MultiCash® V4 - Changes

Changes to version 3.23

February 2018 – Version 3.4

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Preliminary remarks

This document describes the key enhancements of the product platform for MultiCash 4 as overall concept.

It is addressed to
▪   Users
▪   Banks
▪   Omikron Partners
▪   as well as the internal divisions at Omikron, which accompany the development

The document shall be used to explain to all parties involved in clear form the functional enhancements.

In contrast, it shall not present all changes in their entirety. All changes (also details) are documented in the Omikron Change Request database "Meldung", which is used to create a complete list of changes for each release.

History of changes

Date	Version	Changes	Created by
18.03.2016	2.0	Chapter 3.3.1 revised Chapter 3.5.3 enhanced Detail corrections	Helmut Knester
08.04.2016	2.1	Chapter 3.1.1 revised	Helmut Knester
18.04.2016	2.2	Chapter 3.5.2 detil corrections	Helmut Knester
22.04.2016	2.3	Chapter 3.4.6 revised	Helmut Knester
29.06.2016	2.4	Chapter 3.1.2 revised	Helmut Knester
30.08.2016	2.5	Chapter 5.1 added Minor changes	Tobias Wagner Helmut Knester
01.02.2017	2.6	Chapter 5.1 enhanced Minor changes	Helmut Knester
10.02.2017	2.7	Chapter 3.6.1 enhanced	Helmut Knester
09.03.2017	2.8	Chapter 1.2.2.3 enhanced Chapter 1.2.3 revised Chapter 5.1.1 enhanced	Helmut Knester
16.03.2017	2.9	Chapter 1.2.1 enhanced	Helmut Knester
04.05.2017	3.0	Chapter 1.2.2.1 revised Chapter 5.1.1 revised	Helmut Knester
03.07.2017	3.1	Chapter 1.2.2.3 revised Chapter 5.1.1 revised	Helmut Knester
11.08.2017	3.2	Chapter 5.3.1.2 revised	Helmut Knester
10.11.2017	3.3	Chapter 3.4.7 added	Helmut Knester
02.02.2018	3.4	Chapter 1.2.2.3 revised Chapter 3.3.4.3 removed Chapter 3.4.1 revised Chapter 3.6.1 revised Chapter 3.6.2.2 revised Chapter 3.7.2 revised Chapter 4.2.1 revised	Helmut Knester

1   General information

1.1   General remarks

MultiCash 4 is based on a new architecture of the system platform and has been largely redeveloped. For this reason, all additional modules need to be updated.

The development has been carried out according to the following basic guidelines:

1. Intuitive operation by current user interface with standard design and high recognition value.
    - This objective required some basic restructuring of the navigation. In the conversion phase, **Chapter 5.4 Comparison of menu structures Version 3.2 / Version 4.0** will help you.
    - User focus: "Hide" complexity necessary for large international corporates by new operating concepts (cf. also **Chapter 2.4 Usability concept**)

2. Simplification and flexibility in the operation by
    - Internationalization: Optional character sets for data contents
    - Performance optimization: Support increasing amounts of data
    - New data model for simplified master data definition (cf. **Chapter 3.5 Master data**).

3. Optimizations for installation, operation and support by
    - Simplified implementation also for complex environments. During the configuration **Chapter 5.2 Check list for the system configuration** will help you.
    - Reduction of the support effort also for an increasing number of users and clients in the network
    - Support of the support team in case of problems by automated information provision by user's business departments
    - Reduced update costs by integrated software distribution (optional)

    Chapter **5.1 DATA MIGRATION FROM VERSION 3.23** will guide you through an update installation.

4. Hightest possible security by orientation to current security standards, e.g.
    - IT Basic protection according to BSI
    - ISO/IEC 27001
    - PCI-DSS (Payment Card Industry)
    - SOX (Sarbanes-Oxley Act , USA)
    A compilation of the key changes in this area can be found in **Chapter 5.3 Overview of security-relevant changes.**

    An external security expertise for supporting internal checks is attached to the installation package.

1.2 Important remarks – Please take notice!

1.2.1 Supported operating system environments

The new generation is based on current Windows programming interfaces and for this reason can only be deployed from Windows 7 or Windows Server 2008 R2. For more detailed information on this subject, please see the Technical Information attached to the software package.

1.2.2 No longer supported functionalities

Modules and functionalities for obsolete procedures are no longer supported. In addition, defined detail functions have also been removed which match one or several of the following criteria:

1. Unnecessary functional complexity or obsolete procedures
2. Unnecessary technical variants
3. Bad relationship between use and implementation/maintenance/support effort

1.2.2.1 Communication

For the HTTPS communication (EBICS), now the transport methods TLS 1.1 and 1.2 are also supported with the currently securest data encryption. The outdated EBICS protocol version H002 is not supported any more.

Obsolete transport methods (X.25, Modem, ISDN) and communication methods (in particular BCS-FTAM/FTP and ZVDFÜ) are no longer supported.

Session types no longer used in practice (in particular for the local domestic payment formats of the SEPA region) are no longer delivered.

The communication logs output in text files per session type have been removed (function "Administration/Logs/View or Print", files DFUE_<Session type>.PTK). Instead, an output from the output history can be used.

1.2.2.2 Proxy support

During the connection establishment, the authentication methods Basic, Digest and NTLM are supported as so far. For using these methods, the log-in credentials (user name and password) need to be maintained.

