MICROS Materials Control

MICROS RES 3700 POS Interface

Product Version 8.8.00.51.1491

Author: Joerg Trommeschlaeger
Department: Materials Control
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**Introduction**

This document will describe the interface possibilities between Materials Control and

- … the MICROS RES 3700 POS application
- … the MICROS RES Enterprise Management

The interface is used to transfer the sales information to the cost control modules and to enable the stock reduction based on recipes or articles linked to the POS sales items.

Please contact the local support team before doing any change on the Materials Control System Configuration.

The POS server(s) must be prepared for using/serving the interface. Please contact the local RES/EM specialists.

This manual was created using Materials Control 8.8.00.51.1491. Some of the mentioned functions are not available in older versions of Materials Control.

**Interface Components:**

The interface consists of mainly 2 different parts:

**Sales Master Data Transfer:**

When working with MICROS RES 3700: The sales items will be transferred via ODBC from the RES server to the Materials Control Database.

When working with MICROS Enterprise Management: The sales items will be transferred via ODBC from the EM server to the Materials Control Database.

For both systems there is no option to send any information from Materials Control to RES or EM.

**Revenue Transfer:**

In both cases, RES 3700 and EM, the revenue needs to be transferred from the local RES 3700 server(s) to Materials Control.

Here several ways are possible:

- Data transfer via ASCII flat file export/import
- Data transfer via ODBC
- Data transfer via POSWebService

Each variant will be explained below.
Installation

**ODBC Connection**

In all cases an ODBC connection is required.

The ODBC connection between the Materials Control system/server and the RES/EM server needs to be established. This connection must be created on the PC which will import the sales items and, depending on the used variant, also the revenue transfer.

The MICROSOFT Windows Control Panel allows such connections using the ODBC Data Source Administrator:

![ODBC Data Source Administrator](image)

Click on the button **Add** to create a new ODBC connection.

![Create New Data Source](image)

In the driver list please select the "Adaptive Server Anywhere 9.0" entry and click on **Finish**.
The next screen offers the definition of the connection details:

Please define the configuration as shown above and click on the tab “Login”.
Activate the option **Supply user ID and password** and enter the database connection details. Please contact the RES support team for the used password.

Once done, please switch to the tab “Database”: 
Here the name of the server needs to be defined. The syntax is sql[MACHINE_NAME], where [MACHINE_NAME] must be replaced with the computer name of the MICROS server.

Make sure that the option _Stop database after last disconnect_ is **NOT** activated.

Once done, please switch to the tab “Network”: 
Here the TCP/IP connection must be configured. The syntax is \texttt{HOST=\text{[Machine\_Name]}}
, where \texttt{[Machine\_Name]} must be replaced with the computer name of the MICROS server.

Once done, please switch back to the tab “ODBC”: 
Here on the first tab the connection should be tested.

![ODBC Configuration for Adaptive Server Anywhere](image)

Click on the button **Test Connection**.

The system will ask for a confirmation regarding the AUTOSTOP parameter, which should be answered with **YES**.

![Adaptive Server Anywhere](image)

Now the connection will be tested.

![Note](image)

If the message above is shown, the test was successful and the connection could be used.

Open the file SQL.INI in the Materials Control installation directory. Scroll at the very bottom and search for the section `[odbcrtr]`.

If not existing, please add this header.
This section is used to connect via ODBC to other data sources via ODBC. Here now the new connection string for the above created ODBC connection must be added.

```
[odbcrt]
remotedbname=FMEXCEL,DRIVER={Microsoft Excel Driver (*.xls)};DBQ=fm_excel.xls;DefaultDir=c:\temp\ReadOnly=
remotedbname=M3700,DSN=M3700
```

Save and close the file.

**POSWebService**

If the revenue is transferred via web service, the Materials Control POSWebService must be installed. For details please consult the detailed documentation “50.9_MC_Manual_Installation_POSWebService”.
Interface Setup

In the menu select Production > POS Systems > Install POS Interface:

**Description of the screen:**

**Interface Name:** Name of the selected Interface. Next to the interface name the status indicator is shown.

**active:** As long as no link with a Device exists, the interface can be deleted (using the X). As soon as a link with a Device exists (data flow), the following message is shown once a user tries to delete the interface:
**Tab Edit Interface:**

**POS /Vending System:** List of all available interfaces

Click on MICROS 3700 and the right half of the screen will switch to the tab ODBC.

**Database:** Enter the name of the ODBC Connection to the database (here M3700).

**User:** Enter the username (Custom)

**Password:** Enter the password (Custom)

Not active, please configure the ODBC Connect manually as described above.

