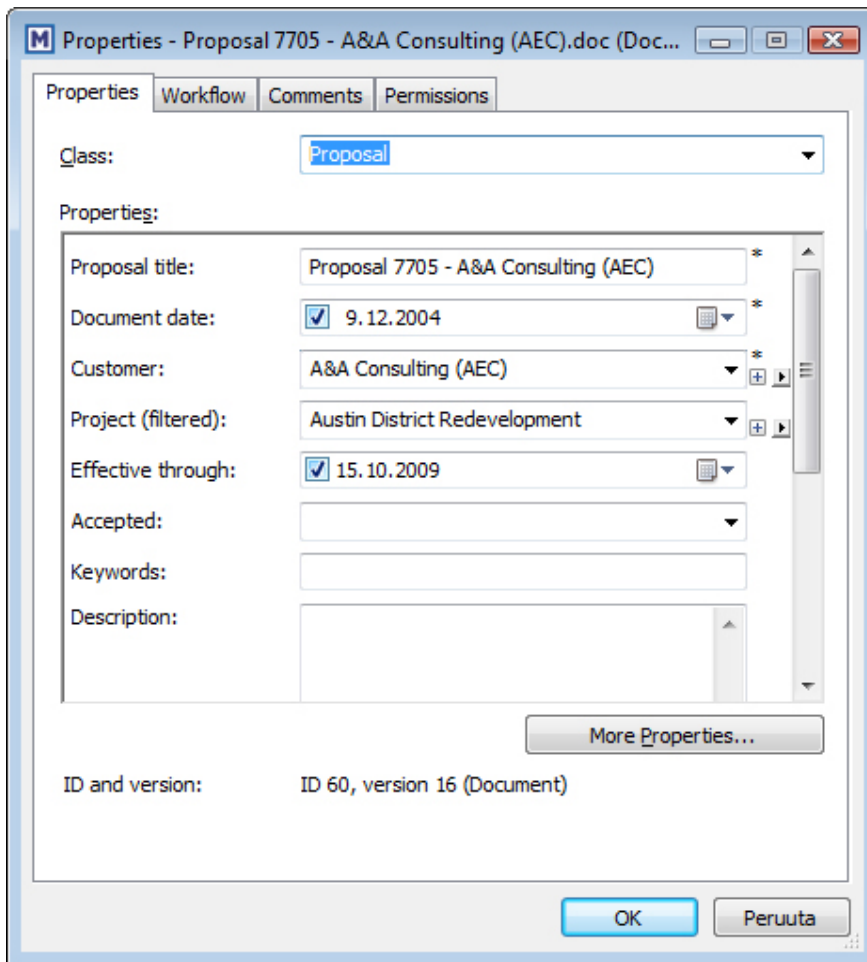
With the *Compare* function the content of the current document can be compared to an earlier version of the same document. The *Compare* function opens the document version history, which allows you to select the earlier version to compare the current one to. The results are displayed with the changes visible.

### *Insert Property*

For more information, refer to Section 1.2.

### *Properties*

The document properties defined in M-Files can be displayed also in Word and Excel by means of the *Properties* function available from the M-Files menu. The document properties can be edited and saved as in M-Files.



The document card opened by means of the Properties function is the same as the document card in M-Files.

### 1.1.2 Functions in Outlook

E-mail messages and attachments can easily be saved from Outlook directly into M-Files. The following M-Files functions are available in Microsoft Outlook 2002, 2003 and 2007.

Outlook offers the following save options for *Save to M-Files*:

#### *Outlook message (\*.msg)*

The e-mail message and any attachments are stored in M-Files in MSG format. The stored file and its attachments open as a message in Outlook.

#### *Outlook message, separate attachments (\*.msg, \*.\*)*

The e-mail message is stored as a multi-file document: message text is stored in MSG format and the attachments in their native file formats. The stored MSG file opens as a message in Outlook. The attachments open in the applications associated with the file format.

#### *Text only (\*.txt)*

The e-mail message is stored as a text file. The stored file opens in, e.g., Notepad. Attachments are not saved.

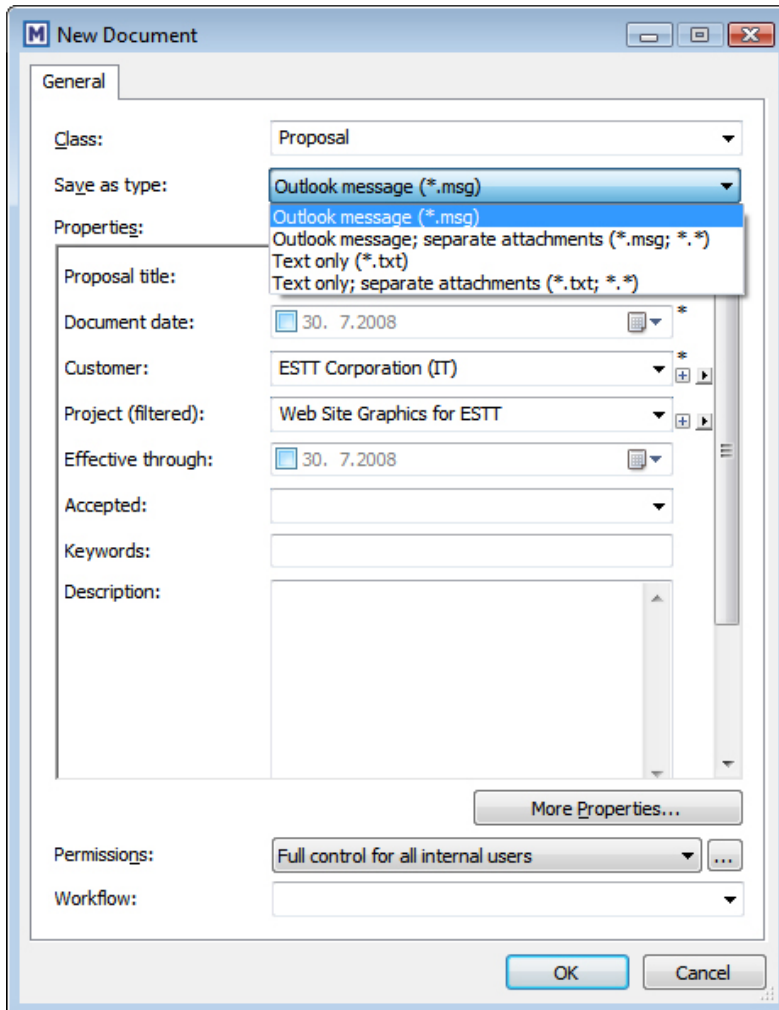
#### *Text only, separate attachments (\*.txt, \*.\*)*

The e-mail message is stored as a multi-file document: message text is stored as plain text and the attachments in their native file formats. The attachments open in the applications associated with the file format.

## Save Attachments to M-Files

The *Save Attachments to M-Files* function stores only e-mail attachments. The attachments are stored in their native file formats. If an e-mail message contains several files as attachments, these files will be saved as a multi-file document. The attachments open in the applications associated with the file format.

The default setting for saving e-mail messages is *Check in immediately*.



Name	Size	Date Modified
Outlook message (*.msg).msg	156 KB	19.8.2008 16:10
Outlook message, separate attachments (*.msg, *.*)		19.8.2008 16:10
01.jpg	124 KB	12.8.2008 13:25
Message.msg	44 KB	19.8.2008 16:10
Text only (*.txt).txt	1 KB	19.8.2008 16:01
Text only, separate attachments (*.txt, *.*)		19.8.2008 16:07
01.jpg	124 KB	12.8.2008 13:25
Message.txt	1 KB	19.8.2008 16:07

*E-mail messages can be saved to M-Files in many formats.*

### 1.1.3 Functions in AutoCAD and AutoCAD LT

The M-Files functions accessible directly in AutoCAD and AutoCAD LT make it easy to work with CAD drawings. You can access the functions from the *File menu* or the *M-Files menu*. The menus may look a little different, depending on the version of AutoCAD or AutoCAD LT in use.