Additionally, during the connection establishment, the Negotiate authentication is also supported. For this method, no login credentials need to be stored. Instead, the logon of the current Windows user is used here by Kerberos.

Remark: If the proxy prefers the Negotiate method, the central proxy user defined in the system parameters is no longer used. Then all users need to trigger the communication which possess appropriate proxy permissions.

Also the download of the configuration data and bank tables and the communication for the automated program update as well are made consistently using the proxy information defined here.

1.2.2.3 Application modules and functions

1. National payment modules of the SEPA area are replaced by the SEPA module.

2. The check programs for payment files are replaced by an enhanced integrated format check on import for transmission (cf. Chapter 3.4.2.2 Defective files).

3. Account statements: The manual entry of account statements has been removed, as the retrieval of electronic account statements is meanwhile offered nationwide.

4. Plan data: The buttons "Delete prompt …" in the plan data dialog and the menu items "Plan data reconciliation" and "Manual plan data reconciliation" have been removed and replaced by the extension of the automatic reconciliation with the "blurred" recognition of matching transactions.

5. Funds management: Placing of orders by fax has been removed, as no longer up-to-date.

6. Sub-account concept: The function for generating sub-account statements from account statements of the main account has been removed, as we assume that in practice account statements are always delivered for all accounts by the bank.

7. Backup: The data files are in the future located in a directory branch which is, if applicable, no longer accessible by the application, but which can be completely backed up. For this reason, no backup function is offered any longer within the application.

8. All payment modules: Single-bank oriented file creation is no longer suppported generally. The payment files are always included in the communication manager and thereby in the database. For exporting payment files, a central function "File export" can be used in the communication manager.

9. IBAN finder: The conversion to IBAN account numbers has meanwhile been finalized. For this reason, the IBAN finder is only available without graphical user interface for automatic conversion in special cases (e. g. contained for converters or automatic creation of account master data). Also the support of IBAN upload/download files has been removed.

10. Communication manager, protection against manipulation: The checksum algorithm PRF2 has been removed, as it does not meet the current requirements.

11. Communication manager, file display: The HTML and "Classic" display variants for output files have been replaced by a new standardized display.

    Remark: For this reason, also outdated and insecure checksum variants such as the German DTAZV totals record or the checksum PRF2 in the payment formats for the Czech Republic and Slovakia are omitted.

12. Logon with signature: In the previous version, the variant "Logon with ES" has been supported for the logon. However, this increases only the security if an external signature medium is used (i.e. USB stick or Hardware ES). This only applies to relatively few users, as not all have signature authorizations. In addition, these work often with database ES and for this the option needs to be suppressed. As this quite high complexity is accompanied by an efficiency for only comparatively few applications, this option has been removed.

13. Signature versions before A005/M005 are outdated and should not be used any more.

14. Storing the EBICS authentification keys on an external medium caused many support cases in the past and therefore will not be supported any more.

15. The signature option "Private Key Server" caused many support cases in the past and therefore will not be supported any more.

1.2.3   Update installation to version 3.23.002

As the program structure is completely redesigned, a new installation is made in a new program directory. Within the framework of the installation, the data from an existing version 3.23.002 can be automatically transferred.

Thereby, the previous version still remains ready-to-operate. In principle, it is recommendable that you make yourself first familiar with the new version while continuing to work with the previous version. In this process, you should absolutely keep the following in mind:

1. Make sure that transmissions to your banks are not carried out in parallel in both installations! We recommend to deactivate the communication in the non-active environment or better to deactivate the transmission parameters.

2. The data migration is made only once during the new installation. In case you want to add once again data from the old environment at the end of the preparation phase, you should completely delete and reinstall the new environment.

During the conversion to the new version, some points need to be observed in principle which are described in detail in Chapter 5.1 DATA MIGRATION FROM VERSION 3.23.

Attention: If you define the installation path, you don't choose the path of an existing previous version!

1.2.4 Services / Database Engine

The new software uses a new Database Engine (ZBase32 or ZBase64 of Generation 10). This also supports older applications. If a database service is installed for your previous version, this must first be uninstalled with the setup of the old installation. Then you can install the service of the new program version which can then also be used for the older software environment.

1.2.5 Configuration settings

Please do not make any changes any longer to the CSUB.PRO profile file and all other configuration files (INI files). In case of problems this makes the support difficult, In addition, the INI files are overwritten during the next program update, so that your changes are lost. If in this area still changes should be necessary, please use for this the new system parameters in the branch "Configuration files" (cf. Chapter 3.8.1.1).

2   Platform architecture and installation

2.1   Technical Information

1.   New Database Engine

A new ZBase database engine of generation 10 is integrated with various enhancements. In particular, the index administration has been optimized for the processing of large amounts of data.

2.   Implementation on the basis of current environment components

The development is made on the basis of MFC 11, so that the current Windows programming interfaces can be used. The system libraries are installed in the directory of the application, independent of the particular operating system environment. Thereby, no components need to be installed any longer in the Windows system directory.

3.   Data management in UNICODE

The internal data storage is made in UNICODE generally. This allows all character sets to be used in parallel.

4.   Storage of all data in the database

All data (even the payment and account information files) are stored in the database. This allows simplified security and operational concepts.