Click on **Install ODBC** to save the interface configuration. The system will confirm the configuration with the following message:
The system tries now to connect to the database. If the connection cannot be established, the ODBC connection is not setup properly. The following message shows that the connection is not correct:

![Error message](image)

In this case you should check your ODBC Setup.

In case of a successful connection the indicator displaying the IFC ID next to the interface name should turn to green.
Currency Settings:

This function allows to handle revenues delivered in a different currency than the system currency.

There are several countries where e.g. the POS System is operated in the local currency, but Materials Control is operated in US $.

In such a case simply activate the radio button “Foreign Currency” and select the currency from the list. This selector shows all currencies created in the module Master Data > Foreign Currency:

The option “Fixed Rate” allows to use an independent rate entered here in the setup for the conversion.

During the revenue import the application will convert all monetary values using either the rate defined in the foreign currency at the moment of processing or the entered fixed rate.
Using POSWebService:

If the revenue should be transferred via the POSWebService, the parameters explained below must be activated:

- Activate this checkbox to configure the application to read the revenue transported by the POSWebService

- Here the POS Sequence used by the POS System must be defined. For further details please check the POS Export documentation.

Now switch to the tab “Payments”: 

☑ Process revenue via interface table
Click the button `New` and fill the details as shown above.

Confirm with `OK` and save the interface.
Configuration

System Parameters

There are several parameters influencing the behavior and the functionality of the POS Interface. The following section will describe the most important ones.

System > Configuration > FBV8.INI > [PRODUKT] > MWSTFROMKASSE:

This option configures the handling of VAT during the revenue import.

- If T: The system receives the VAT used for the transaction from the POS system
- If F or blank: The revenue data does not contain any VAT information. In this case the system will use the tax rates defined in the Major Group.

System > Configuration > FBV8.INI > [PRODUKT] > MULTIPLEPOS:

This option enables the possibility to handle multiple POS Systems connected to one Materials Control.

- If T: Two or more POS Systems are connected. This allows to use e.g. the same PLU for different POS Systems / POS Interfaces. The system does not create recipe headers during the Sales Item Import.
- If F or blank: Just one POS System is connected to this Materials Control.
System > Configuration > FBV8.INI > [PRODUKT] > MANUALPRODUCTLINK:

<table>
<thead>
<tr>
<th>Option: Change Configuration Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Configurations File: fbv8.ini</td>
</tr>
<tr>
<td>Section: PRODUKT</td>
</tr>
<tr>
<td>Item: MANUALPRODUCTLINK</td>
</tr>
<tr>
<td>Value: T</td>
</tr>
<tr>
<td>Information: If T: Products can be linked directly to stock articles instead of using recipes</td>
</tr>
</tbody>
</table>

This option allows to change the link between Products and Recipes.

- **If T**: During the import the product is created and in addition also a Recipe Header as usual. The user now could change these links in the module “Manage Products”. This may be required if certain articles are purchased and sold as they are (no recipe is created/required). This link is valid for the selected product in all sales locations.
- **If F or blank**: Manual linking is not possible.

(See also MC_Changes_in_MC_8_6_6_10, Chapter 119)

System > Configuration > FBV8.INI > [PRODUKT] > SALESLOCATIONLINK:

<table>
<thead>
<tr>
<th>Option: Change Configuration Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Configurations File: fbv8.ini</td>
</tr>
<tr>
<td>Section: PRODUKT</td>
</tr>
<tr>
<td>Item: SALESLOCATIONLINK</td>
</tr>
<tr>
<td>Value: T</td>
</tr>
<tr>
<td>Information: If T: Different links to Recipes/Stock Articles per Sales Location can be created</td>
</tr>
</tbody>
</table>

This is an enhancement to the above explained MANUALPRODUCTLINK.

- **If T**: The manual link process could be handled per sales location.
- **If F or blank**: The link is valid for the selected product in all sales locations.

(See also MC_Changes_in_MC_8_6_6_10, Chapter 120)
This option creates a notification email after POS Revenue Import.

- **Syntax:** `T,[email@server.xx]`
  - `T` activates the functionality in general
  - `[email@server.xx]` should be replaced with the email address of the recipient. Multiple email addresses should be separated with semicolon (`;`).
  - Example: `T,[email1@server.xx];[email2@server.xx]`

- **If F or blank:** no email will be generated

**NOTE:** This function requires a correct setup of the [MAIL] parameters in the configuration!
Devices

Go to Production > POS Systems > POS Devices

Devices here in this case are our sales locations from the POS System. Please create here one entry for every sales location from the POS System.