The following M-Files functions are available in Autodesk AutoCAD and AutoCAD LT versions 2004, 2005, 2006, 2007, 2008 and 2009. The functions are available also in discipline-specific products based on these AutoCAD versions, such as AutoCAD Architecture, AutoCAD Civil 3D, AutoCAD Map 3D and AutoCAD MEP.

M-Files functions in AutoCAD and AutoCAD LT are *Open from M-Files*, *Save to M-Files*, *Check Out*, *Check In*, *Undo Checkout*, (and *Insert Field*).

For more information about these functions, see section Functions in Word and Excel (1.1.1).

#### *Insert Field*

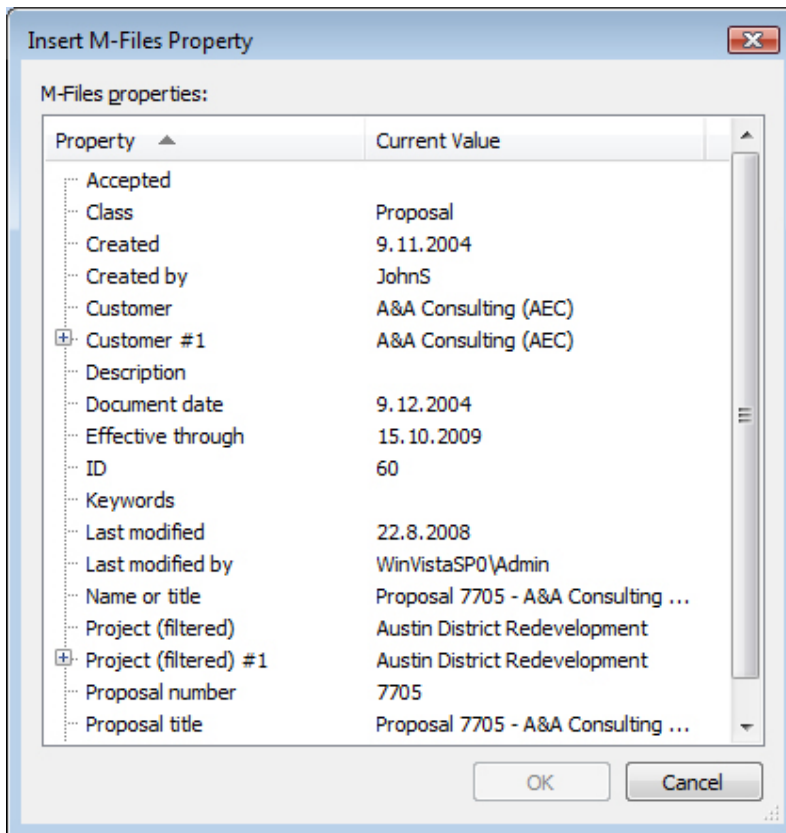
With the *Insert field* function, you can add M-Files metadata to drawings along with AutoCAD fields. The M-Files metadata fields are located in the *M-Files field category* in the *Field* selection dialog in AutoCAD.

For more information, see next Section 1.2.

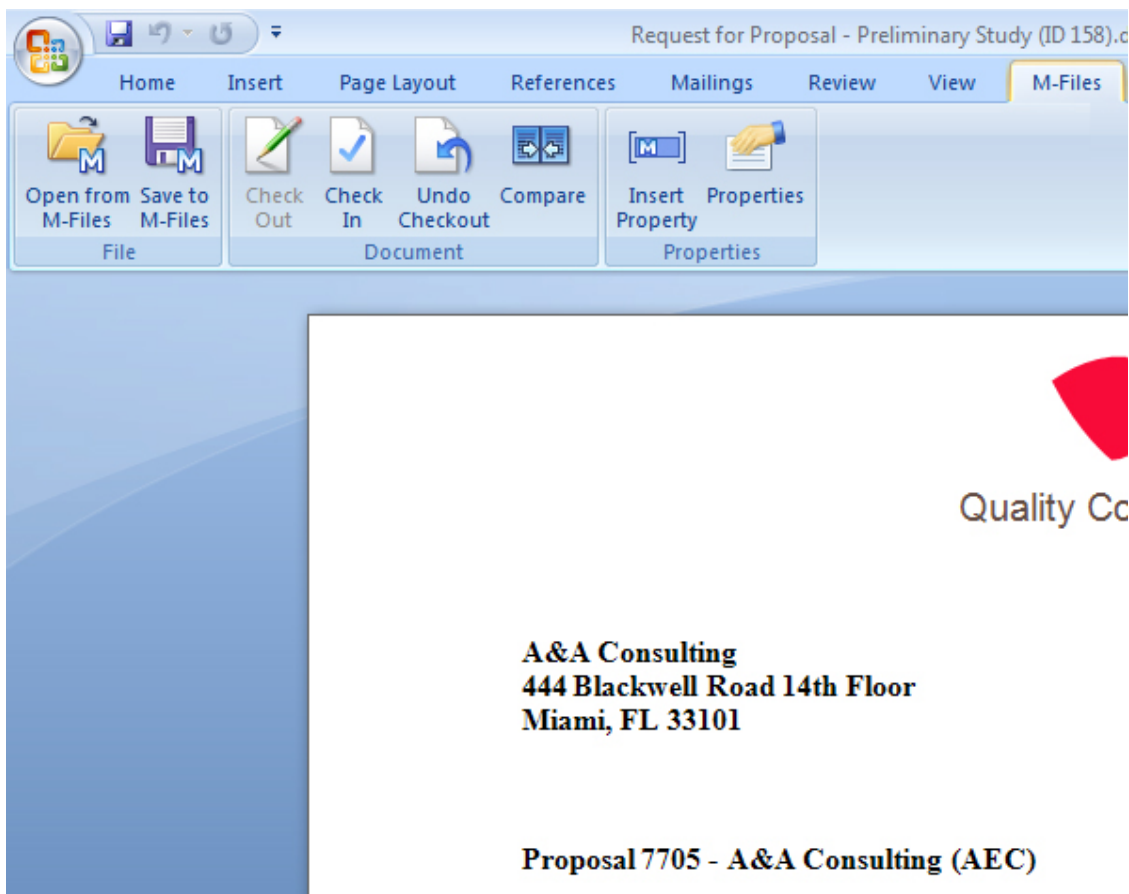
## 1.2 Automatic inclusion of metadata in a document (Word and Excel)

Document metadata stored in M-Files can be included in document contents by using the *Insert Property* function.

You can set up text fields or cells in Word and Excel in which the selected *M-Files properties* are filled in automatically. For example, you can select a customer name and address from the document properties and insert them as the recipient's contact information in a proposal. Other *M-Files properties* can be added in a similar way. For example, you might insert the name of your proposal document as the heading of the cover letter or add product information to the proposal. Document metadata can also be edited by using the *Properties function* when the document is processed in Word or Excel.



*Insert any M-Files properties you want into the document with the Insert Property function.*



*The Insert Property function automatically inserts selected document properties into the document content.*



### *Utilizing Insert Property function with document templates*

The *Insert Property* function can be used to conveniently create document templates. Text fields or cells defined in the template are automatically populated with the selected properties when a new document is created. For example, the *Proposal template* can be set up to include fields for the properties *Customer*, *Contact*, *Address* and *Country*. When a new proposal is created using the template, the customer information in the metadata is automatically inserted into the fields. This means that address information no longer has to be separately copied from the customer contact information.

An existing document can be defined as a document template in M-Files by adding the property *Is template* in the document card. The *Property Definition (Permissions)* in the M-Files Server Administrator is used to set permission to define a document as a template.

If a property does not have a value (*Current value is empty*), the text fields or cells in the template may also be left empty. When a user creates a new document using the template, these text fields and cells are automatically populated with *current property values*.