2.2   Application structure and data management
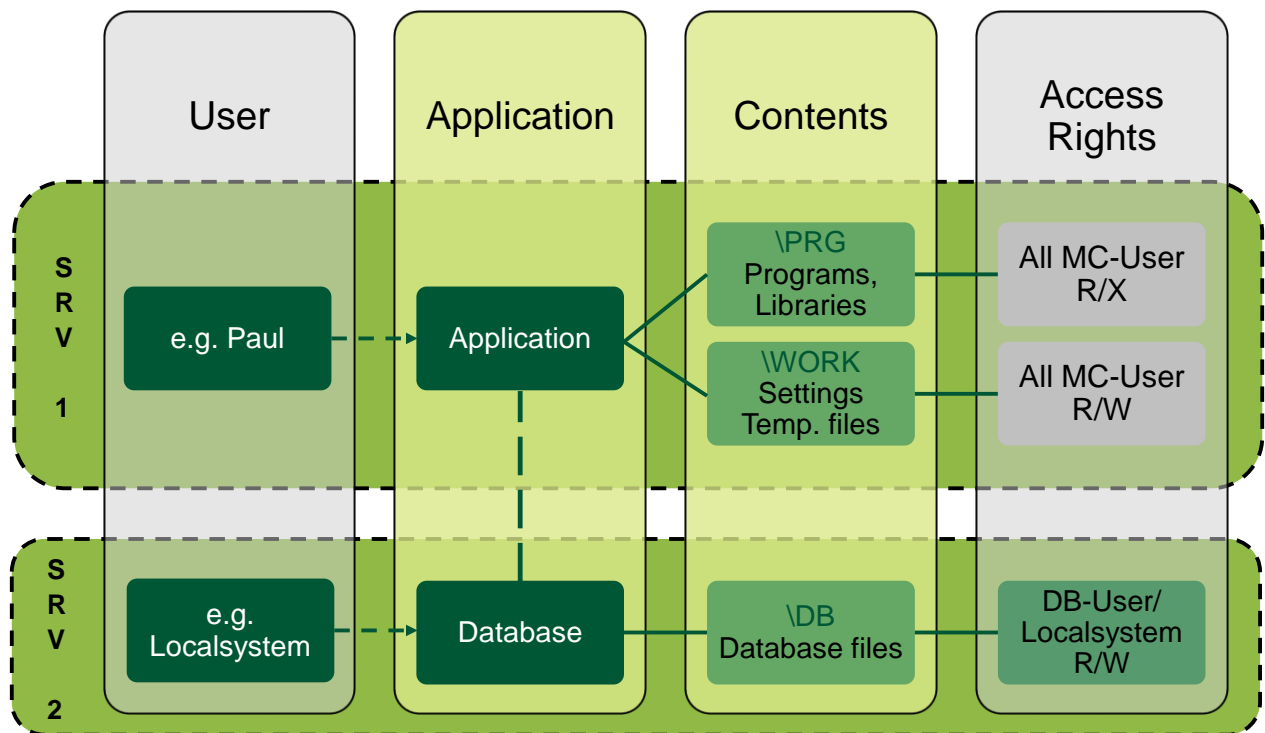
2.2.1   Program and data directories

All application data are stored in the database and program and data directories are consistently separated. Therefore, the directories can all be configured with sophisticated access rights. Even the backup can be differentiated very simply by directory name:

No.	Directory	Content	Acess rights	Backup
1.	PRG	Programs	Read, Execute for all application users	After each installation
2.	WORK	Work data, user-specific dialog settings, general configuration files (IBAN.INI, EURO.INI), interface definitions	Change, Read, Write for all application users	Daily or weekly
3.	DB optional on a separate server	Database files	Change, Read, Write for the database user (e. g. local system account)	Daily

This new structure has the following impacts on the configuration and operation:

1.   There are no data paths any longer in the application, thereby the Client installation is simplified:
   - No standardized drive letter required any longer
   - Mixed simulataneous access using drive and UNC path possible
   - Simple "moving" of installation

2.   Complete access protection for payment files with confidential content, e.g.wage/salary

3. Support of a highly secure configuration variant in the setup program (cf. Chapter 2.3.3.3 Server installation with dedicated database server), which allows the database directory to be completely separated from the application on a separate server:

	User	Application	Contents	Access Rights
S R V 1	e.g. Paul	Application	\PRG Programs, Libraries	All MC-User R/X
			\WORK Settings Temp. files	All MC-User R/W
S R V 2	e.g. Localsystem	Database	\DB Database files	DB-User/ Localsystem R/W

Remark: Due to the storage of all data in the encrypted database, some measures of experienced users and system consultants as, for example, the import of data from other installations (database tables, key files, BPD files, system log) are no longer possible.

For the data exchange with the support team for analysis purposes, a new Support function is now available (cf. Chapter 3.9.2 Support).

2.2.2   Data encryption

2.2.2.1 Overview

Due to the new data encryption concept, all application data (even the payment or account information files exchanged with the banks) are stored in the indiviually encrypted database, to which only the application has access with its internal key. In the following, this concept is described as "internal" encryption and is always active (1).

The communication between application and database engine is made using a separately encrypted data channel (2).

The outside world of the user's system environment is separated from this. The data exchange between internal and external domain is only made by data import and export. This data exchange can also be made in encrypted form. For this, a separate concept and own keys analog to the procedure in the predecessor version are used. In the following, this concept is described as "external" encryption (3).

