Materials Control

Advanced Authorization

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Introduction:

This document describes the setup & use of the new Advanced Authorization functionality.
The minimum version for this is Materials Control 8.6.5.10.31.1240 for the thick client application and MCweb 5.10.61.1240 for the web application.
This functionality can be used instead of the existing standard Authorization function, but a combination of both is not possible.

Before activating this, all advantages and disadvantages must be discussed with the users.

What is the purpose of this new functionality?
The standard Authorization functionality allows to define up to 6 authorization levels for users and articles and as well up to 6 value levels for profit contribution and/or expense articles per document. Based on these definitions the documents requiring authorization were routed from one level to the next until it was fully authorized. A document could have been authorized by any user having the required authorization level and rights to see the document.
This new, advanced functionality allows to define exact rules for this process. On the most detailed level this allows to define the authorization flow per item group per article with exact user routing.
Of course the rules could also be defined in a simple way to mirror more or less the standard functionality of the old module, but still using the new features like web-based authorization and email notifications.

Due to the complexity of this model some features available in the Standard Authorization model are not available in the Advanced model:
Most important points:
- Skipping inbetween authorizations: When using the Advanced Authorization model it is not possible that e.g. a user with level 5 can authorize before the required authorizations for lower levels were done (STRICTAUTH must be used!). In certain scenarios this could be covered using the below described Stand In functionality.
- Change of Cost Center during authorization of documents. Since that could require different authorization flows this cannot be allowed. The document must be rejected back to the creator and this user must change the cost center.
- Increase of quantities. Since that could require different authorization flows this cannot be allowed. The document must be rejected back to the creator and this user must change the quantity.

NOTE: Before activating the Advanced Authorization, make sure that all existing documents are authorized.
Documents created before the activation cannot be authorized with the new functionality. (Documents created using the new functionality also cannot be authorized with the old functionality!)

MICROS-FIDELIO strongly recommends a setup in a test environment first to make sure that all the below was tested and understood completely.

SETUP & CONFIGURATION:

This chapter will explain the required parameters and the functionality as well as the setup of users, authorization rules and authorization workflows.

CONFIGURATION:

Several parameters must be set in order to activate and configure the Advanced Authorization model.
All parameters can be found in System > Configurations > FBV8.INI.

Some of the parameters are defined as hidden parameters by design as these have a massive impact on the application functionality.
Please contact the Materials Control Support team to activate the visibility for hidden parameters.

NOTE: The parameters related to the Standard Authorization mode (e.g. EXP_VALUE1-6) are no longer considered when using the Advanced Authorization module.

Section CUSTOM:

In the module "Configurations" select the section CUSTOM.
Here you can find several parameters related to this functionality.

ADVANCED_AUTHORIZATION: This is the general parameter to activate the
                           Advanced Authorization functionality.

F or blank =   use the Standard Authorization functionality
T =   use the Advanced Authorization functionality

NOTE: Before changing this parameter make sure that all documents requiring authorization are fully processed.
Documents requiring authorization created in Standard (F) mode cannot be processed in the Advanced (T) mode.
Documents requiring authorization created in Advanced (T) mode cannot be processed in the Standard (F) mode.

AUTHEMAILNOTIFY: This is the general parameter to activate the Advanced Authorization functionality.

This flag will activate the email notification functionality for this module.

T=   The system will send notification emails via SMTP using the MC email configuration parameters to the users who have to authorize documents.

F or blank =   No notification emails will be sent.

The system will then send an email to the creator of the document showing who has to authorize the document…

… as well as to the user who has to authorize the document first.

Once this user has authorized the document, the creator will be informed about this…

… and the next user will be notified:

In case a user rejects the document, the creator will be informed about this:

Once the document was authorized completely again the creator is notified:

NOTE: Make sure that the mail configuration is set properly!

AUTHEMAILNOTIFYDEBUG: This parameter activates a debug mode to control the
                          correct email processing

Option: Change Configuration Settings

Configurations File	fbv8.ini
Section	CUSTOM
Item	AUTHEMAILNOTIFYDEBUG
Value	T
Information	Adv. Authorization: Debug function for Authorization Notification Emails to show the receipient user

OK   Cancel

At setup & testing this new functionality it is helpful to see that the emails are sent correctly. In such case use one email account for the users (see user configuration below) to be notified for authorization actions. The email will then contain "To User: {User Name}" as first line in the email body.

AUTHEMAILNOTIFYWEB: Definition of the MCweb link to access the authorization module.

Option: Change Configuration Settings

Configurations File	fbv8.ini
Section	CUSTOM
Item	AUTHEMAILNOTIFYWEB
Value	http://localhost/<your_web_service/FormLogin.aspx
Information	Adv. Authorization: Web address to the MCweb Server. Will be included in Authorization Notifcation Emails

OK   Cancel

Define the web address to the MCweb web server login page. This address will be included in the notification emails (as used in the sample emails above).

The next 2 parameters are used to define the standard document listing when opening the Authorization module:

In certain scenarios it could be helpful to define which type of documents should be displayed per default. This pre-definition could be set in general or as well per user. (The function "show all Requests" is not available by design when using Advanced Authorization!)

AUTHEXTERNALDOCUMENTS: Default setting for document listing.

This parameter defined the default setting for external documents (Purchase orders, Purchase Requests).

T: Checkbox to display external documents is marked
F: Checkbox to display external documents is not marked

AUTHINTERNALDOCUMENTS: Default setting for document listing.

Option: Change Configuration Settings

Configurations File	fbv8.ini
Section	CUSTOM
Item	AUTHINTERNALDOCUMENTS
Value	T
Information	if T: Issue Requests and Transfers to authorize will be displayed in the Authorization module. Please note that this can be defined per user as well!

OK   Cancel

Similar as above this controls the default setting for internal documents (Issue Requests, Transfers).

T: Checkbox to display internal documents is marked
F: Checkbox to display internal documents is not marked

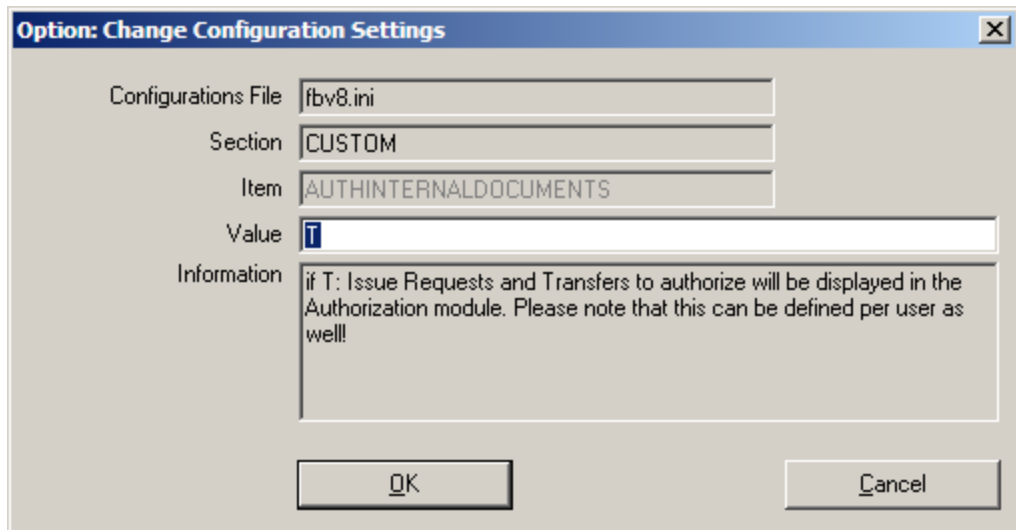STRICTAUTH: Strict Authorization Flow Control.

Option: Change Configuration Settings

Configurations File	fbv8.ini
Section	CUSTOM
Item	STRICTAUTH
Value	T
Information	if T: Authorization must be done Level by Level (Level 6 can not athorize if Level 3 has not authorized)

OK   Cancel

This parameter is optional when using the Standard Authorization functionality, but is an absolute **must** in the logic of Advanced Authorization.
It is the main key in Advanced Authorization model that the document must strictly follow the predefined rules.

USER SETUP:

This chapter will explain the required changes in the setup of the users.

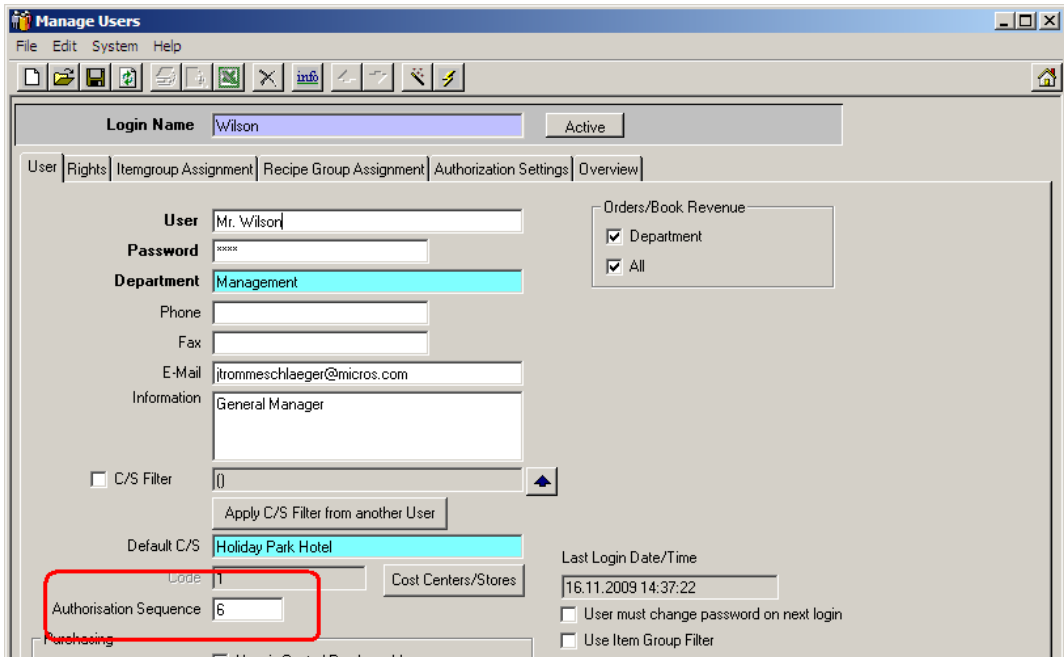|	
Email:	IMPORTANT! Every user must have a valid email address defined. Otherwise no notification can be sent! In certain fields in the application, where email communication is used, also users without a valid email address (x@x.xx) will not be selectable anymore.
Authorization Sequence:	This is the former Authorization Level, now renamed to Sequence and no longer limited to any value when using Advanced Authorization.