An M-Files property inserted into a Word document is displayed as a text field, which by default turns gray when clicked. In an Excel document, an M-Files property is displayed as a cell formula.

Note, however, that inserting metadata in a document does not in itself require the document to be defined as a template.

## 2. Automatic values of properties

An **automatic value** can be set for a property. This means that, for example, invoices can be consecutively numbered. An automatic value can also contain text, in which case it is a combination of other properties. For example, to create proposal headings in a set format such as *Class/Product/Customer*, these properties can be used to automatically create it, and which would return, e.g., (*Proposal/Mach20A/ESTT Corporation*).

Automatic values increased utilization of document and object metadata in storing and searching for information. In addition, using automatic values makes the naming of documents and objects more consistent and reduces the need for repeated data entries.

Automatic values are especially useful for naming objects (4.1) and in automatically including metadata in document content (1.2).

### 2.1 Automatic numbers and values

A property can have an automatic number or value. An **automatic number** is calculated once and does not change. Such automatic numbering is useful for, e.g., various company internal processes and record-keeping.

An automatic value can contain other properties. It usually *concatenates selected properties*. For example, a document name (automatic value) can be defined as *Class (Customer)* which would return, e.g., *Proposal (ESTT OY)*. The automatic value changes when the object is edited. For example, if the automatic value is created using the customer name (*Proposal (Customer A)*), the automatic value changes when another customer is selected (*Proposal (Customer B)*).

The screenshot shows a dialog box titled "Property Definition Properties - New Property Definition" with three tabs: "General", "Automatic Values", and "Permissions". The "Automatic Values" tab is selected. The dialog contains the following elements:

- Text: "You can specify an automatic value for this property."
- Text: "An automatic number is calculated once and then remains unchanged. Other types of automatic values are recalculated each time the object is modified."
- Radio button selection:
  - ☐ No automatic value
  - ☒ Simple automatic numbering
    - Increment:
  - ☐ Customized automatic numbering (VBScript)
    - Edit Code...
  - ☐ Simple concatenating of properties
    - 
    - ?
  - ☐ Calculated value (VBScript)
    - Edit Code...
- Last value used:  ☒ Change
- Calculation order:  (from smallest to largest)
- Buttons: OK, Cancel, Apply, Help

This property has consecutive numbering that increments by one (Increment: 1). The Last value used is set as 1000. Thus, the next object to use this property will be numbered as 1001. The calculation order value is 10.

### Simple automatic numbering

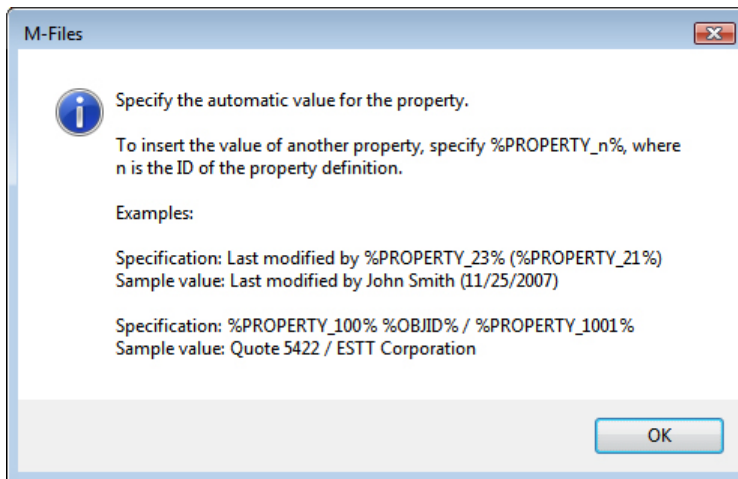
Returns an incrementing numerical value. The increment can also be specified (*Increment*). The default is one (1).

### Customized automatic numbering (VBScript)

Returns an *automatic number* that can contain letters and/or numbers. The creation of a customized automatic number is specified in more detail by using the M-Files API and VBScript common properties. For more information on defining calculated values, refer to M-Files User's Guide.

### Simple concatenating of properties

Conjoins selected properties (e.g., Proposal/Device/Customer). Any characters or text can be inserted between the selected properties. For example: *Proposal: Customer (Project)* or *Proposal, Customer, Project*.



Placeholders can be used by bracketing them with % characters. This creates an automatic value by conjoining other properties.

Placeholder	Selitys
OBJID	Document or object ID.
OBJVER	Document or object version.
PROPERTY_<id>	Value of the selected object property. Replace <id> with the property ID.

### Calculated value (VBScript)

The creation of an automatic value can be specified in more detail by using the M-Files API and VBScript common properties. A *calculated value* is defined for the property with this function. For more information on defining calculated values, refer to M-Files User's Guide.

### Last value used

The starting value for consecutive numbering or values. The default is zero (0). The value can be changed; for example, consecutive numbering can start at 3000.

## 2.2 Calculation order

*Calculation order* determines the order in which automatic values are calculated (from smallest to greatest). This is significant when several automatic values are used and their combinations form new automatic values.

For example, calculation order is crucial if the name of an object is an automatic property value consisting of two other automatic values. These two automatic values are calculated first and their combined value afterwards.

The values themselves make no difference other than that the calculation order proceeds from smallest to greatest. The calculation order values for different properties can be, e.g., 10, 12, 17 and 20. Then the property with the calculation order number of 10 is calculated first, followed by the property with the calculation order number 12, etc.

## 2.3 Recalculate

The *Recalculate* function is available in the task area (or by right-clicking) when a property with an automatic value is selected.

### *Recalculate Empty Values*

Calculates automatic values for properties that have not been calculated yet. This is the default for calculating automatic values. Changes to settings only apply to new values. For example, if you edit the previously used value, only new objects will have the new value. Old values are preserved; that is, once defined, a value does not change.

### *Recalculate All Values*

Recalculates the automatic values of all properties. *Recalculate All Values* thus also recalculates previously defined values. For example, if consecutive numbering is used and the Last value used is changed, this function rennumbers all existing objects.

## 2.4 Naming a template without using automatic values

Document templates work differently when automatic values are used. All properties in the document template metadata work without the calculation of an automatic value. Thus in templates, automatic property values work as if they were not automatic. Their values can be defined normally and the server does not calculate an automatic value for the property.

For example, objects in the Proposal class may use automatic values in their titles (such as *Proposal <number> - <customer name>*). However, it makes sense to name the Proposal class templates as templates; titles using automatic properties only make sense for actual proposals, not templates. Thus, the template might be called *Proposal Template* while the actual proposal documents created using the template will have names formulated with automatic values, such as *Proposal 35 - ESTT*.

### 3. Naming an object according to a selected property

Any property of the class can be *set as the name of the object*; that is, the property is selected as the *name property* for the objects of this class. Then the name of the object does not have to be entered separately; instead, a certain property can be set up to always be the name or “title” of the object in the class in question. This makes the naming of objects in a class more consistent.

This property is very useful for working with *automatic values*. The automatic value of the property may at the same time be the name of the proposal document (*Proposal/ESTT*). Note: templates are named without automatic values.

The *Update Names* function can be used to update the names of all existing objects of the class to conform to the new definition.

Class Properties - Proposal

General | Templates | Permissions | Default Permissions for Objects

Name: Proposal

Object type: Document

Properties:

Name	Data Type	Required
Proposal title *	Text	<input checked="" type="checkbox"/>
Document date	Date	<input checked="" type="checkbox"/>
Customer	Choose from list 'Customers' (m...	<input checked="" type="checkbox"/>
Project (filtered)	Choose from list 'Projects' (multi...	<input type="checkbox"/>
Effective through	Date	<input type="checkbox"/>
Accepted	Boolean (yes/no)	<input type="checkbox"/>
Keywords	Text	<input type="checkbox"/>
Description	Text (multi-line)	<input type="checkbox"/>
Proposal number	Number (integer)	<input type="checkbox"/>

Add... Remove Set As Name ↑ ↓

The asterisk (\*) indicates the property that is used as the object name.