In an overview, the overall system presents itself as follows:
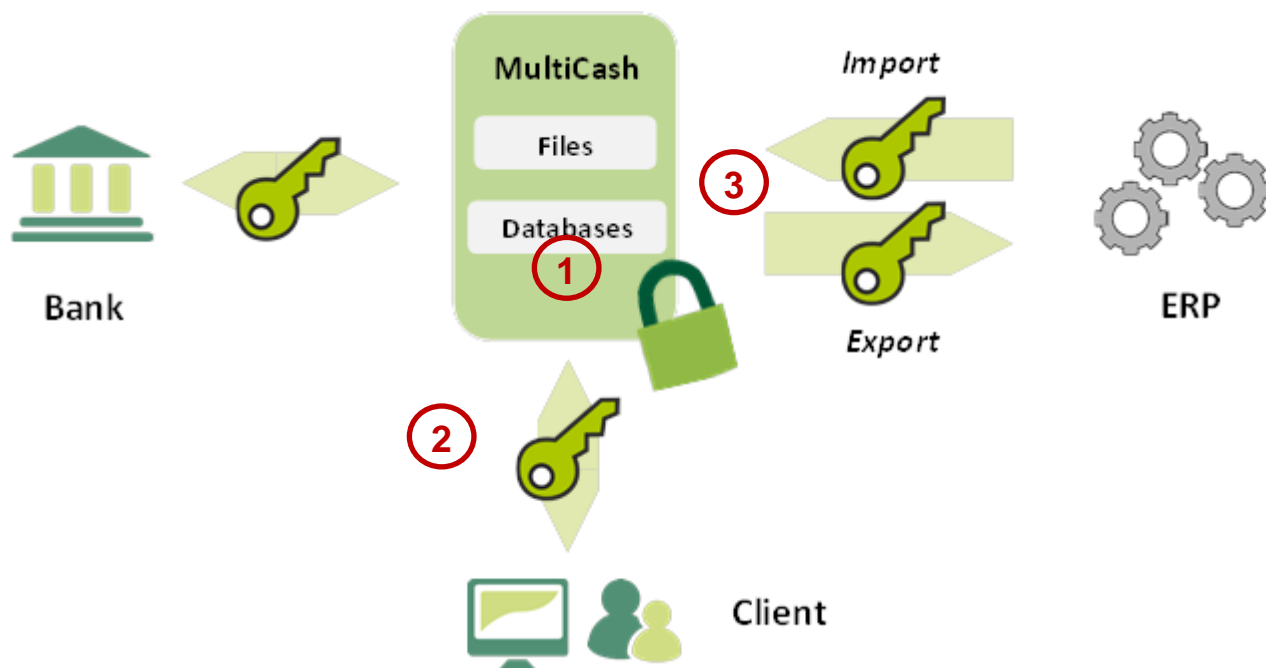
2.2.2.2 Internal encryption

For the internal encryption, a key is generated during the installation and stored in a secure key container in the program directory.

2.2.2.3 External encryption

The external encryption is optionally used for the data exchange with third-party systems, i.e. for data import (e.g. payment files for transfer) and data export (e.g. account information for booking systems). Details for this can be found in Chapter 3.8.2 Encryption)

2.3   New installation procedure

2.3.1 General objective

The installation program is signed and identifies itself with a certificate. If applicable, in case of activated user account control an administrator is required.

The installation procedure has been basically revised according to the following guidelines:

1. For the installation, first all necessary data are prompted which can be checked and corrected until the end by scrolling between the dialog pages. Only after confirming the summary at the end, the actual installation procedure starts.

2. The additional documents included in the installation package are displayed to the user at the beginning of the installation, as they contain important notes therefor.

3. Due to the intuitive navigation and notes in detail, the system can also be installed by untrained users.

4. Error situations are avoided or identified by appropriate checks and the user is informed.

5. Update installations (also from complex server environments) shall be executed as completely as possible in the installation wizard without the necessity of separate preparations.

6. The installation is logged in detail in order that possibly occurred problems can be exactly located (…\<program directory>\setup.log).

The following chapters describe selected steps of the installation, for which explanations are reasonable.

2.3.2 Select directory

The program directory can be addressed optionally using a UNC path or a drive mapping, even mixed on multiple computers in the network.

Remark: As this application is nearly exclusively operated as central server application for multiple users, the general access is always made using the program path; i.e. working and database directory are in principle located relative to this. For the access, a link to the program is sufficient. And even a move of the complete environment to another server can be completely made without any problems by moving the entire program directory.

For this reason, a typical client installation in the local Windows program directory with data storage in ProgramData directory is not supported.