New tab "Authorization Settings":

Authorization Sequence: simply mirrors the value from 1st tab.

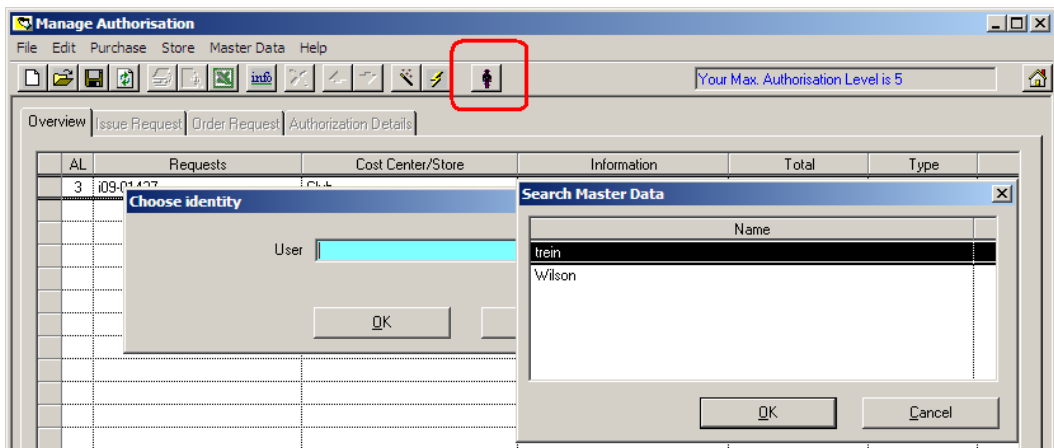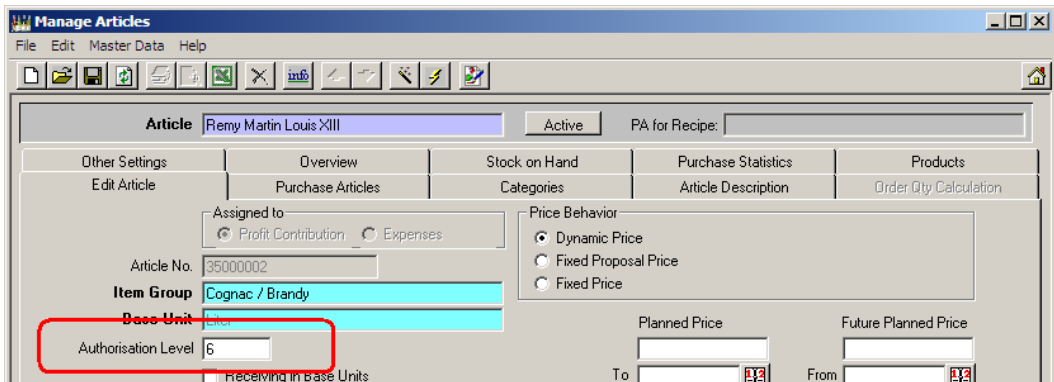|	
Max. Value Profit Contribution:	This is the value definition for the value based authorization for this user for PC assigned positions. The values in Configuration are not used in Advanced Authorization mode.
Max. Value Expenses:	This is the value definition for the value based authorization for this user for PC assigned positions. The values in Configuration are not used in Advanced Authorization mode.
Out of Office:	This function can be used to activate a function to re-route all documents to be authorized to a Stand In user.
Stand In:	Here the user can select his stand-in user. All documents will then be routed to this "replacement user". The stand-in also can be selected in the module "Change Password". The stand-in user then could select his identity in the authorization module.

NOTE: All documents which should be authorized by this user will be visible for him and for his Stand In as well if the option "Out of Office" is marked!
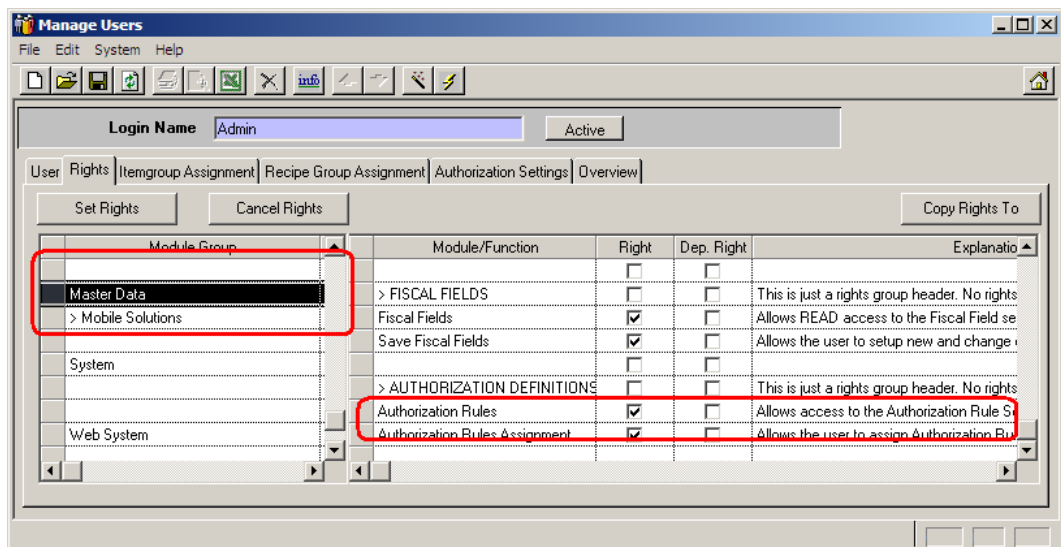
ARTICLE SETUP:

Here almost nothing was changed, except that fact that here also the Authorization levels are no longer limited to 6.

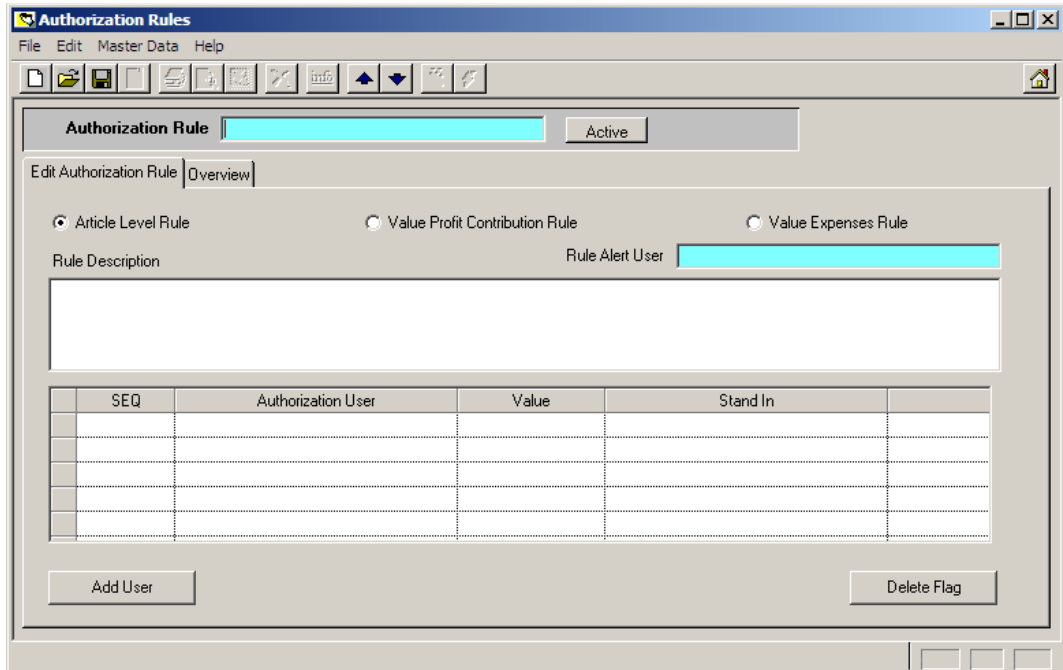Just keep in mind that for every level defined in the article setup at least one user should exist in order to process the document.

AUTHORIZATION RULES:

A complete new module was added to define the Authorization Rules.
Here the exact workflow (user-routing) is defined.
Since the definition of these rules is a critical point, the access to this module is secured through a user right:
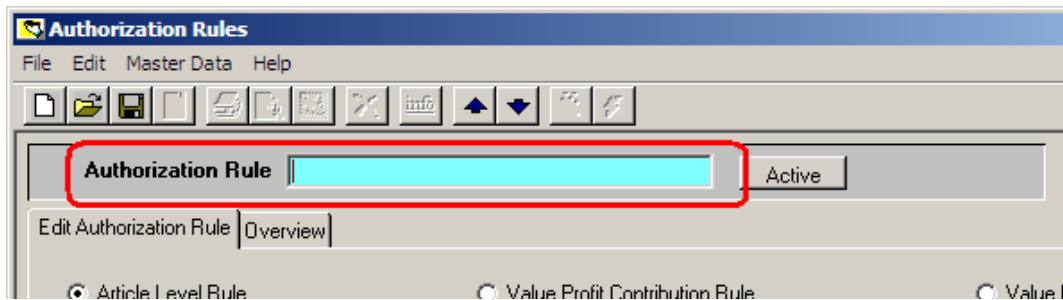

The new module can be found in the Master Data menu section:

Creation of new rules:

Similar as to all other master data items in MC a name must be defined for the rule.