Basic properties:  
Created; Created by; Last modified; Last modified by

Default workflow for new objects:

OK Peruuta Käytä Ohje

The *Set up Name* function can be used to change the name property of the class.

## 4. Views and searches

### 4.1 Views defined through relationships

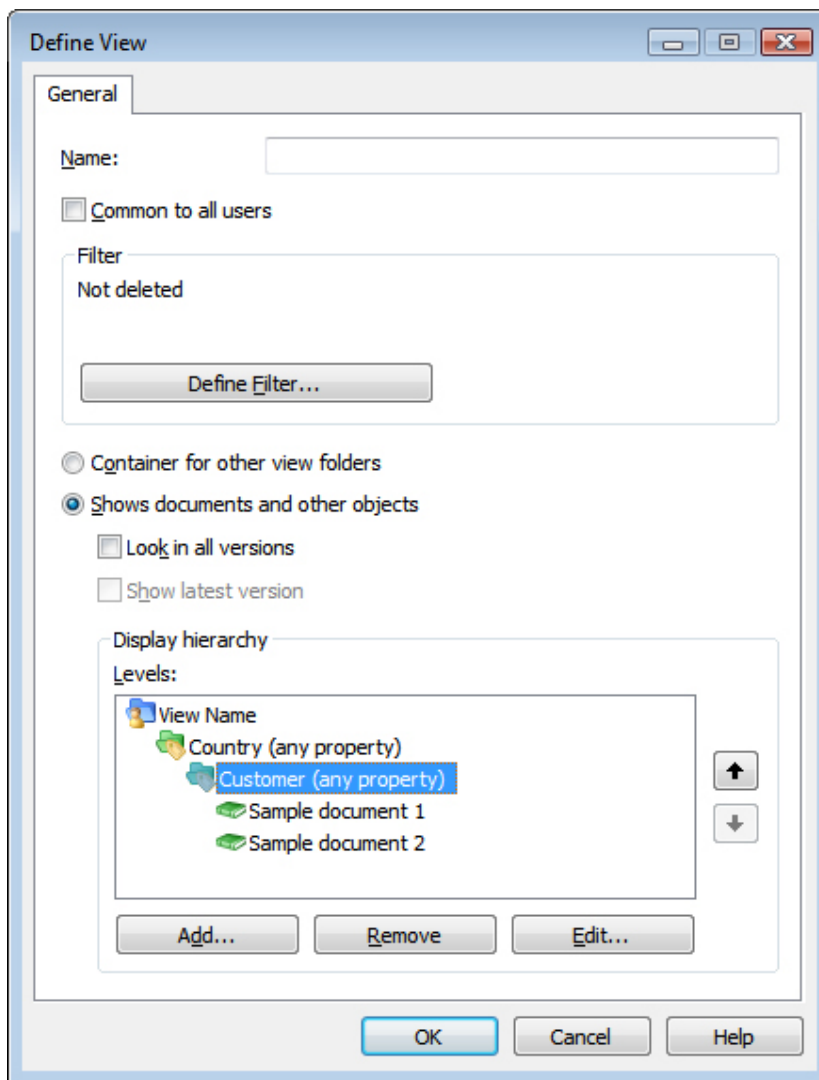
Views can also be created indirectly by using *relationships*: the document's metadata need not include all of the properties in order for the document to be included in the desired view. Instead, the properties may be the properties of other objects that have a relationship with the document in question (such as project or customer properties).

#### *Divide Folders*

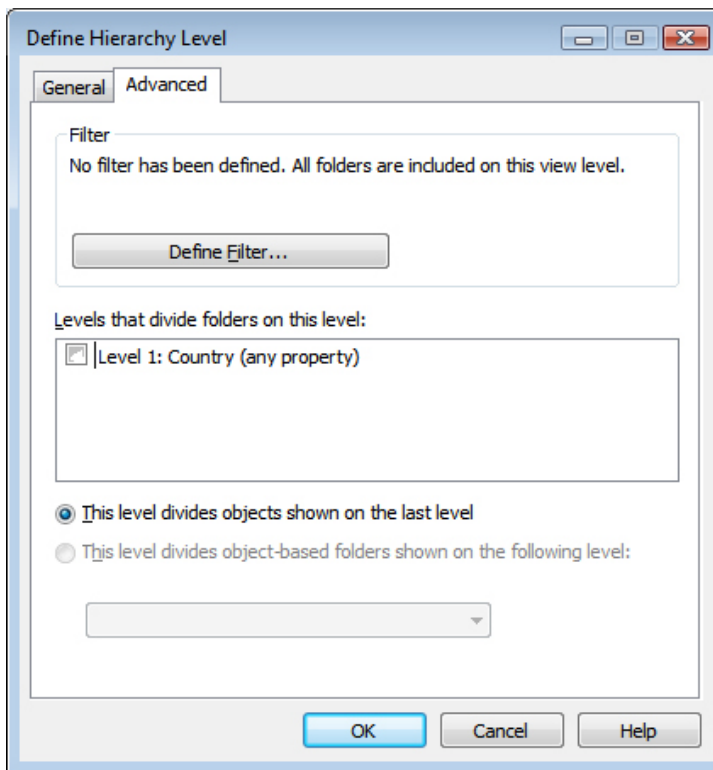
The default option for defining hierarchy levels is that the properties used to create the filtered view are defined for all objects displayed. Views can also be created using *property relationships*: the object itself does not have to include all of the properties defined for the hierarchy level in order to be included in the filtered view.

Both properties and relationships can be used to create views *by dividing folders*. For example, viewing documents by *Country and Customer* is possible without the property *Country* being defined in the document's metadata if the property is defined for a *customer* that has a relationship with the document. As a result, documents that are missing property definitions are displayed through folder dividing. When folder dividing is used to define views, the same properties do not have to be defined many times for different objects.

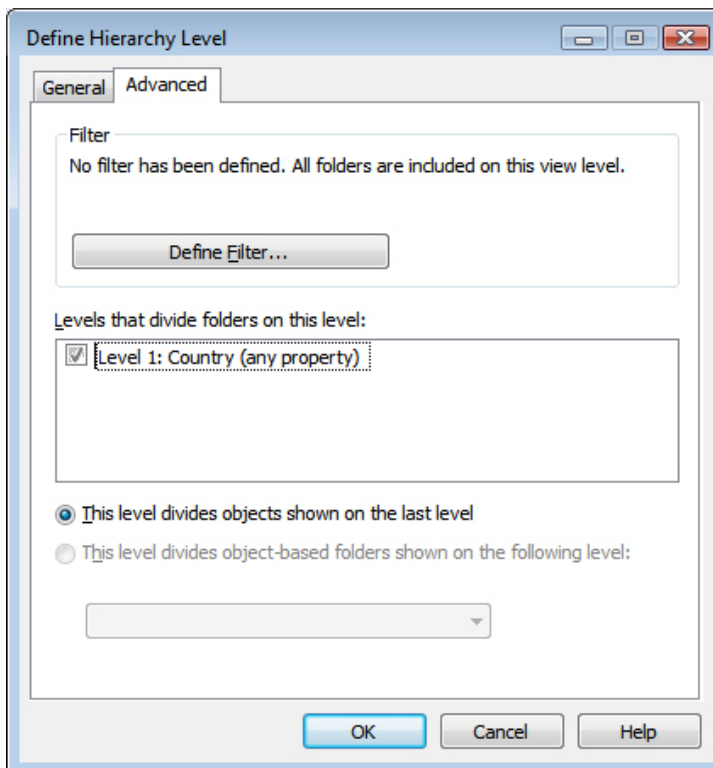
Advanced hierarchy level settings are used to select whether or not to create a view also through relationships. Use the *Levels that divide folders on this level* function to specify the level (property) that the object to be included in the view does not need to have specified. However, the property in question must be defined by another object in a relationship with the object for it to be filtered into the view.