Description of the screen:

Device: Name of the selected sales location.

active: As long as no link with other data exists, the device can be deleted (using the X). As soon as a link exists (data flow), a Device can be deactivated only! The deactivated Device can be reactivated by clicking again the Active / Inactive button and saving.

Tab Edit Device:

Number: Number of the sales location from the POS System (MICROS 3700 -> micros.rvc_def.obj_num)

Cost Center / Store: Select the cost center / store for this Device

Cluster: Select entry “Revenue Center” from the selection box.
Menu: Empty for MICROS 3700

POS Interface: Select your created interface from the selection box.

Click on \(\text{\textbullet}\) to save the configuration of the devices.

### Major Groups

The major groups are the link between purchase and sales. Most of the analyses are made on major group level. A unique sales VAT rate must be assigned to a major group in each case. For a better overview there is still another higher hierarchy level: the over groups. We have to assign the POS Major Groups to the Over Groups to relate the revenue to our purchase cost. Every POS Major Group must be created in Materials Control as a Major Group or linked to an existing one.

#### Description of the screen

![Screen shot of Major Groups interface]

**Major Group:** Enter the name of the major group.

**active:** As long as no link with other master data, the group can be deleted (using the \(\text{\texttimes}\) ). As soon as a link exists (data flow), a group can be deactivated only! The deactivated group can be reactivated by clicking again the \(\text{Active} / \text{Inactive}\) button and saving.

**Assigned to:** Select the type of assignment. This will also filter the view for the next field.

**Over Group:** Select the over group for this major group.
**Account (Revenue):** Enter the account code for revenue / result from your back office system (only required if B/O IFC is installed).

**Account (Consumption):** not required Sales Major Groups

**Contribution %:** Not in use anymore!

**Code for POS:** Enter the code for the sales major groups from the POS system (micros.maf_grp_def.obj_num). Multiple groups can be separated by comma (,).

**No Billing:** Do not tick for Sales Major Groups

Switch to the tab **“Tax Settings”:**

Here the default tax definition must be defined.

**Sales Tax:** Radio buttons; Select the sales tax rate for the sales major group from the POS.

This sales tax is used for the default calculation in the Products/Recipes Cost Overview.

**Alternate Sales Tax:** If a beverage tax or a similar operating tax is used, you can assign the tax rate here.
Recipe Groups

Depending on the definition of the interface recipes headers are created automatically during the Sales Item Import. There is at least one default recipe group required which will be used to identify new recipes.

Besides that various groups can be defined to sort the recipes (Soups, Main Dishes, Cocktails, Wine…..).

Description of the screen

Recipe Group: Enter the name of the Recipe Group.

active: As long as no link with a Recipe exists, the group can be deleted (using the ). As soon as a link with a recipe header exists (data flow), a group can be deactivated only! The deactivated group can be reactivated by clicking again the button and saving.

Tab Edit Recipe Group:

Grouping Number: Here a sorting sequence for grouping could be entered.

Grouping Name: Here a sorting name for grouping could be entered.
Waste / Usage Groups

The revenue import from MICROS 3700 and MICROS EM (via local 3700 servers) was enhanced to support different usage types.

When configuring Waste in the local 3700 installations different reasons could be defined.

These reasons now can be used to identify the different usage types in MC as well and book them to different Usage Groups.

In Materials Control matching Usage Groups must be created for these reason codes where the reason number must be used as Usage Group key.

All waste transactions having no reason number or no corresponding usage group in MC will be booked to usage group 100.
Import POS Articles

During the import all sales articles from POS will become Products in Materials Control. These Products could be either linked with recipes or directly with stock articles.

The application will create the products for each revenue center.

Example:
- 1200 Sales Items in POS
- 9 Revenue Centers
  - 10800 Products in Materials Control

This is required since …
- a) … the link (recipe / stock article) could be different for each revenue center
- b) … the cost of the linked recipe / stock item could be different in each cost center
- c) … the sales price could be different in each revenue center
- d) … the reduction location could be different for each revenue center

At first import the application will create all products for all revenue centers. As a result of this the first run could take quite a long time.

Afterwards new and changed records only are created.

The Product import is the pre-requisite for the revenue processing. Imported revenue can be booked only for records where the related products is known and linked in Materials Control. Unknown and/or unlinked records will remain in the buffer.

The following will describe both processes, manual and automatic import of Sales Items.
Manual Import of Sales Items:

Go to Production > POS Systems > Import POS Articles

Before starting the import the first time some smaller configurations must be done:

Switch to the tab “Settings”:

![Image of the Settings tab]

**Default Settings for Creating Products**

- **Recipe Group**: Select here the recipe group “New Recipes”.