2.3.3 System configuration

2.3.3.1 Standard installation without database service

The simpliest installation creates the application environment in the indicated path and configures the system in a way that the database engine is started on the current computer together with the application:
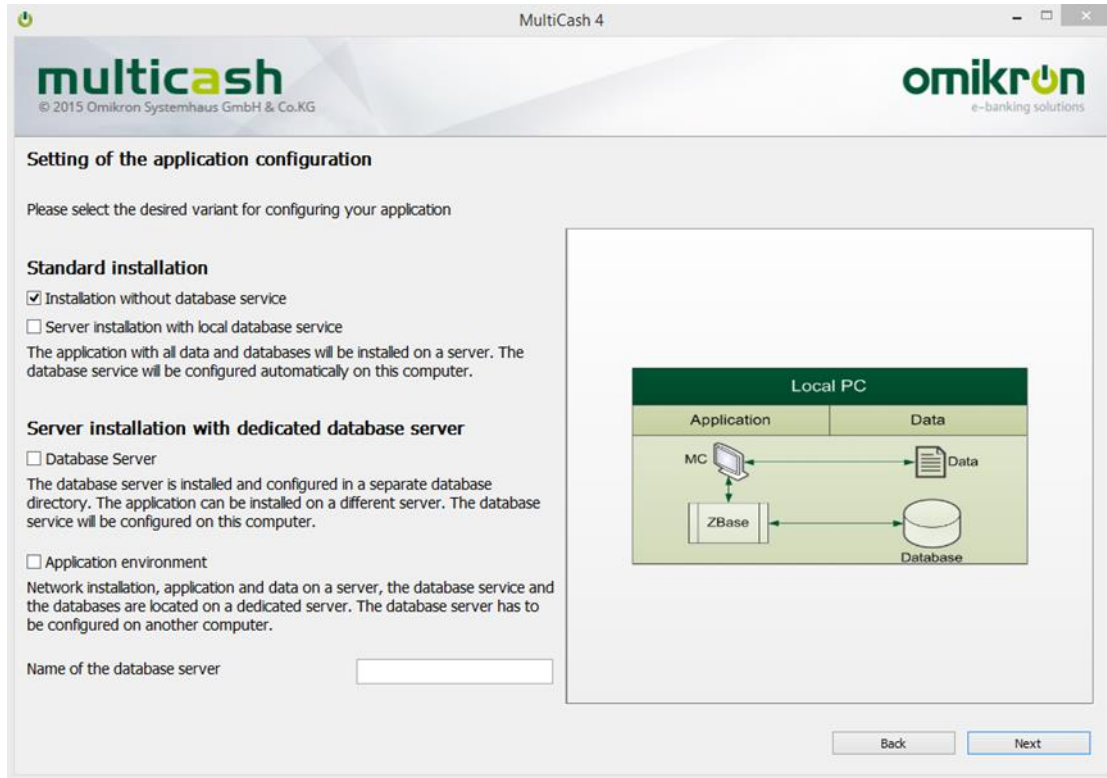
Remark: This type of installation is only recommended for test and demonstration purposes. In this process, no installation may be made in C:\Programs, as the data directories are always created for the server operation relative to the program directory.

For the multi-user-operation, the installation variant with database service on a server should always be used in practice.

2.3.3.2 Server installation with local database service

The standard installation with database service creates the application environment in the indicated path and configures the system in a way that the database engine is started on the current computer as service:

Optionally, a user can be defined for the service (standard: local system account).This user logs on during the setup and its service permission is checked.

Finally, the firewall rules are enhanced for database and application.