*This view shows documents by country and by customer. The Advanced properties of the Customer hierarchy level specify whether to create the view according to the default setting or by dividing folders.*



*In this view, the metadata of the document itself determines both the Customer and Country properties. This is the default for defining hierarchy levels.*



*The metadata of the document in this view has the Customer property defined, and the metadata of the customer in turn has the Country property defined. The metadata of the document does not need to include the Country property in order for it to be displayed in the view.*



#### 4.1.1 Redefinition of search results through indirect views

This function can also be utilized with search results. For example, you may wish to find projects by country but there is no *Country* property defined for a project and, therefore, that project cannot be directly returned as a result when the country in question is the search criterion. However, if the *Customer* property has been defined for the project and the *Country* property, in turn, has been defined for this property, the projects can be retrieved by redefining the search result.

The search can also be widened by using the *Divide By* function to create a *search result view* using relationships. This allows more objects to be retrieved than the first search did.

When selecting the hierarchy level for the *search results view*, choose whether the view should be recreated also on the basis of properties defined through relationships. This is done by selecting *Levels with divide folders on this level* on the *Advanced* tab of the *Divide By/Add Folder Level* function.

## 4.2 Browsing relationships associated with an object, via shortcuts

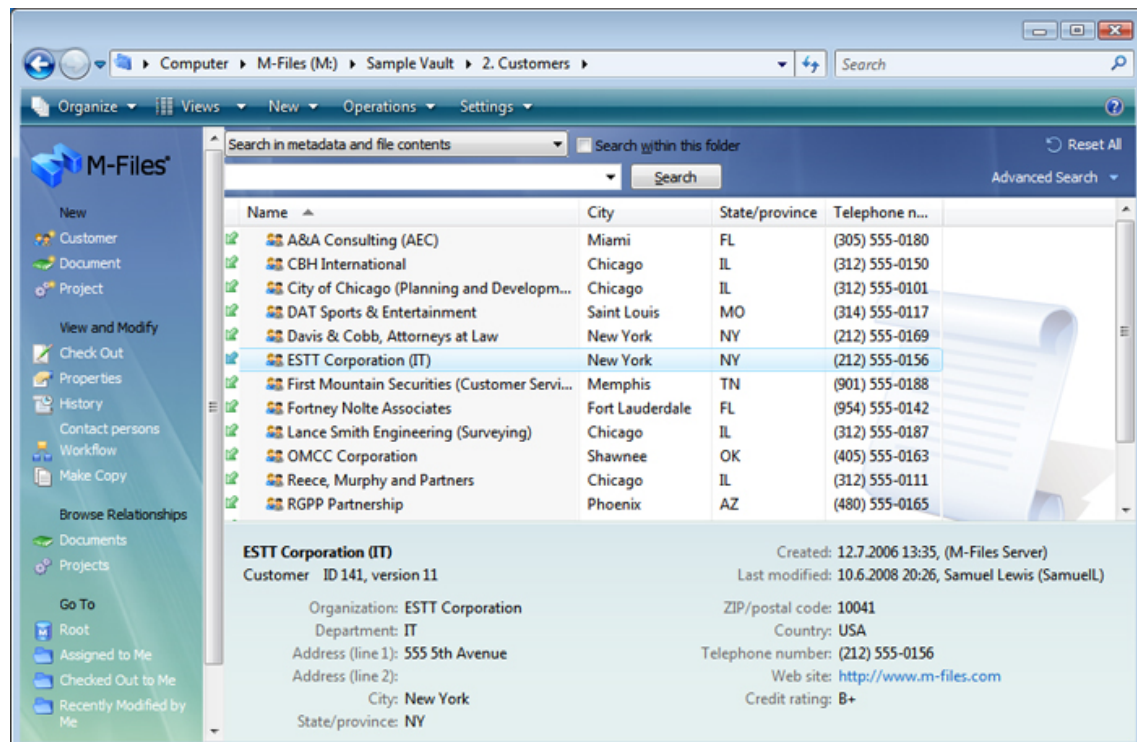
Objects frequently have relationships with other objects; for example, a document is often related to a project or customer. Relationships are defined separately for each object.

It is now easy to browse these objects related to other objects, by using the new shortcuts located in the task area. For example, if the object type *Projects* is selected for use with the *Customer* object type, selecting the customer in M-Files Client and using the *Browse Relationships* function displays a list of all projects attached to the customer in question. Shortcuts from objects to other objects enhance accessibility and make searching for information linked with other information faster.

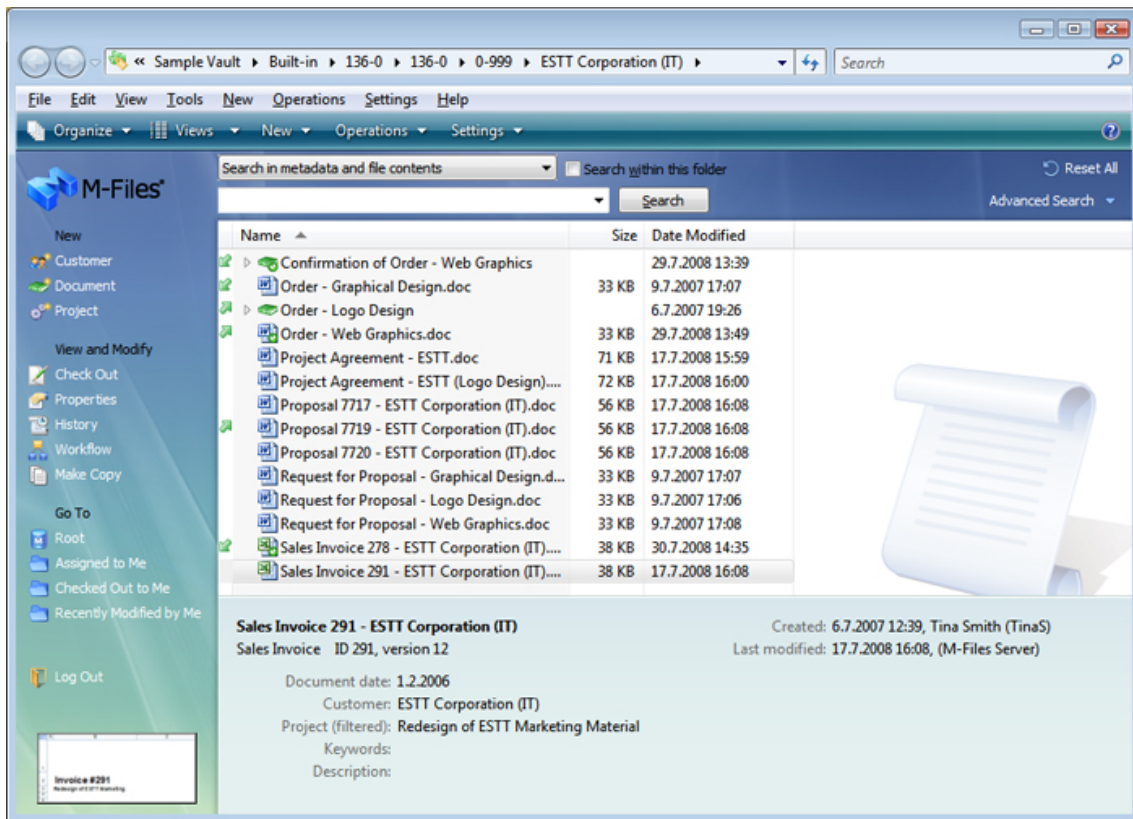
### *Browse Relationships*

The objects that have a relationship with the current object can be viewed by using the *Browse Relationships* function. Related objects can be browsed by object type. With the *Browse Relationships* function, you can select the type of related object you want to browse. Selecting the object type displays a list of all objects of the selected type that are related to the selected object. For example, for objects of the type *Customer*, the *Browse Relationships/Projects* function can be used to list projects that the customer in question is related to.