Please make sure that the name of the rule already shows the purpose of the rule.
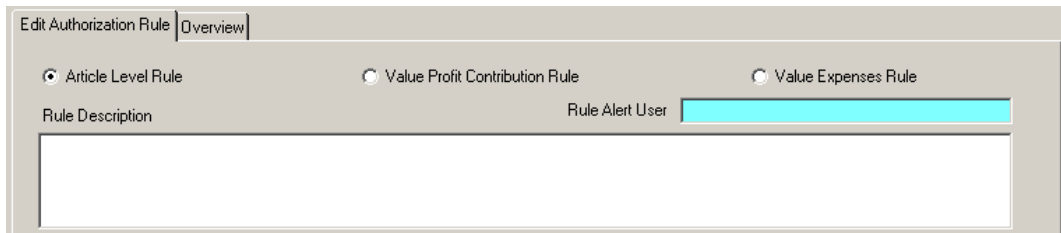
Examples:

Main BEV Rule: General rule for all beverage articles, to be used if no further
                       detailed rule is defined.
Main FOOD Rule: General rule for all food articles, to be used if no further
                       detailed rule is defined.

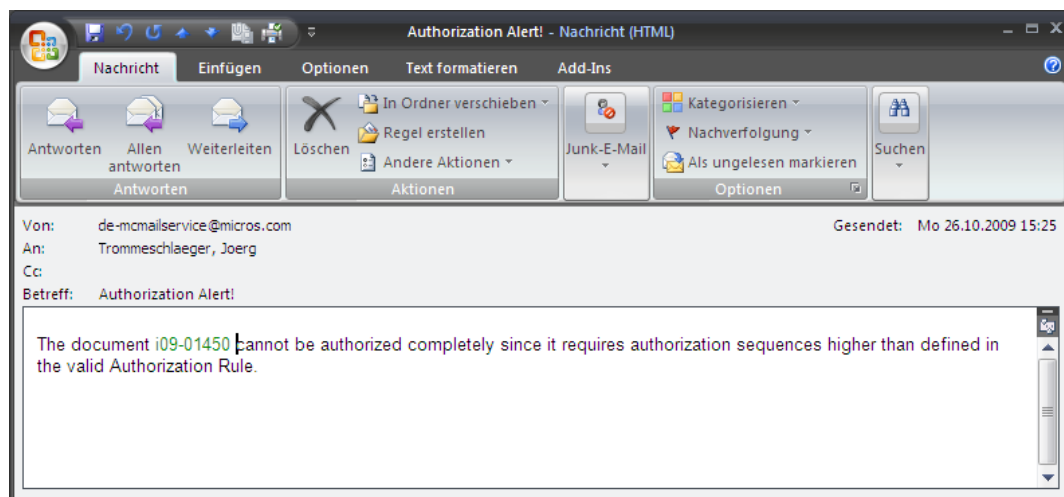Kitchen Caviar Rule: Detail Rule for Caviar ordered for the Kitchen

Rule Header:

The Advanced Authorization functionality will use three different types of rules:
- **Article Level Rule:**
  - o This type of rule controls the authorization flow based on the authorization levels assigned to the articles.

- **Value Profit Contribution Rule:**
  - o These rules are used to control the value-based authorization for articles assigned to profit contribution groups.

- **Value Expense Rule:**
  - o These rules are used to control the value-based authorization for articles assigned to expense groups.

For every rule a *Rule Alert User* should be defined. This should be the main administrator of the authorization rules. This user will be notified via email in case of an invalid document routing.

This could happen if a user creates a document requiring authorization, but the valid rule does not contain users with the highest required authorization level for this document. (e.g. the document requires authorization up to level 10, but the valid rule only contains users up to level 7).
The Rule Alert User now needs to adjust the rule or the article and the document must be picked up be the creator and re-send again.
ATTENTION: The adjustment of the authorization level of an article could end in unresolvable documents, if the article was already used in other documents!

Rule Description:
Here the user can enter a free-text description of the rule (up to 254 characters) to explain the planned usage of the rule. This description is displayed in the module Authorization Rule Assignment.

Rule Body:

	SEQ	Authorization User	Value	Stand In	
	3	Authorizor Anne Neurath AL 3			
	3	Authorizor Joerg Trommeschlaeger AL 3			
	4	Authorizor Daniel Schaefer AL 4			
	5	Purchase Manager Trein AL 5			
	6	GM1 Wilson AL 6		Purchase Manager Trein AL 5	

Add User   Delete Flag

Here the main definition of the rule is done

Columns:

SEQ: Here the authorization sequence of the user is shown.
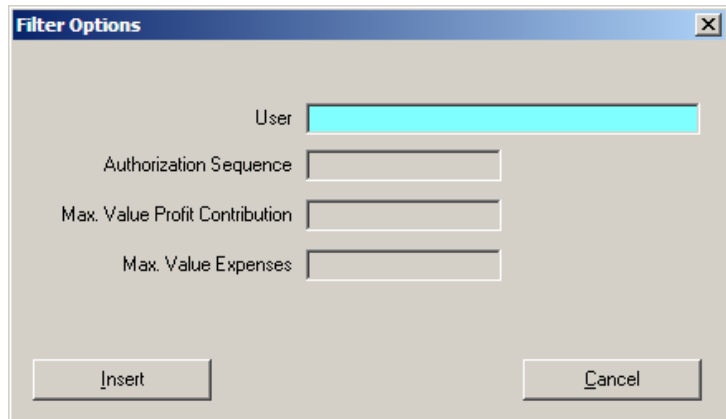
Authorization User: This is the fullname of the authorization user.

Value: This column is filled for value based rules only and shows the allowed authorization values of the users

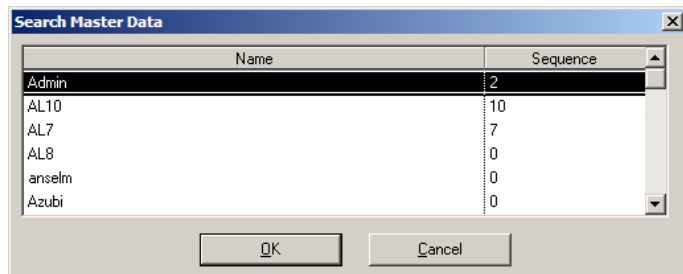Stand In: Here the Stand In for the user is displayed.

Buttons:

Add User: Click on this button to add a new user to a rule.

Filter Options

User [   ]

Authorization Sequence [   ]

Max. Value Profit Contribution [   ]

Max. Value Expenses [   ]

Insert   Cancel

Search Master Data

Name	Sequence
Admin	2
AL10	10
AL7	7
AL8	0
anselm	0
Azubi	0

OK   Cancel

Here you can select the user to be added. This listing also shows the defined authorization sequences of the user.

Delete Flag: This is the usual Delete function to remove one or more selected records from a list. The system will mark the records and remove them on next save action.

As you can see in the example above the new functionality also allows to define that a document requires multiple authorizations on the same level. Keep in mind that this is an "and" condition, not an "or" condition!
The advanced Authorization model always requires authorization from all defined users or their assigned stand in users!

NOTE: The authorization route (user A -> user B -> user C….) for a document is created at the point when the document is sent to the authorization module by the creator.
Changes of the rules will affect new documents only. Existing documents will follow the "old" rules.

What kind of rules are possible/needed?

The application supports three "levels" of rules:
- "General Rules", valid for every area where no specific rule exists

   o "Cost Center based Rules", these will be used if the assigned cost center is used in a document as requesting location

      ▪ "Item Group based Rules", these will be used if the assigned cost center is used in a document as requesting location and the assigned item group is selected.

In most detailed cases a document could contain multiple rules per type and level.
If a user is listed in multiple rules, he needs to authorize only once.
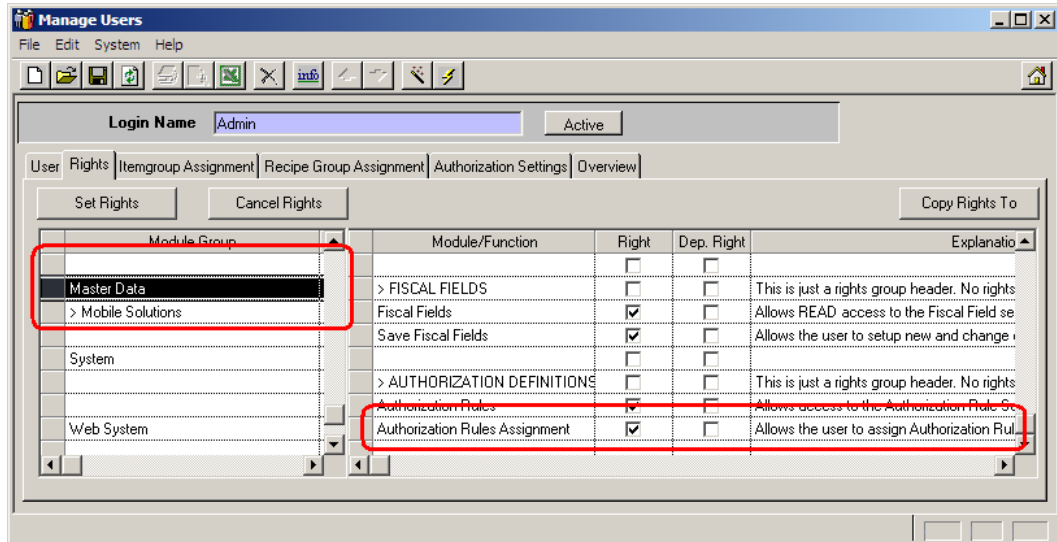At least the first level, "General Rules", must be set up for all three types (article level, value PC and value Expenses).