All other fields on this tab can be ignored.

Also all other following tabs can be ignored for this interface.

Please click on the button ![Save Options](Save) and switch back to the tab Buffered Data.
Description of the screen

Tab Buffered Data:

This screen is the main screen for the data import. Here the import itself could be started, imported records could be reviewed, deleted or booked.

Here we find the following buttons:

Read Article Data

The interface selection list is shown.
Select the interface and click on **OK** to start the import.

The system now connects to the POS server via ODBC and reads the records for all devices having this interface assigned.

- Depending on the number of products this can take a while.

After the import a message is shown:

Confirm with **OK** to close the information screen.

The error log information will be displayed.

- This log file shows errors as well the products to be created.
Depending on the amount of data, especially at the first import, the following message could be displayed:

![Image of log message]

The amount of data is simply too big to be displayed in this log window. During the first import this usually occurs, since all records imported are written into the log.

Confirm with OK to close the message and to return to the main screen.

The log file is stored in the \Log\ directory in the Materials Control installation folder, named R_YYMMDD.00x, e.g. R_130621.002 for the second import done on June 21st 2013. The file can be viewed with any usual editor.

![Image of log file]

Click Cancel to close the log screen.

The grid in the tab Buffered Data now shows all records to be created:
Please find below the description of the table.

**Table:**

PLU: PLU Number from the POS System

Name: Sales Article Name from POS

Short Name: Short Description Name from POS

Default Price: Standard Price

Outlet Price: Outlet specific Price

Outlet (Device No.): Outlet Number

MGroup POS: Assigned Major Group

POS Pgr Code: Family Group Code from POS (Product Group in Materials Control)

POS Product Group Name: Family Group from POS (Product Group in Materials Control)

POS Stat. Code: Statistic Group Code from POS

POS Statistic Group Name: Statistic Group from POS

Tandem: Not used for MICROS 3700

Tandem Cnt.: Not used for MICROS 3700

Tax 1: Tax Rate Information for the sales article
Outlet Tax (Tax2): Not used for MICROS 3700

Validity Information: This field is used for information about the article. If the article cannot be imported the reason will be displayed here. Possible reasons are: Major Group is not linked, Default Recipe Group is not defined, etc…)

- **Delete Buffered Data**: Using this button all imported records could be deleted from the buffer.
- **Book Buffered Data**: To book the records (create products) click on this button. This can take a longer time (depending on the number of records).

Creating/Updating Products ...

<table>
<thead>
<tr>
<th>Record</th>
<th>43</th>
<th>64</th>
</tr>
</thead>
<tbody>
<tr>
<td>6%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

All records which cannot be booked, will remain in the buffer.

- In this example the application found four records having PLU and some other flags configured, but no sales item name. Since that is essential, these cannot be created. Use the button **Delete Buffered Data** to remove these records. Contact the POS administrator to either complete the records or remove them from the POS System.

Once completed, the revenue for these products could be imported as well. Please check the configuration of the link handling (MultiplePOS vs. ManualProductLink vs. SalesLocationLink)!

Revenues for unlinked products will not be imported!
Automated import of Sales Items:

The sales item import for the MICROS 3700 Interface can be automated as well. The module "Scheduler" offers a job for this.

Before scheduling the job, some recommendations should be considered.

- The job should run daily or multiple times a week.
- The job should run during the night, not to influence the network / POS performance.
- The job should run before the revenue import.
- The job should run after the POS EOD procedures.

Go to System > Scheduler and click on the button "New Job":

- In the drop down list select the job type “Read and Book Revenues from POS”
  - Select the Start Date and Time and all other daily/periodic settings.

The system now offers a 2nd tab for the detail configuration:

- Here select the correct interface record and activate the option “Read & Book Art.”
It is not recommended to activate the options “Read POS” and “Book POS”, both related to revenue import, in the same task as well. These should be scheduled in a separate job, executed after successful completion of this one.

Switch back to the first tab and click on [OK] to close the Job Configurator and return to the Scheduler main screen.

Here click on [ ] to save the job.

Check the tab “Service Setup”:

In some environments it could be required to stop and restart the service once.
Revenue Import from POS

Looking at the revenue import two different ways must be considered.

a) Classic EOD Revenue Processing
   After completion of the MICROS RES 3700 EOD Procedure the revenue can be imported. Materials Control will connect to the POS database and read the prepared records from the into the interface buffer.

b) Revenue Processing via POSWebService
   When using the POSWebService, the revenue will be exported by the POS system multiple times a day into a specific interface table in the Materials Control database. The Revenue Import process will read the records from this table into the interface buffer.