2.3.3.3 Server installation with dedicated database server

For this installation variant, a separate database server is used which must only be accessible by the application server per TCP/IP connection. Here, the database engine must first be installed on the database server:
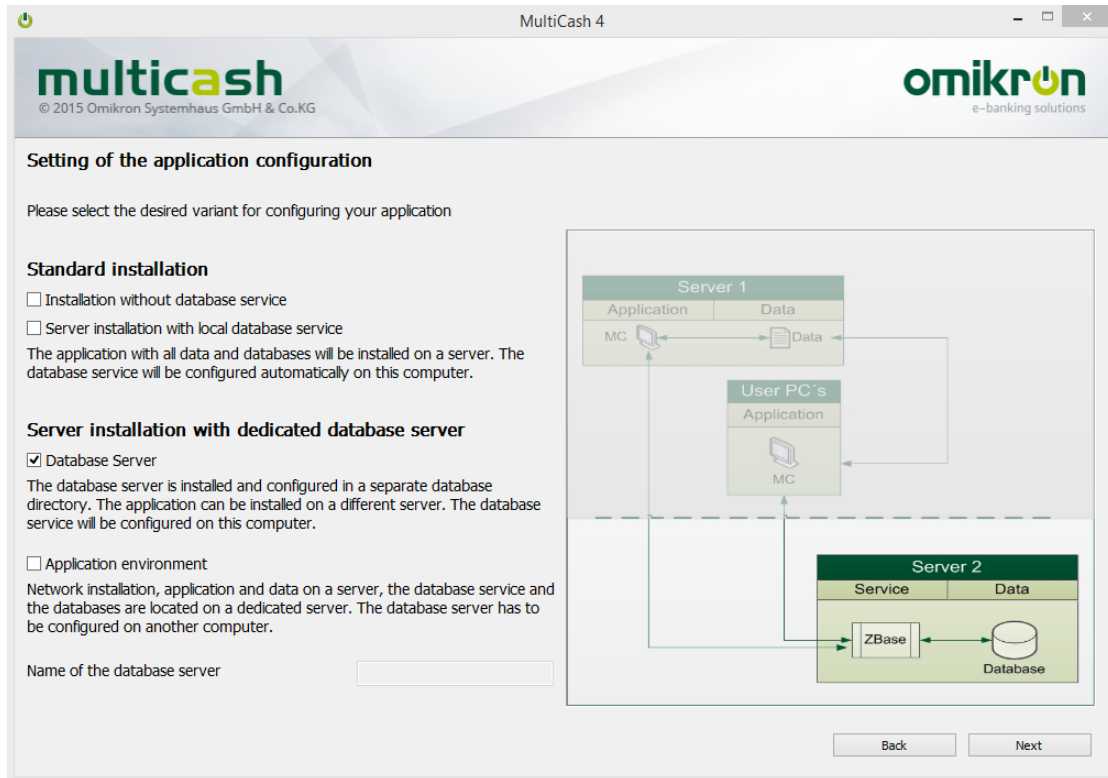
Subsequently, the application environment is installed and thereby the server name is prompted:
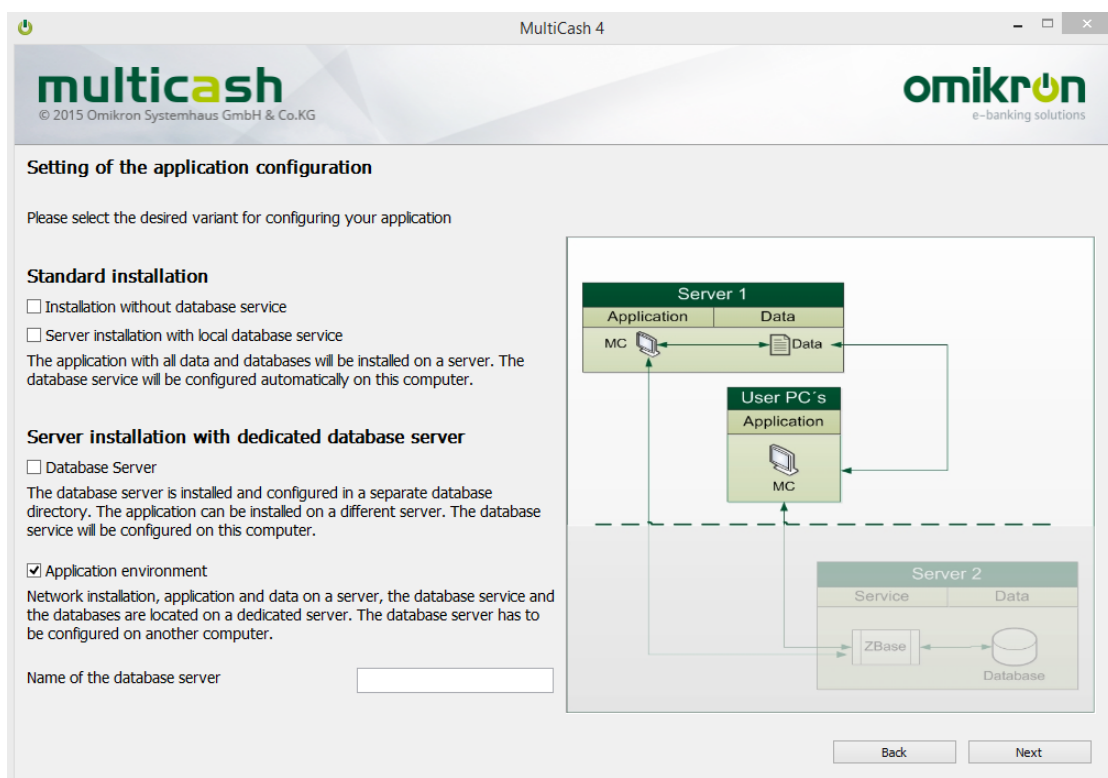
During the installation, the access to the database server is checked and, if applicable, the user is informed about problems:
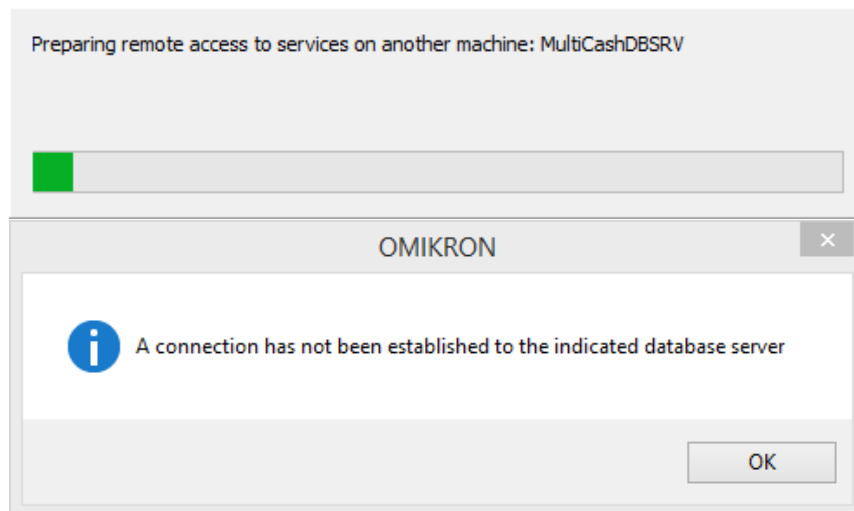
2.3.4 Configuration of the data migration from previous versions

The data from the previous version 3.23.002 can be automatically transferred to the new environment. For this, choose during the installation the installation path of the previous version.