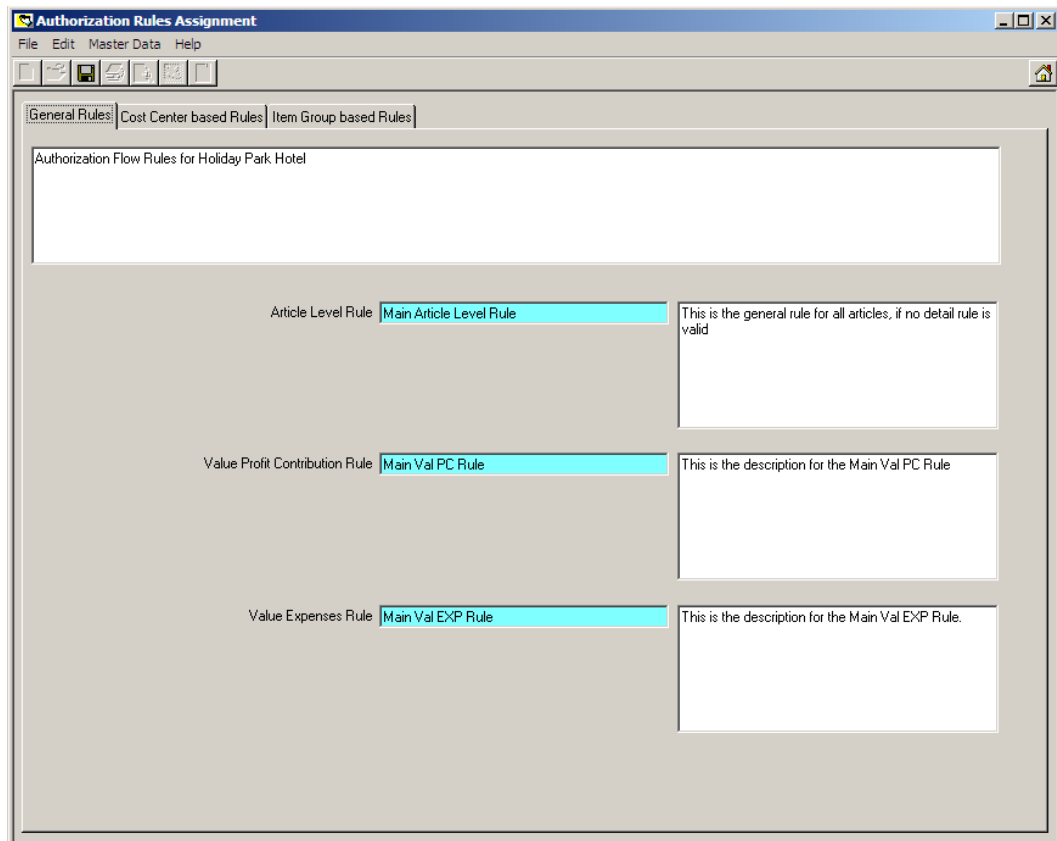Examples for the different rules will be shown in the next chapter.

A rule is always applied to the entire document!

AUTHORIZATION RULE ASSIGNMENT:

A complete new module was added to define the Authorization Rules.
This module is used to assign the created rules to different cost centers and/or item groups.
Since the assignment of the rules is a critical point, the access to this module is secured through a user right:
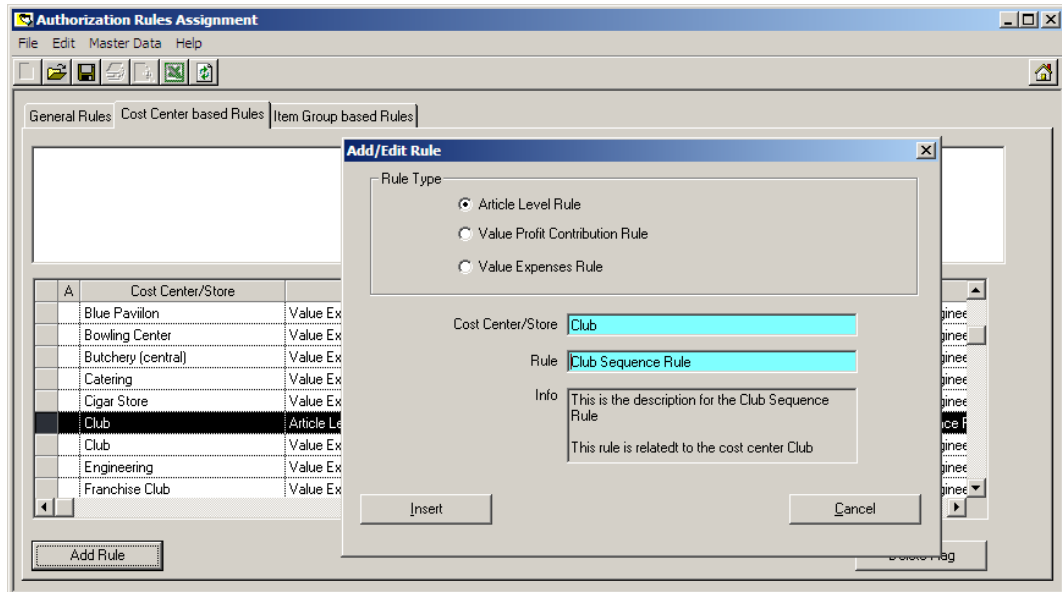

The new module can be found in the Master Data menu section:
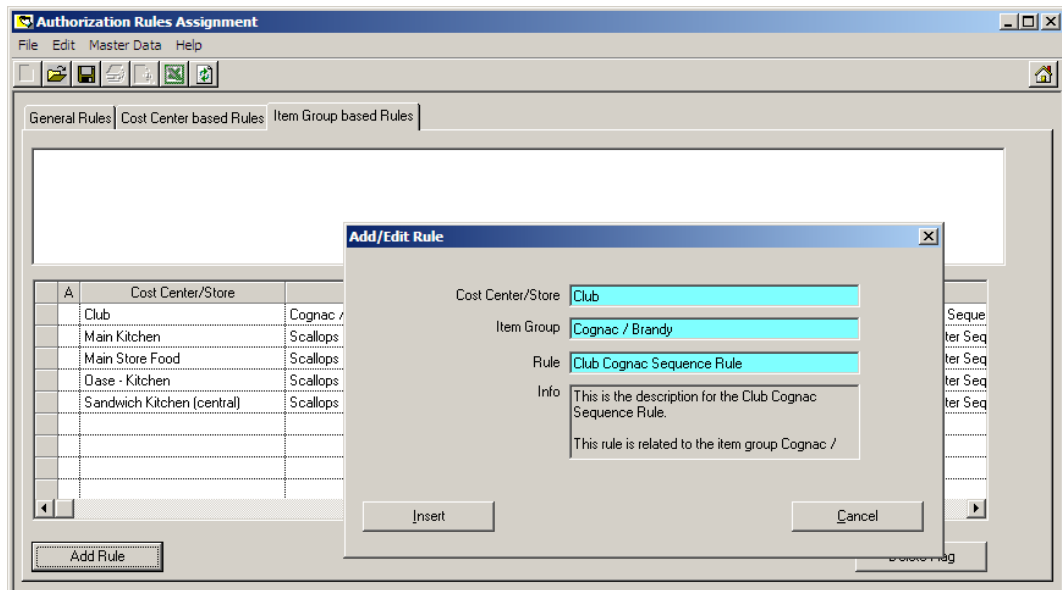
The screen shows three tabs.
On the first tab the general rules must be defined. For each type one main rule must be set. These rules will be used by the system if no other rules are valid.

On the second tab the rules per cost center can be assigned:

Please keep in mind that for all cost centers not having a rule assigned here the system will use the general rule (or an item group based rule if valid!).

On the third tab the rules per cost center per item group can be assigned:

Please keep in mind that for all cost center/group combinations not having a rule assigned here the system will use the cost center based rule (if existing) and/or the general rule.

If a document contains e.g. some expense articles with a value higher than the allowed value for the user and also some other profit contribution articles where an item group

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based rules is valid, the system will create the authorization flow containing the users of both rules.

NOTE: Please find below a workflow example which shows the main functionality. It is strongly recommended to setup a similar test lab before implementing the functionality in a live environment.

WORKFLOW EXAMPLE:

The following chapter will show a simple example of the workflow, but also shows clearly how rules are considered by the system.

SETUP:

Users:

Requestor:
-   here named "Anselm"
-   defined with Authorization Sequence 0
-   Max Value Profit Contribution 1.000
-   Max Value Expenses 1.000
-   assigned to the purchase manager

Authorizing users:
One user ...
-   here named "Peter"
-   defined with Authorization Sequence 2
-   Max Value Profit Contribution 2.000
-   Max Value Expenses 2.000
-   not assigned to the purchase manager

One user ...
-   here named "Anne"
-   defined with Authorization Sequence 3
-   Max Value Profit Contribution unlimited
-   Max Value Expenses unlimited
-   not assigned to the purchase manager

One user ...
-   here named "Joerg"
-   defined with Authorization Sequence 3
-   Max Value Profit Contribution 3.000
-   Max Value Expenses 3.000
-   not assigned to the purchase manager

One user ...
-   here named "Daniel"
-   defined with Authorization Sequence 4
-   Max Value Profit Contribution 3.000
-   Max Value Expenses 3.000
-   not assigned to the purchase manager

Purchase Manager:
-   here named "Thomas"
-   defined with Authorization Sequence 5
-   Max Value Profit Contribution 0
-   Max Value Expenses 0
-   defined as Purchase Manager
-   assigned as Stand In for the General Manager!

General Manager:
-   here named "Wilson"
-   defined with Authorization Sequence 6

- Max Value Profit Contribution unlimited
- Max Value Expenses unlimited
- assigned Stand In: "Thomas"!