Similar as the Sales Item import also the revenue import could be started manually as well as processed as a scheduled job.

Manual Import of Revenue

Go to Production > POS Systems > Read/Book POS Revenue

Description of the screen

This is the main working screen. Imported (and remaining unbooked) records are listed here. Besides this several functions are offered.
Tab Management System:

**Table:**

**From:** Revenue Date for the imported record set

**To:** In case of multiple revenue dates within record set this field shows the end date.

**Revenue:** Revenue amount

**Information:** Specific information, depending on the IFC features, blank for MICROS 3700

**POS Reading:** Sequential naming of the import

**Read at:** Date Stamp of the import

**Changed by:** User, who has done last changes.....

**at:** and when.

**Created by:** User, who has imported the revenue.....

**at:** and when.

At the bottom of the screen you can see the following buttons:

- Click on this button to open older revenue protocols.

The protocols are named with the following conventions:

B_yymmdd.001 to 999

B_ Bookings from POS

The following number combination displays the date of import

yy year

mm month
dd    day
.001 sequential numbering per day

Select the file to be shown.

The application shows …
 … per day
 … per Sales Location
 … per transaction type (revenue / usage)
… one record

The function  allows separating the records and booking them one by one in the main screen.

Click on  to return to the main screen.
Delete: Click on this button to delete imported, but not booked revenue.

Confirm with Yes to remove the record (no undo!) or click No to return to the screen without deletion.

Import: This button will start the import process.

Select the interface to read and click on OK.

When using the classic way, the system will now try to connect to the POS Server and read the revenue from there.

When using the POSWebService, the system will read the records out to the interface table within the Materials Control database.

In both cases the system will mark the records as "read" to avoid double reading.
The log file is displayed, showing the number of records (here 0.000.003 = 3 records) and the location of the source backups.

Click **Cancel** to close the log screen.

- Revenue for unknown sales locations (no matching device for the RVC number) will remain in the buffer
- Revenue for unknown sales items (no Sales Article Import since the creation of these articles?) will remain in the buffer.
- Revenue for unlinked products will remain in the buffer

Remaining records could be booked after resolving the issues or could be deleted using the **Delete** button.
Tab Error Protocol:

This screen contains detailed error information for all position which could not be booked.

Tab Fast Entry of Sales:

This function allows to book revenue for a specific Product / Sales Item for multiple revenue centers.
Tab History:

On this screen you can act on already processed revenue.

**NOTE: Any changes done in this module cannot be rolled back!**

![Image of micros interface]

- **Show Details:** If you tick this box the entries will be displayed per reading, if this box is not marked the information is displayed per revenue date.

- **Date from 01.01.2001 to 13.12.2010:** Here you can specify the sales date to load (e.g. all sales for June 18th, 2012).

- **Load:** Click on this button to load the selected records.

- **Correct:** After loading the records you can mark one or more records. Click on this button to create negative revenue. If you book this negative revenue on the main screen the stock on hand will be increased!

- **Delete Records:** Click this button to delete old revenue entries the stock on hand will not be changed!
Delete Record

Delete all information until \( 21.05.2013 \)

Warning: This operation may take some time!

OK  Cancel

Specify the date and click on **OK** to proceed or **Cancel** to return to the previous screen without deletion.

**NOTE:** This action cannot be rolled back!
Automated Import of Revenue

The import of revenue can also be automated.

Before scheduling the job, some recommendations should be considered.

When using the classic way:
- The function needs to connect to the POS database
- The function will search for prepared records. Please check with the POS administrator if these will be created after EOD only or multiple times a day. Based on this information the job should be scheduled!
- All available records will be processed and marked as read.

When using the POSWebService:
- The function will read from the internal Interface table.
- All available records will be processed and marked as read.

Go to System > Scheduler and click on the button "New Job".

- In the drop down list select the job type “Read and Book Revenues from POS”
  - Select the Start Date and Time and all other daily/periodic settings.
- The system now offers a 2nd tab for the detail configuration:
Here select the correct interface record and activate the option “Read POS”
to schedule the import from the source into the interface buffer.
Mark the check box “Book POS” if the imported revenue should be booked
through the scheduler without the option to review.

Switch back to the first tab and click on  to close the Job Configurator
and return to the Scheduler main screen.

Here click on  to save the job.

Check the tab “Service Setup”: 
In some environments it could be required to stop and restart the service once.