The *Browse Relationships* function can be accessed also from the Operations menu functions.



The *Browse Relationships* function can be accessed easily from the task area.



All documents related to the Customer object “ESTT Corporation” selected in the previous image have been retrieved using the Browse Relationships function.

#### The types of objects that users can browse for objects of this type

The relationships between object types, that is, the object types included in each object type, are defined in M-Files Server Administrator. With the function *Object types that users can browse for objects of this type*, the objects available for use with the selected object type can be specified. If an object type has not been defined as a browsable object type for a particular object type, the Browse Relationship function will not display it even if the two selected objects are related.

### 4.3 Other new features

#### 4.3.1 Listing of time-related folders according to the actual date and time

Time-related folders are listed according to how dates work in the real world, not in alphabetical or numeric order. For example, the list order may be July 2006, March 2007, April 2007, August 2007, etc. This means that virtual folders are listed according to their actual timestamp, not by their initial letter. Similarly, also folders based on numerical statement of time are listed according to the real-world time, not in numeric order.

The Boolean search folders are “Yes” and “No.”

#### 4.3.2 Dividing search results automatically according to their properties

When there are more than 500 results, M-Files asks whether the search results should be divided by initial letter or on the basis of another property.

M-Files now offers this option automatically. Previously it offered to group the list of search results only by initial letter. The user had to perform any categorization by another property separately with the *Divide By* function.

#### 4.3.3 Grouping by initial letter

Grouping by initial letter divides the search results or the contents of the virtual folder into groups by initial letter (A–D, E–H...). Within the initial letter group, further division is possible, by initial letter.

#### 4.3.4 Look in different inflected forms of the words in Quick Search

To search for a particular word form, remove the selection from *Look in different inflected forms of the words in Quick Search* in the advanced search options. This option is selected by default. When you do this to search for, say, the word corporation, the search results only include objects with the exact word, and not corporate, corporated, etc.

#### 4.3.5 Additional functions

- When you specify a filter, you can decide whether the filter also shows the deleted values or objects (*Include deleted items*). Also the option *Clear Filter* has been added.
- If no objects match your search, *No objects match your search* is displayed in the search field (was previously empty). Also, the text *This folder is empty* will be displayed when a virtual or traditional folder is empty.
- When you have not specified a value indicating the grouping rule for the item, these items are separated into a virtual folder named (*empty*). The folder was previously (–).

The text items in the previously mentioned fields have been localized.

## 5. Common notifications rules

By using *common notification rules*, you can order e-mail notifications based on objects saved in M-Files to be sent to several users or user groups. In this case, a notification concerning changes in, for example, the price list will be sent automatically to the entire sales department. Previously, the user was able to specify only notifications for him- or herself.

Either the *Full control of vault* or *Manage common views and notification rules* must be specified for the user in the document vault in order for him or her to be able to specify the common notification rules for several users or user groups. This permission is specified in M-Files Server Administrator (User Properties). When the user has a property to specify common notification rules, the actual notification settings are made from M-Files Client Settings. Functions:

*Private rule. Applies to the current user only.*

If you want a notification message to be sent only to you, select *Private rule*.

*Common rule. Applies to the specified recipients only.*

If you want a notification message to be sent to several selected recipients, select *Common rule*.

### Recipients

Specify the users or user groups who will receive notifications on the basis of this rule.

Notification Rule Properties - New Notification Rule

General

Name: Object Modified

Message delivery: A separate notification message for each event

☒ Private rule. Applies to the current user only.

☐ Common rule. Applies to the specified recipients only.

Recipients...

Filter

Not deleted

Define Filter...

Event subscriptions

Event	Notify
New document or other object	<input type="checkbox"/>
Document or other object changed	<input checked="" type="checkbox"/>
The state of a document or other object changed	<input type="checkbox"/>
Document or other object matches the conditions of the filter	<input type="checkbox"/>
Checkout	<input type="checkbox"/>
Checkin	<input type="checkbox"/>
Undo checkout	<input type="checkbox"/>
Rollback	<input type="checkbox"/>
File downloaded	<input type="checkbox"/>
Document or other object deleted	<input type="checkbox"/>
Document or other object destroyed	<input type="checkbox"/>
One version of a document or other object destroyed	<input type="checkbox"/>

☐ Exclude notifications of events caused by the current user

OK Cancel Help

You can select the *Private rule* or the *Common rule* for notifications.

## 6. Usability improvements

### 6.1 Using a document template

When a document template is double-clicked in M-Files, it launches a new document based on the template in question. Templates are class-specific. A class may include several templates, and the same template may be in use in several classes.

If you want to modify the template itself, you can do so by using the *Open* function.

M-Files also remembers the previously used template (when several templates have been specified for a class); that is, M-Files offers the most recently used template as the primary template in the class in question.

Definition of a document as a template is performed in the document metadata in M-Files with the *Is Template* option. The *Is Template* Property Definition Permissions in the M-Files Server Administration interface is used to set permission to define a document as a template (previously defined in *User Properties*).

### 6.2 Property area

The properties of the object are displayed at the bottom of the Explore M-Files user interface, in the property area. Now it is easy to copy this information with the *Copy* function (by right-clicking).

You can also move directly to the properties of an object that has a relationship with the object in question from the property area. The object is displayed as a link in the property area, and you can access the object's metadata by clicking the link. For example, this way you can quickly access the customer information linked to this document.

### 6.3 Hierarchical relationships between value lists and object types

The object type may also include a value list as a "subtype." Previously an object type could have only another object type as a subtype. For example, *Project* can be an object type, and *Stage* is a value list, so *Project* is the owner of the *Stage* list.

A value list may also include an object type as a "sublist." Previously a value list could have only another value list as a sublist. For example, *Product group* can be a value list, and *Product* is an object type, so *Product group* is the owner of the *Product* type.

### 6.4 Converting a value list to an object type

A value list can be converted to an object type with the *Convert to Object Type* function. Note that an object type cannot be changed back into a value list. Furthermore, you cannot define an internal hierarchy for an object type.

### 6.5 Clear filter

It is easy to clear the filter with the *Clear Filter* function, when you want to define a new filter.

### 6.6 Properties: add a new value or search for the correct value

If you cannot find the desired value from the value list, you can type a new value directly in the metadata field and accept it as a value in the value list. Previously, this required use of the *Add new value* function.

If there are more than 5,000 values in the value list, you can type the desired value directly in the metadata field and accept it. You no longer need to do this through a filter as a search.

### 6.7 Scalable properties dialog box

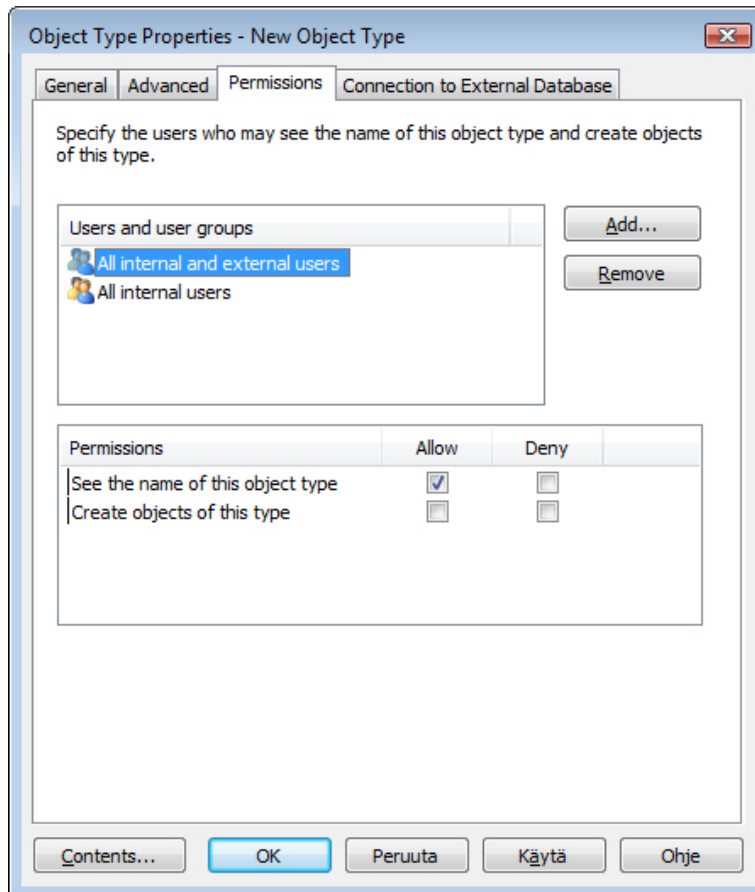
The *Properties* dialog box of an object is scalable. This makes using metadata easier, when several properties have been defined for an object.