Articles:

Have at least one article defined with e.g. Authorization Level 6...
- here named "Remy Martin Louis XIII"
- assigned to the item group "Cognac/Brandy"
- having a price quote for EUR 550,00 per Bottle
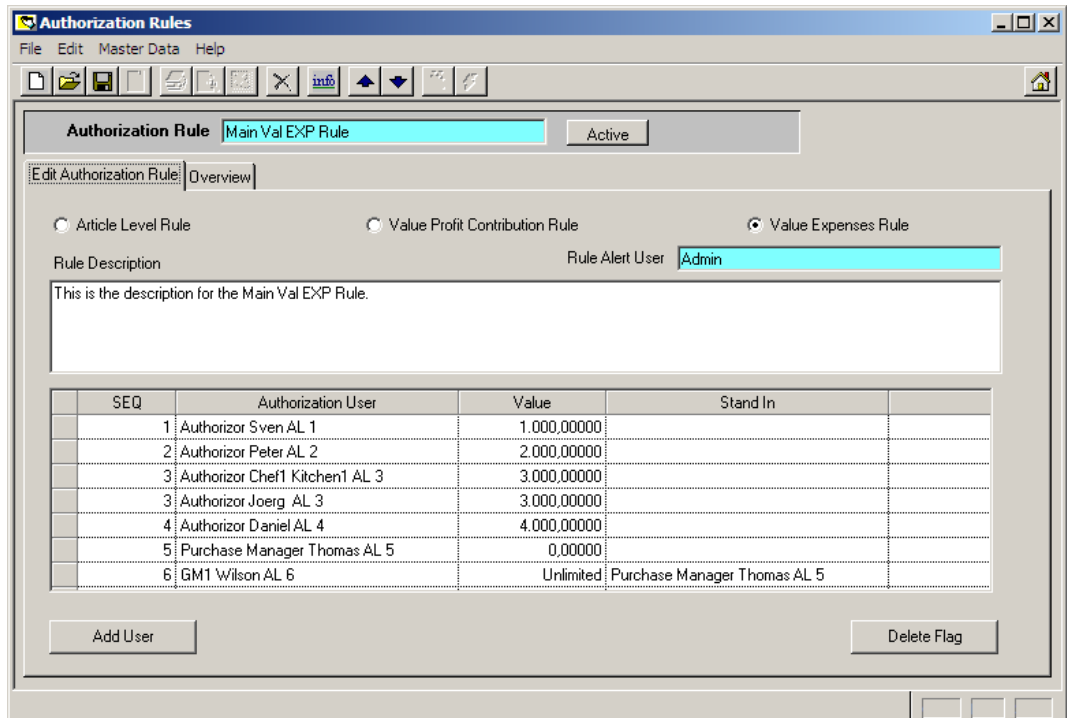
Rules:

General Rules:
Article Level Rule: "Main BEV Sequence Rule" defined as:

Value Profit Contribution Rule: "Main Val PC Rule" defined as:

Value Expenses Rule: "Main Val EXP Rule" defined as:

Cost Center based Rules:
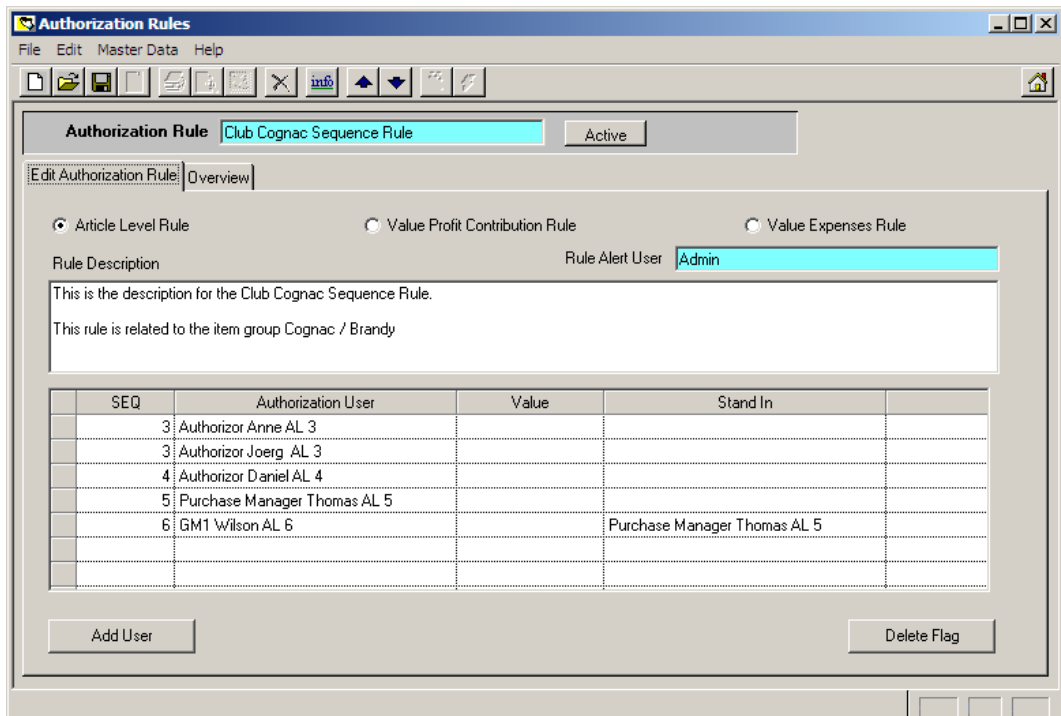One rule defined for a cost center, here named "Club":

... defined as below:

Item Group based Rules:
One rule defined for that cost center and the item group "Cognac/Brandy":

... defined as below:

You may have noticed that there are some other users included in these rules above, but it mainly depends on the ordered articles, cost center and the value of the order which rules are applied and which users have to authorize a document.

... PLACE A PURCHASE REQUEST:

Login as user Anselm > go to Purchase > Purchase Orders > create a new document:

- use the cost center "Club"
- use article "Remy Martin Louis XIII"
- use the price quote defined with EUR 550,00

The AL of the article is shown in red since it is higher than the user's level.

In the grid both buttons are active, "Set for Authorization" and "Request".

o   Click on Request:

Dialog comes up and shows that authorization is required.

Click on the *i* button next to the hyperlink:

The system here shows the exact status of the document:
- Who has already authorized?
- Who still has to authorize?

Which rules were considered?

General rules:

"Main BEV Sequence Rule"   valid, but overruled 1st by item group based rule "Club Cognac Sequence Rule"

"Main Val PC Rule":   not valid since the value of the order is just EUR 550,00 and the creator of the document is allowed to order up to EUR 1.000,00
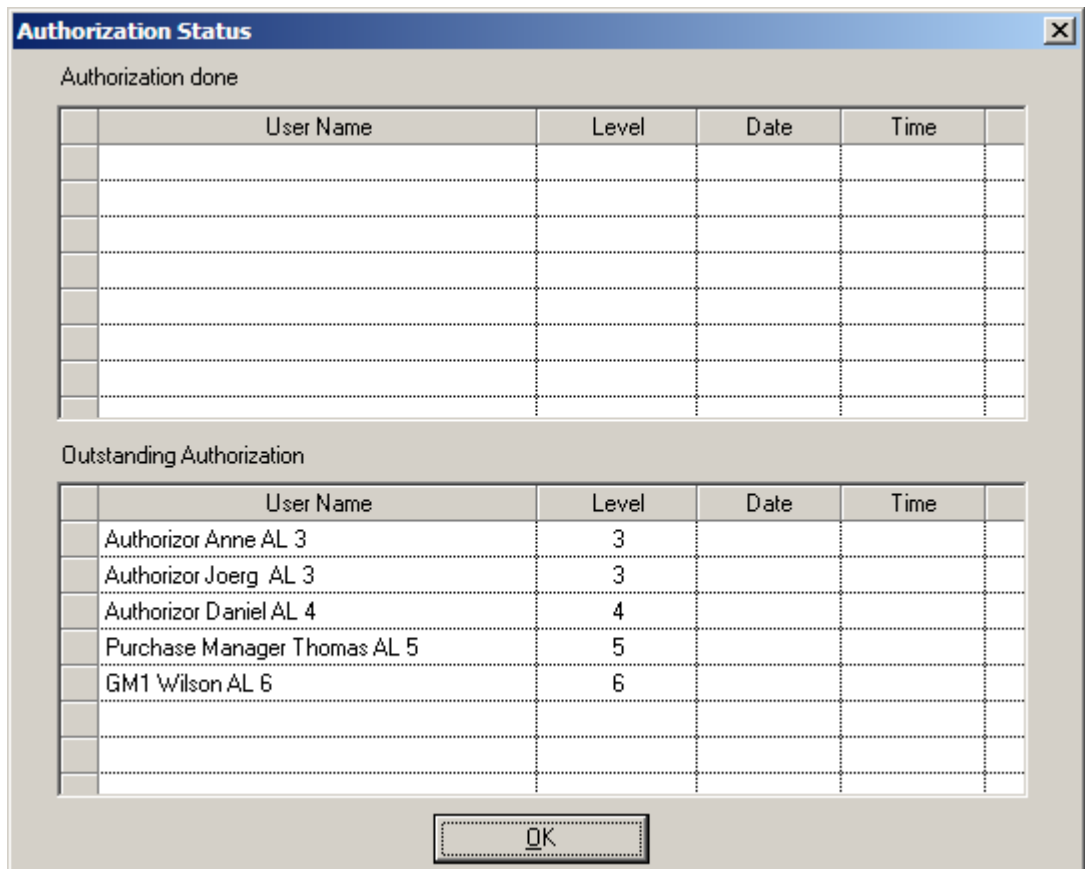
"Main Val EXP Rule":   not valid, no expense articles included in the document

Click OK to close the screen.

Click on "Cancel" to return to the document.

Adjust the quantity to 2 bottles and click again on "Request" and the *i* button:

Authorization Status

Authorization done

	User Name	Level	Date	Time	

Outstanding Authorization

	User Name	Level	Date	Time	
	Authorizor Peter AL 2	2			
	Authorizor Anne AL 3	3			
	Authorizor Joerg AL 3	3			
	Authorizor Daniel AL 4	4			
	Purchase Manager Thomas AL 5	5			
	GM1 Wilson AL 6	6			

OK

See that now more users need to authorize the document.

Which rules were considered?