Please observe the shown notes and read absolutely Chapter 3.1.2 Data migration from previous version.

2.3.5 Security notes

2.3.5.1 Master password file Admin2.MPW for first and emergency access

At the end of the installation (no longer during the first program call as before), an individual master password file *Admin2.MPW* is explicitly generated for this environment. It allows a special administrator under the user ID ADMIN2 to access the system without entering a password. This is the only possibility for the first access to a new system and an environment, for which all administrators are blocked or have lost their password.

The master password file is relevant to security! It must be stored in a secure place after the first configuration of the system and may only be accessible for authorizied persons.

Note: If, for reasons of security, you want to store several copies of a MPW file in different places, you should keep in mind that the MPW file is updated for each use and is valid in future only for this new version. Older copies do not allow any system access any longer.

2.3.5.2 Master backup of program environment

In the program directory, information on the installation-specific encryption is saved, without this no access to the data of this environment is possible any longer (even not by the producer). Directly subsequent to the installation, you should absolutely make a complete backup of the program directory and store this in a secure place.

Without a backup of the program directory, the data of this environment are irrecoverable lost in case of a fault!

2.3.6 Update Installation (in general)

During an update installation, the following steps are automatically carried out:

1. Before the program update, the service is automatically terminated, if applicable, also on a re-mote server, if the installing administrator is authorized for this.

2. The complete application directory is saved completely. The backup directories are denoted with a timestamp so that they can be exactly identified (but the description can be changed). In this process, a check is made whether enough disk space is available on the data medium for backup.

    Remark: In case of the configuration variant with separate database server, first an up-date installation must be made on the database server as for the new installa-tion. In this process, the database directory is also saved here automatically.

3. The installation program then checks whether all Client connections to the installation directory are separated to ensure that no files are available any longer and that these cannot be updated for this reason.

4. After the installation program has updated the program components, if applicable, the service is automatically started again.

2.3.7 Configuration of network workstations

Due to the new system structure, the storage of a link for the loader program (…\PRG\<application>\prg\loader33u.exe) is sufficient for configuring a workstaton in the network. For this, also in the installation directory, the program "ClientConf.exe" can be called, which also creates the necessary link for users without administrator rights.

Remark: It is insignificant whether the access to the program directory is made using the UNC path or any allocated drive letter (these do not need to be defined any longer for all workstations equally).

2.4   Usability concept

The Windows user interface of the Omikron applications has been redesigned for the new product generation according to the following guidelines.

1. The handling has been adapted to the "Look-and-Feel" of Microsoft-Office® products ("Ribbon and Panes" concept) to increase the recognition value for the users and to adapt the operating logic to the industry standard.

2. The function menues have been restructured according to content aspects, so that the handling can be made as intuitively as possibly. In this process, the field descriptions have been also revised and adapted to the usage of the target group.

3. Despite the comprehensive revision, the basic structure of the handling should be retained to the extent that a change from the previous version is possible without a new training of the users. To facilitate the migration, the annex contains a comparison of the old and new menu structures (Chapter 5.4 Comparison of menu structures Version 3.2 /).

4. The possible complexity has been hidden as far as possible, so that the default user is not confused by the numerous possible options. If, however, special functions (e.g. saved filters or report lists and data outputs) are used, the access to it shall be simple and logical.

2.4.1   Redesign of the user interface
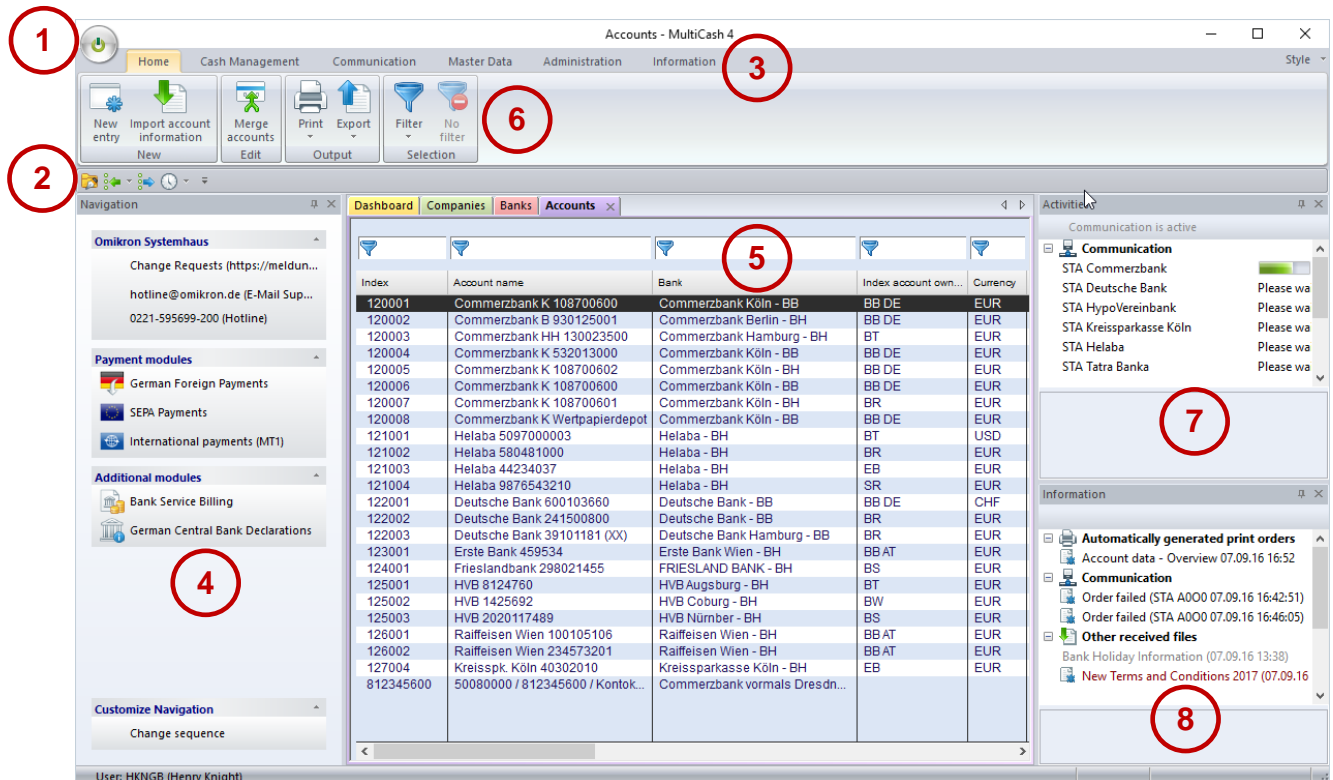
(1)   Start/Stop button: Exit/Logon functions, password change