## 7. Permissions

User-specific rights and permissions can be specified for various functions and properties. The rights apply to the adding and editing of objects and properties. Permissions can also be used to prevent or allow the visibility of various users and properties to desired users.

It is possible to specify user- or user-group-specific edit permission with the *new permission settings*. The permissions can be used to restrict the visibility of various data within the company: for example, the social security number of an employee can be set to be visible only for users belonging to the personnel administration user group.

All of the rights and permissions mentioned below are specified in M-Files Server Administrator.



For example, you can configure different permissions for an object type.

### 7.1 Users, User Groups and Named Access Control Lists

In the properties for users, user groups, or named access control lists, you can specify who will see the user / user group / named access control list in question. This way, one or more users can be made invisible in M-Files to certain users.

Note: the System administrator and all users with full control of the document vault in question always see all users.

Note: In M-Files 5.0, now external users as well can create documents for M-Files.

- Settings: *Permissions/Specify the users who may see this...*

### 7.2 Objects Types

In the object type properties, you can specify who has access for viewing this object type and indicate who can create objects of this type.

If the user does not have permission to see the name of the object type, it is not available for selection in M-Files Client (for example, when you are creating a new object or search). Even if the object type name is hidden, the user can see the objects themselves in views or search results, for example.

If the user cannot see the object type name, the user also does not have permission to create objects of this type. However, the user may have permission to see the name without having permission to create new objects.

Settings:

- *General/ Users can create objects of this type* (this must be selected in order to enable the creation of new objects)
- *Settings/Specify the users who may see the name of this object type and create objects of this type*

Note: As in M-Files 4.0, a object-specific permission can be set for a single object in M-Files Client. Similarly, also default permissions for objects can be set object-specifically. These permissions are set in the Object type **content** permissions in M-Files Server Administrator.

### 7.3 Value Lists

In the **value list** properties, you can specify who has access for viewing this value list and who can add values belonging to this value list.

If the user does not have permission to see the name of the value list, it is not available for selection in M-Files (for example, when you are creating a new search).

If the user cannot see the value list, the user also does not have permission to create items for it. However, the user may have permission to see the list without having the permission to create new items.

If desired, you can also specify default permissions for the new values in the value list.

Settings:

- *General/Allow users to add new values to this list* (this must be selected in order to enable the creation of new values)
- *General/ Default permissions for new values (Specify the users who may see the new values on the value list by default.)*
- *Permissions/ Specify the users who may see the name of this value list and add items to the list.*

Note: As in M-Files 4.0, a value-specific permission can still be set for a single value. Similarly, also default permissions for new objects can be set value-specifically. These permissions are set in the Value list **content** permissions.

### 7.4 Property Definitions

In the property definitions, you can determine who has access for viewing this property and who may edit the property in the object metadata.

If the user does not have permission to view the property, it is not available for selection in M-Files (for example, when you are creating a new search or when *More properties* is selected).

If the user cannot see the property, the user also does not have permission to edit it. However, the user may have permission to see the property without having permission to edit it. Editing in this case refers to the user being able to edit the property in the object metadata in all possible ways: edit its value, or add or delete the property.

- *Settings: Permissions/Specify the users who may see this property and edit values of this property*

### 7.5 Classes and Class Groups

Class-specific visibility permission can be specified at the desired class level. Similarly, default permissions for new objects can be set class-specifically. These permissions can be specified on the

*Permissions* and *Default Permissions for Objects* tabs. Specifying class-specific permissions was already possible in the 4.0 version.

## **7.6 Workflows**

In the workflow properties, you can specify who has access for viewing the workflow in question. If the user does not have access for viewing the workflow, also the workflow statuses are hidden.

- Settings: *Permissions/ Specify the users who may see this workflow*



## 8. Replication

### 8.1 Replicating the main server document vault on a replica server

Document vaults can be replicated from the main server to geographically separate *replica servers*. Opening objects from replica servers often makes it quicker to open documents for editing, because the connection to the main server may be slow. Therefore, replication makes accessing frequently used documents on client computers in geographically separate facilities much faster.

The document vault is replicated from the main server to the *replica server*. The document vault located on the replica server is called a *document vault replica*.

The replica server can be set up by a login account for the main document vault to be replicated. The M-Files Server software must be installed on the replica server and the user must have sufficient access rights to it (the System administrator role).

In M-Files Client Settings, the connection to the document vault replica is created in the same way as any other document vault connection. M-Files Client user sees only the name of the document vault replica; in other words, the user does not know whether the vault is replicated or not.

The screenshot shows a Windows-style dialog box titled "Document Vault Replica Properties - New Document Vault Replica". It has a "General" tab selected. The "Source document vault" section includes a "Server name" text box, a "Port number" text box with "2266", a "Protocol" dropdown menu set to "TCP/IP", and a "Source vault" dropdown menu. Below these are two buttons: "Test Connection to Server" and "Test Connection to Document Vault". The "Name" section has a text box and an "Update" button. The "Unique ID" field shows a hyphen. The "Cache location on server" section has a text box containing "C:\Program Files\M-Files\Server Vaults\" and a browse button "...". Below this is a "Set Account..." button. The "Location for cached file data" section has a text box containing "C:\Program Files\M-Files\Server Vaults\FileData\\*.bin". At the bottom are four buttons: "OK", "Cancel", "Apply", and "Help".

The Document Vault Replica Properties include the information of the document vault to be replicated.

#### Server name

Enter the network name or IP address of the server on which M-Files Server has been installed and that contains the document vault.

**Port number**

The server was specified in the previous field, and in this field you specify the port to connect to on the server. Enter the server port number to connect to. M-Files uses port 2266 by default.

**Protocol**

Define the protocol to be used for the network connection. You can select TCP/IP or SPX.

**Test connection to Server**

After specifying the contents of the above fields, you can check whether you can successfully connect to the document vault. If the connection works, the server has responded to the connection test.

**Source vault**

Select the document vault to be replicated.

**Test Connection to Document Vault**

After specifying the contents of the above fields, you can check whether you can successfully connect to the document vault. If the connection works, the document vault has responded to the connection test.

**Name**

The document vault replica has the same name as the source vault by default.

**Update**

The Update function can be used to update the name of the document vault replica when the name of the source vault changes.

**Unique ID**

Unique ID is the identification of the document vault replica. The document vault replica always has the same unique ID as the source vault. The M-Files server uses the IDs to tell document vaults apart, which prevents, e.g., the same vault being replicated twice to the same server.

**Cache location on server**

Specify the directory where the document vault replica is stored on the server.

**Set Account**

Select the account used to connect to the server cache. The M-Files server uses this account to store information in the server cache or opens files from it. The account must be specified when the cache is on, e.g., a file server requiring authentication for connection.

**Location for cached file data**

Location for cached file data specifies the path to the replicated files in the cache directory.