General rules:

"Main BEV Sequence Rule"   valid, but overruled 1st by item group based rule "Club Cognac Sequence Rule"
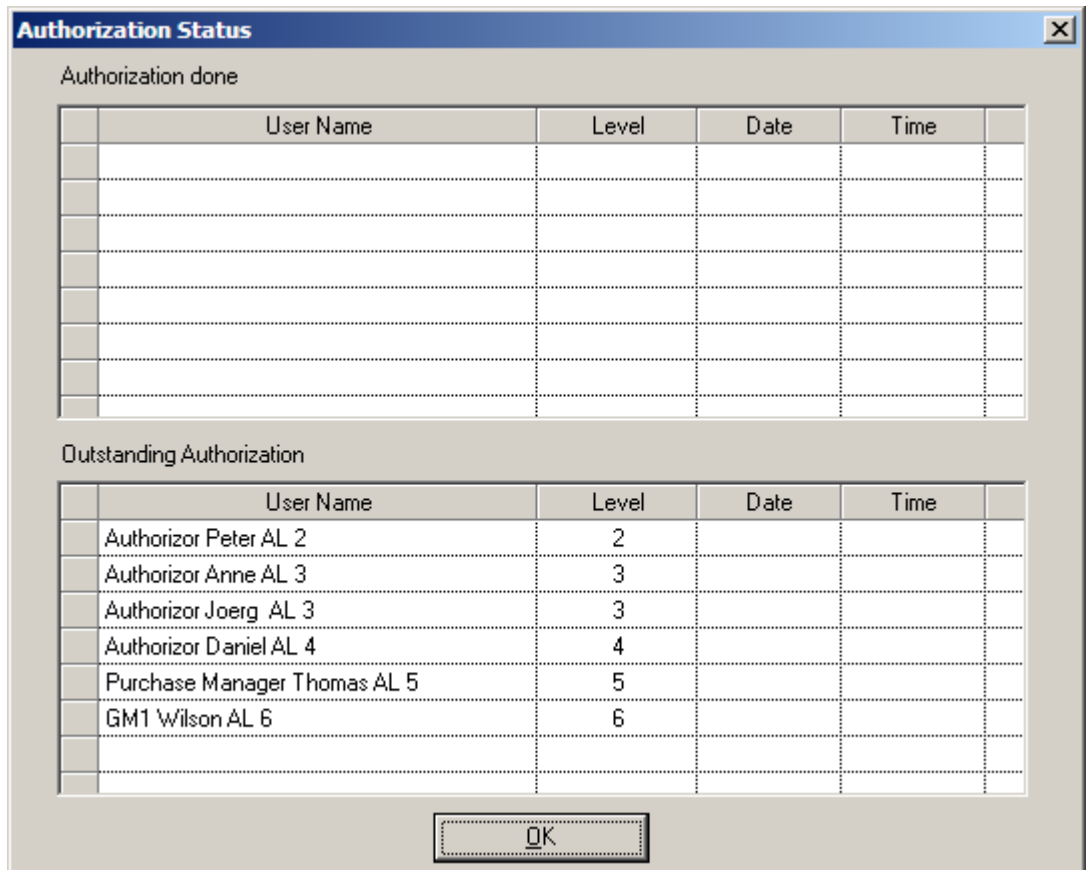
"Main Val PC Rule":   valid since the value of the order is EUR 1.100,00 and the creator of the document is allowed to order up to EUR 1.000,00 only
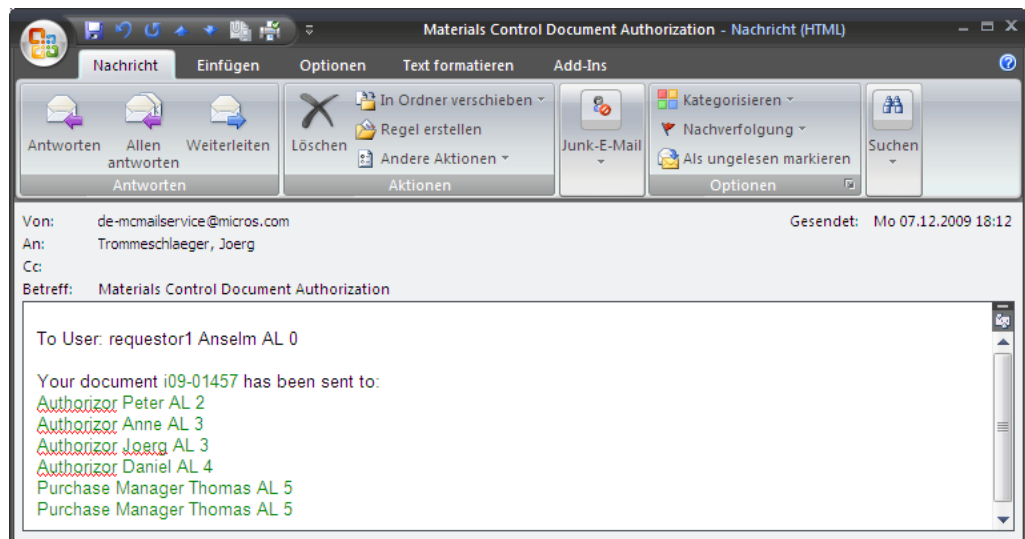
"Main Val EXP Rule":   not valid, no expense articles included in the document

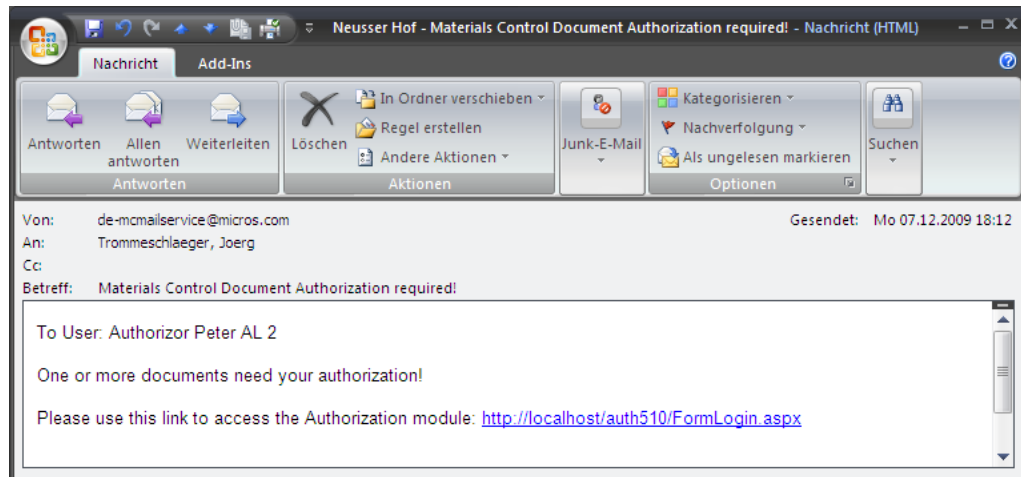Click OK to close the screen.

In the grid now click on the button "Set for Authorization".

The system now compiles the authorization flow and (if configured) sends out the emails.
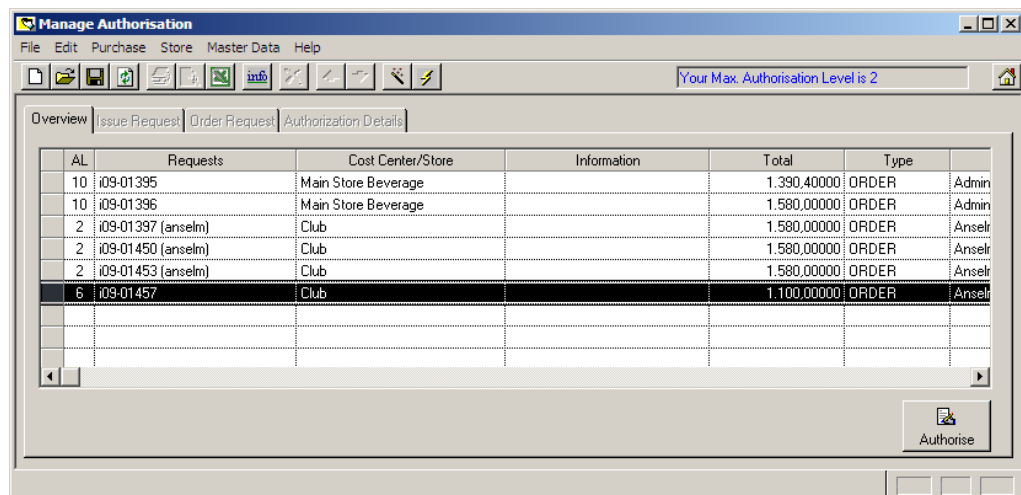
To the document creator:

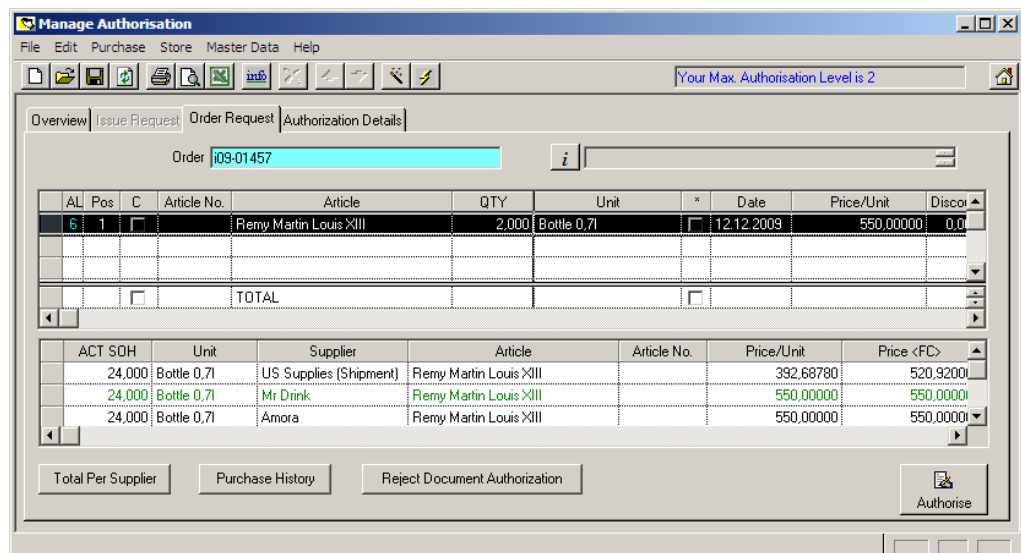To the 1st user who has to authorize:

Now the authorization users can start the authorization process using either the classic MC thick client application or MCweb.
For the 1st user the classic thick client is used in this example.

Login as user "Peter" and go to Store > Authorization:

Open the document by double click:

The screen is, except of some more columns, pretty much the same as in the Standard Authorization module. The main difference is the new tab which becomes active after opening the document:

This tab shows the exact authorization status of the document. Here in this case, nothing was authorized before. Return to the main tab and authorize the document.

Now the next emails are sent out:

To the document creator:

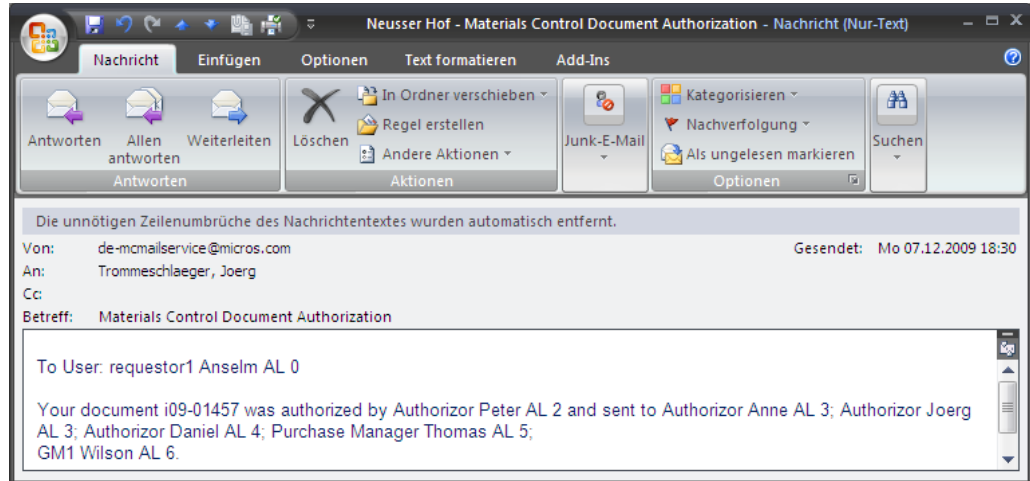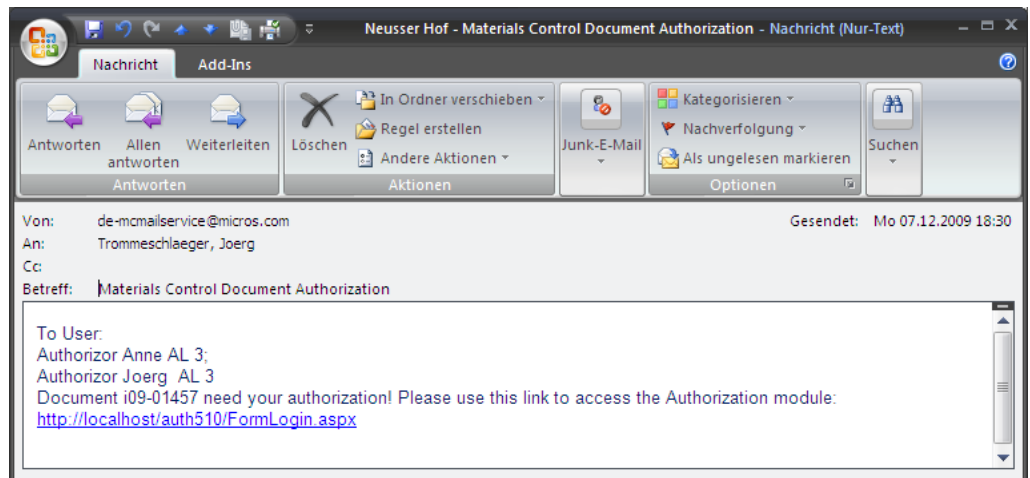To the 2nd user who has to authorize:

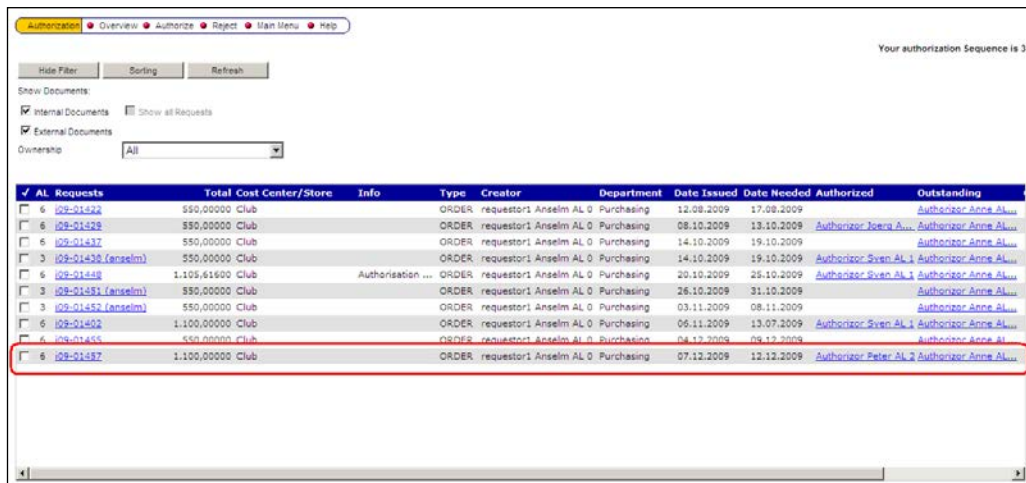
To the 2nd user who has to authorize:

The important point here is: The document requires the authorization from two users on the same level. Both have to authorize before the document will be sent to the next level.

NOTE: In this example the parameter "AUTHEMAILNOTIFYDEBUG" is set and since both users have the same email address defined, the system sends one email only!

As you may have seen the emails sent from the Thick client application have a slightly different layout.

For the next user the MCweb client is used in this example.

Login as user "Anne" and open the Authorization module:

At the right end of the screen you can see to columns containing hyperlinks. Here the user can monitor the authorization process for the document similar as in the thick client:

Open the document by using the hyperlink at the left side of the document listing:

This application contains much less details about the ordered articles compared to the thick client module. This is by design in order to keep the web application fast and simple.
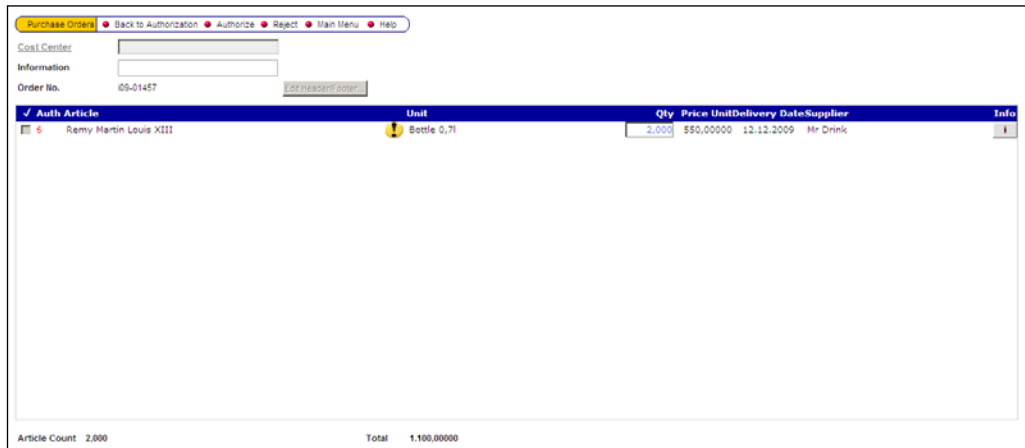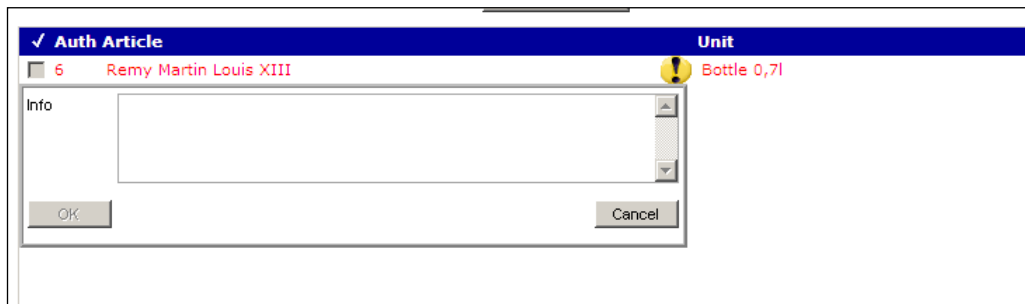
For Power users it is still recommended to use the thick client application since there all the detail features are available. But the General Manager for example should use the MCweb application, since all his Cost Controllers and Purchase Managers already have seen the document and adjusted the necessary details if required.

The usual information fields also can be used.
The document information field is located in the header section, the line information field can be opened by using the the *i* button at the right end of the grid.