## 9. Importing and synchronizing user groups from Active Directory

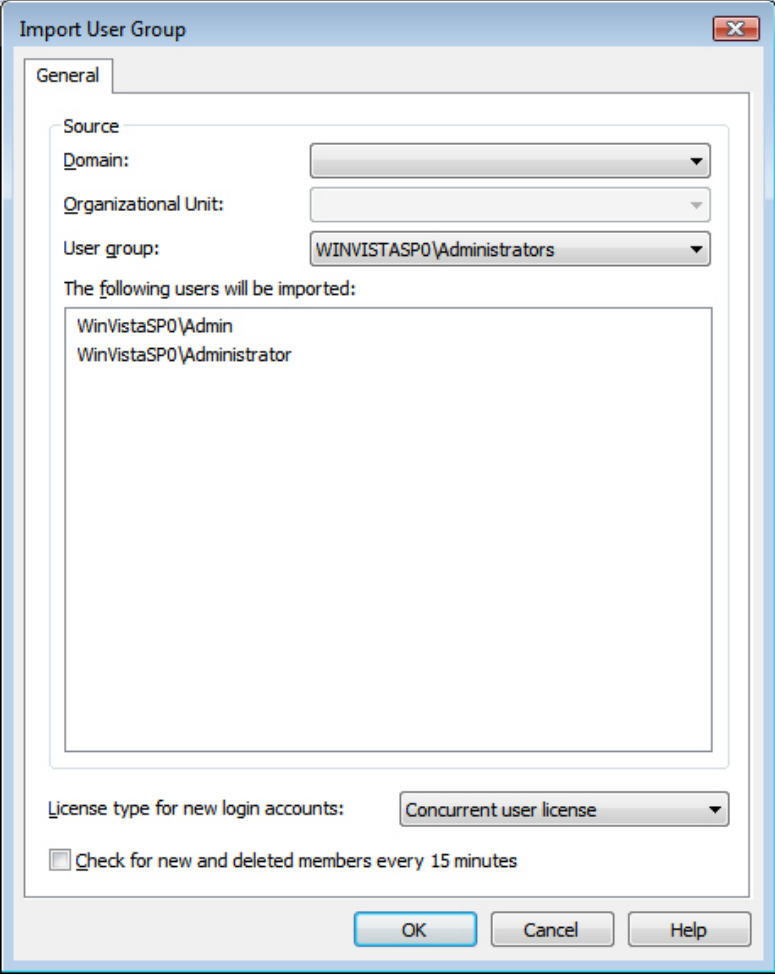
### 9.1 Importing user groups by organizational unit

*Import User Groups* allows you to import user groups to M-Files. User groups can be imported by domain and by organizational unit. This makes importing user groups into M-Files quicker and easier. M-Files can check for new and deleted user group members periodically.

#### *Importing user groups by domain and organizational unit*

Select the user group by domain and organizational unit. Also select a license type for the new login accounts.

You can also have M-Files check every 15 minutes for new and deleted members. Otherwise M-Files checks for changes with the *Refresh Now* action.



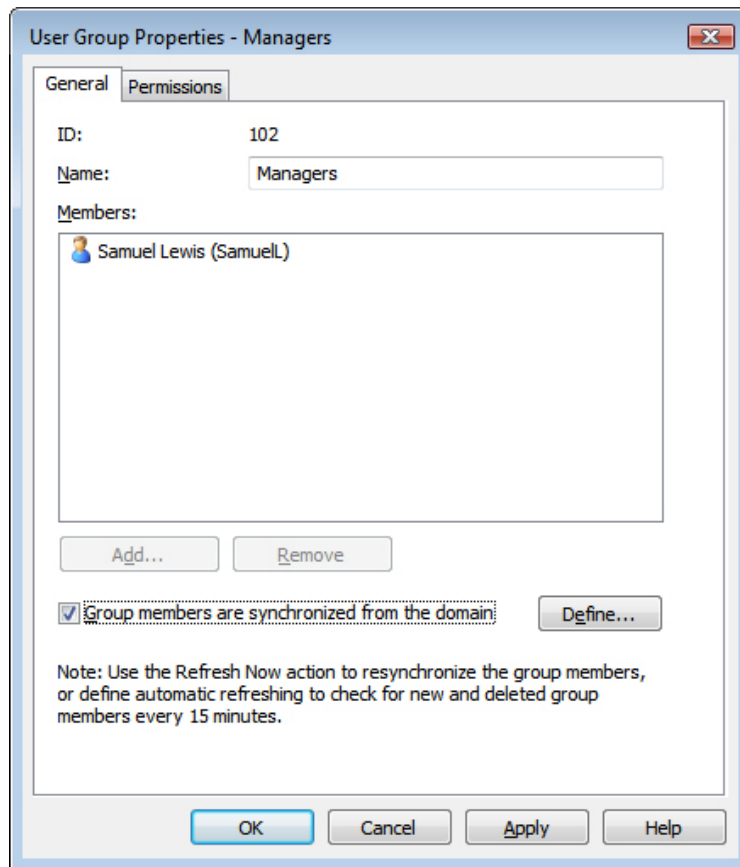
*User groups can be imported by domain and by organizational unit.*

### 9.2 Importing a user group from a changed domain user group

The importing of a domain user group into M-Files can also be disabled, or edited to use another domain user group as its.

For example, if the domain user group changes (e.g., it is renamed or the grouping is changed), the earlier M-Files user group can be merged with the new domain user group. This preserves the identity of the M-Files user group regardless of changes in the domain user group, and the permissions related to it can remain the same.

Select *Group members are synchronized from the domain* and *Define*. Then edit the information for the user group to be imported.



The image shows a Windows-style dialog box titled "User Group Properties - Managers". It has two tabs: "General" (selected) and "Permissions". In the "General" tab, the "ID:" field is set to "102" and the "Name:" field is set to "Managers". Below these is a "Members:" section containing a list box with one entry: "Samuel Lewis (Samuell)". Under the list box are "Add..." and "Remove" buttons. Below those is a checkbox labeled "Group members are synchronized from the domain:" which is checked, and a "Define..." button to its right. At the bottom of the dialog are "OK", "Cancel", "Apply", and "Help" buttons. A note at the bottom of the "General" tab reads: "Note: Use the Refresh Now action to resynchronize the group members, or define automatic refreshing to check for new and deleted group members every 15 minutes."

*You can define the new user group by using the Define function.*

## 10. Web Access

Several improvements have been made to M-Files Web Access. Some of the new properties are listed below.

Functions:

- It is easy to create a new document: a local file can be saved directly as a new document. There is no need to create the object separately and replace it afterwards with a file.
- With the *Check In* function, you can replace the old version of the document with a new version. There is no need to do this separately with the *Replace with File* function.
- You can add document files to a multi-file document or remove them from it with the *Edit Files* function.
- You can display and edit the object properties without the need to reserve the object for modification.
- You can add files to all of the items of object types (these rights are specified via the M-Files Server Administrator interface).

## 11. New language versions

M-Files is now available in the following languages:

- Finnish
- English
- French
- German
- Chinese (Taiwan)
- Hungarian
- Vietnamese
- Slovenian
- Portuguese (Brazil)
- Polish

You can change the software language during use. Even if the English version of M-Files is installed in the machine, it can be changed to the French version as necessary without reinstalling the software. This is a significant advantage for machines in common use.

## 12. M-Files API

The improved M-Files API (programming interface) enables creating workstation-specific applications. Previously, M-Files API was server-specific. Now, all changes made using the M-Files API are immediately visible to the M-Files Client user. This offers more possibilities for programming different applications. A good example of this is the improved Office integration, which has new features and enables, for example, using Office applications to display and edit features of a document saved in M-Files.

Applications created by using the M-Files API are now also version-independent. Therefore, applications do not need to be edited when the M-Files software is updated.

## 13. Compatibility with 64-bit Windows

The M-Files is compatible with both 32-bit and 64-bit Microsoft Windows operating systems. The 32-bit and 64-bit systems have separate installation programs.

The M-Files software can be installed in computers running on one of the following operating systems:

- Windows Server 2008
- Windows Server 2003
- Windows Vista
- Windows XP
- Windows 2000

Mac and Linux users can access M-Files via Web Access.