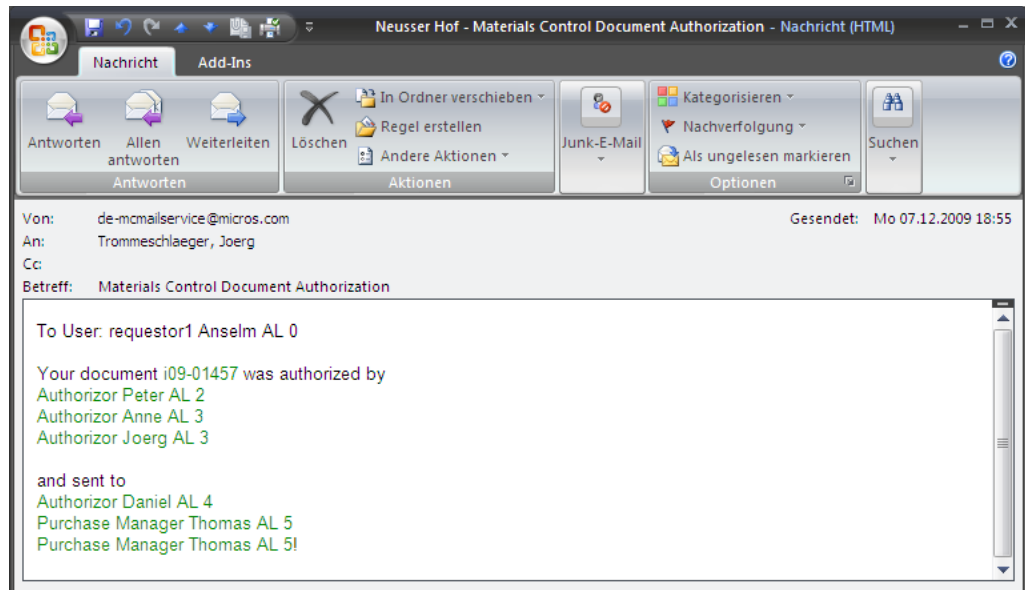Click on "Authorize" in the top menu to process the document.

In this case no email is generated since not all required authorizations are completed for this level.
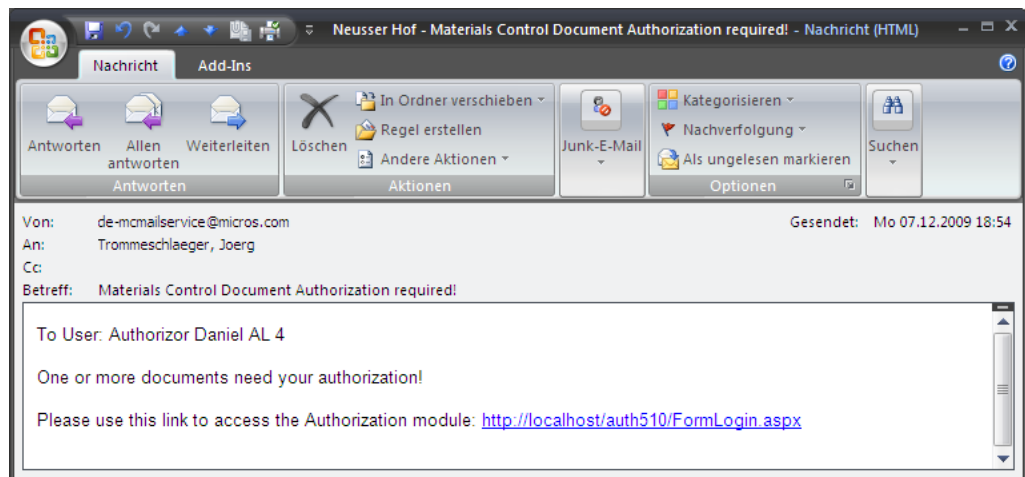
Login as user "Joerg" and authorize the document.

Now the next emails are generated:

To the document creator:

To the next user who has to authorize:

Login as user "Daniel" and authorize the document.

The next emails are generated:

To the document creator:

To the next user who has to authorize:

For the next authorization another interesting feature comes up. The next user who has to authorize the document is the purchase manager. This user also is defined as Stand In for the General Manager.

Login as this user "Thomas" and open the Authorization module.

In both modules now a new function becomes visible:

This function allows the user to change his identity to any user he is defined as Stand In for during the authorization process.
But still he needs to authorize the document first using his real identity in order to follow the defined rule.

Authorize the document using any of the two modules.

The next emails are generated.

To the document creator:

Now, since the next user in the origin flow has a Stand In defined, the email is sent to the Stand In user.

Now the purchase manager has to authorize the document a second time.
(regardless the "Out of Office" setting also the General Manager could authorize the document, but he will not get a notification!)

Before authorizing the document take a look at the authorization flow again:

Every step of the authorization flow is recorded with date and time stamp.
In the thick client application the usual reports are showing the authorization status as well.

PURCHASE REQUEST

For Authorisation
Request No. : i09-01457
Request Date: 07.12.2009

Mr Drink The Beverage Supplier
Liqueur or Wine Company
Main Street 54

Row 5

Delivery Location: 07 Club

Pos	Article	Quantity	Unit	Unit Price	Date Wanted
1	Remy Martin Louis XIII	2,000	Bottle 0,7l	550,000	12.12.2009
	Expense Account: 4016 Inventory Account: 3016		Last recv. Price/BU: 785,71 Min SOH: 5,00		
	Preferred Stock Unit: Bottle 0,7l		SOH: 12,00 Max SOH: 6,00		

Article Description: The highest quality Cognac on the market today, Louis XIII de Rémy Martin has been carefully tended by three generations of Rémy Martin cellar masters. The result is a magical combination of savoir-fair and patience. Louis XIII de Rémy Martin uses only grapes from the Grande Champagne region which guarantees its unique, exclusive quality.

It is blended from eaux de vie, some more than a century in age, then it is aged in 'tiercons', barrels that are several hundred years old, in a cellar set apart for it alone.
Undoubtedly the world's finest, this exceptional Cognac has always been a favorite in the world of politics, fashion, and art.
Its connoisseurs include Christian Dior and Elton John. Queen Elizabeth II, who was served Louis XIII de Rémy Martin Grande Champagne Cognac in Versailles Palace in honor of her 1957 visit to France.
And Winston Churchill, who celebrated his election victory with it in 1951.
- Appellation Grande Champagne Cognac.
- Aged Contains " eaux-de-vie " which are 40 to 100 years old
- Color Very Dark Golden Yellow, Fiery Red Tint, Mahogany
- First nose Narcissus, Jasmine, Very Old Tawny port, Cigar box Scent, Curry, Saffron, Nutmeg, Passion fruit
- Second nose Violet, Iris, Litchi, Pineapple, Eucalyptus and Sandalwood.
- First palate Very Concentrated, Rich in Aromas, Warm, Harmonious
- Second palate The Highest Complexity Including Aromas from First and Second Noses
- Finish 1 hour

Authorization Details

Level	Status	User	Department / Info	Time
Level 2	OK	Authorizor Peter AL 2		07.12.2009 18:29
Level 3	OK	Authorizor Anne AL 3		07.12.2009 18:51
Level 3	OK	Authorizor Joerg AL 3		07.12.2009 18:54
Level 4	OK	Authorizor Daniel AL 4	F&B Manager	07.12.2009 18:57
Level 5	OK	Purchase Manager Thomas AL 5	Purchase Manager	07.12.2009 19:14
Level 6	Outstanding	GM1 Wilson AL 6	General Manager	

Requestor :   Department Head:

NOTE: The term "usual" is related to the application users. Technically the system is using different reports and a different section in the REPORT.INI file.

REPORT INI:

Standard Authorization:
[POBasket]
1=QUITT2.QRP, Standard, 1
2=QUITT2_P_REQ.QRP, Enhanced Purchase Request, 1
3=BESTBED2.QRP, Requirement List, 5
4=BESTSORT.QRP, Assortment List, 3

Advanced Authorization:
[POBasketAdvAuth]
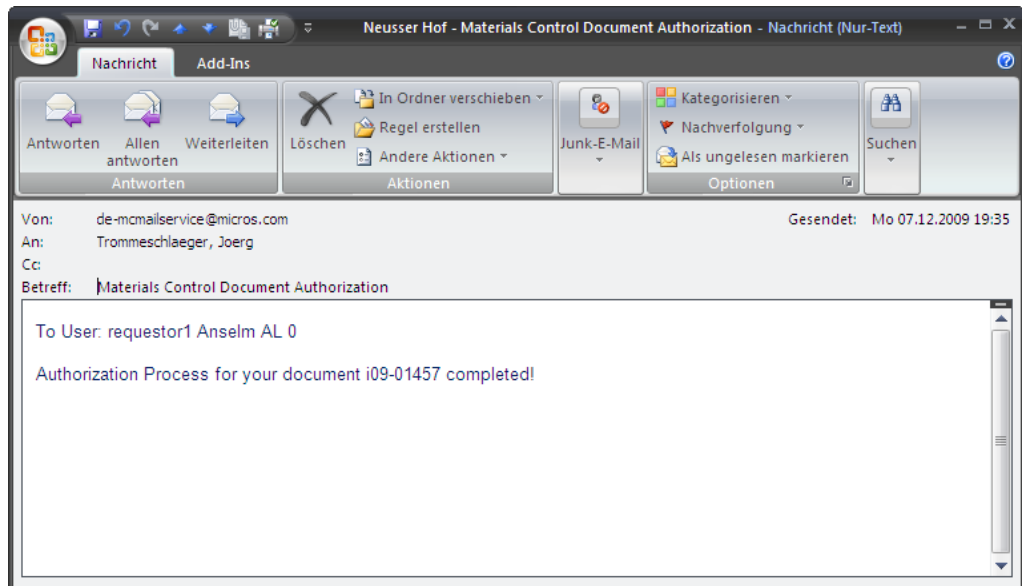1=QUITT2_ADV.QRP, Standard, 1
2=QUITT2_P_REQ_ADV.QRP, Enhanced Purchase Request, 1
3=BESTBED2.QRP, Requirement List, 5
4=BESTSORT.QRP, Assortment List, 3

Reports:

Standard Authorization	Advanced Authorization:
QUITT2.QRP	QUITT2_ADV.QRP
QUITT2_P_REQ.QRP	QUITT2_P_REQ_ADV.QRP

Authorize the document for the last required level. Now the system sends out a last email to the creator of the document:

Now the document can be processed as usual.

The same procedure is used for internal requests as well.