(2)   Toolbar for quick access: Freely configurable Quick Access Toolbar ("Functional favourites"). The configuration is saved user-related.

(3)   Main menu: Highest level of the functional grouping within the application. The main menu contains ribbon menues for the functions of the core application.

(4)   Navigation: In addition to the main menu, the navigation pane displays support information and the calls of the additional modules. The arrangement of different functional groups and module calls within a group can also be adapted to the individual requirements.

(5)   Working area with tabs: For each called function, in the working area a tab is opened with the corresponding content (database overview or output). At any time, you can switch between these tabs.

(6)   Start menu: This "working ribbon" contains a menu with the functions available in the chosen function (=tab of the working area). It is particurlarly suitable for the intuitive operation of complex applications because it appears as a constantly displayed context menu, which meets with a clear structure in groups and a combination of visual elements and text labels both the experienced user and the occasional user.

        The arrangement of control elements has been standardized, so that standard functions appear always in the same grouping and sequence.

(7)   Information panel for current background activities: Here, functions currently running in the background ("background jobs") are displayed, e.g. active communication and print jobs.

(8)   Information panel for information display: In this display panel, you see notes such as error messages for failed communication jobs, completed PDF printouts or messages from your bank (analog to the information and log manager of the previous version).

Navigation and information panels can be arranged in any order, deactivated if required or set to a background mode ("auto-hide mode"), so that they do not occupy any space in the working area. The information panels automatically appear in the foreground, if their content changes. The working area can be split in several areas, so that multiple database overviews are at the same time available:

2.4.2 Database overviews and context menus

In order that the control elements lay as closely as possibly side by side in database overviews, the quick selection toolbar has been positioned above the particular tables.

The sequence of the columns can be arrangedby any order by marking the column header with the mouse pointer, dragging and moving the column to the desired position (drag&drop). Columns can be removed by reducing their width to zero. These settings are saved user-related and are used again at the next call of the function.

The chosen sorting is also saved user-related and automatically used at next call of the function if the individual parameter "Display/Maintain last sort" is activated. This functionality is created switch-able, as in case of larger amounts of data it can slow down the build-up of the database overviews.

Due to this flexibilization, it was possible to add addional columns in many functions in comparison to the previous version.

The context menus of the database overviews always contain the following standard functions:

1. Mark all records/Remove all markings (as far as supported in the particular function)
2. Reset sorting
3. Optimize the width of all columns: This ensures that the column width of the currently displayed data is adapted to the longest content or the length of the heading (also columns reduced to ze-ro width are again visible.
4. Restore the original sequence of the columns: This restores the delivery status regarding the sequence of columns.

2.4.3 Predefined filters

Filter definitions (formerly "Selections") can be saved as so far. In this process, many us-ers have wished that the deletion by every user can be avoided. For this reason, a filter definition can be now declared during the creation as user-related or global.

Global filters can only be changed by users, for which an appropriate permission is acti-vated in the functional profile.
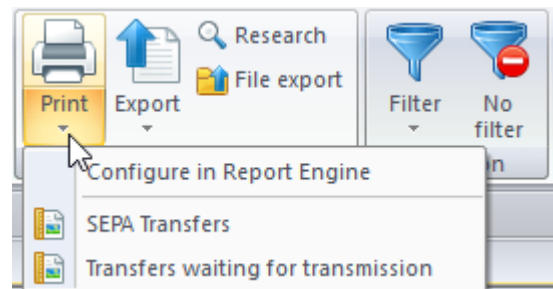
The activation of a predefined filter can now be made directly from the top level of the particular start menu. I.e. you do not need to open the selection dialog first.

2.4.4 Predefined report lists

Similar as filters, predefined report lists can be directly called from the particular start menu:

2.4.5 Direct data export

For the individual further processing of data, in all database overviews an export function (1) is integrated, which exports the content of the current database overview in a CSV file and passes it immediately over to the standard spreadsheet program (2):
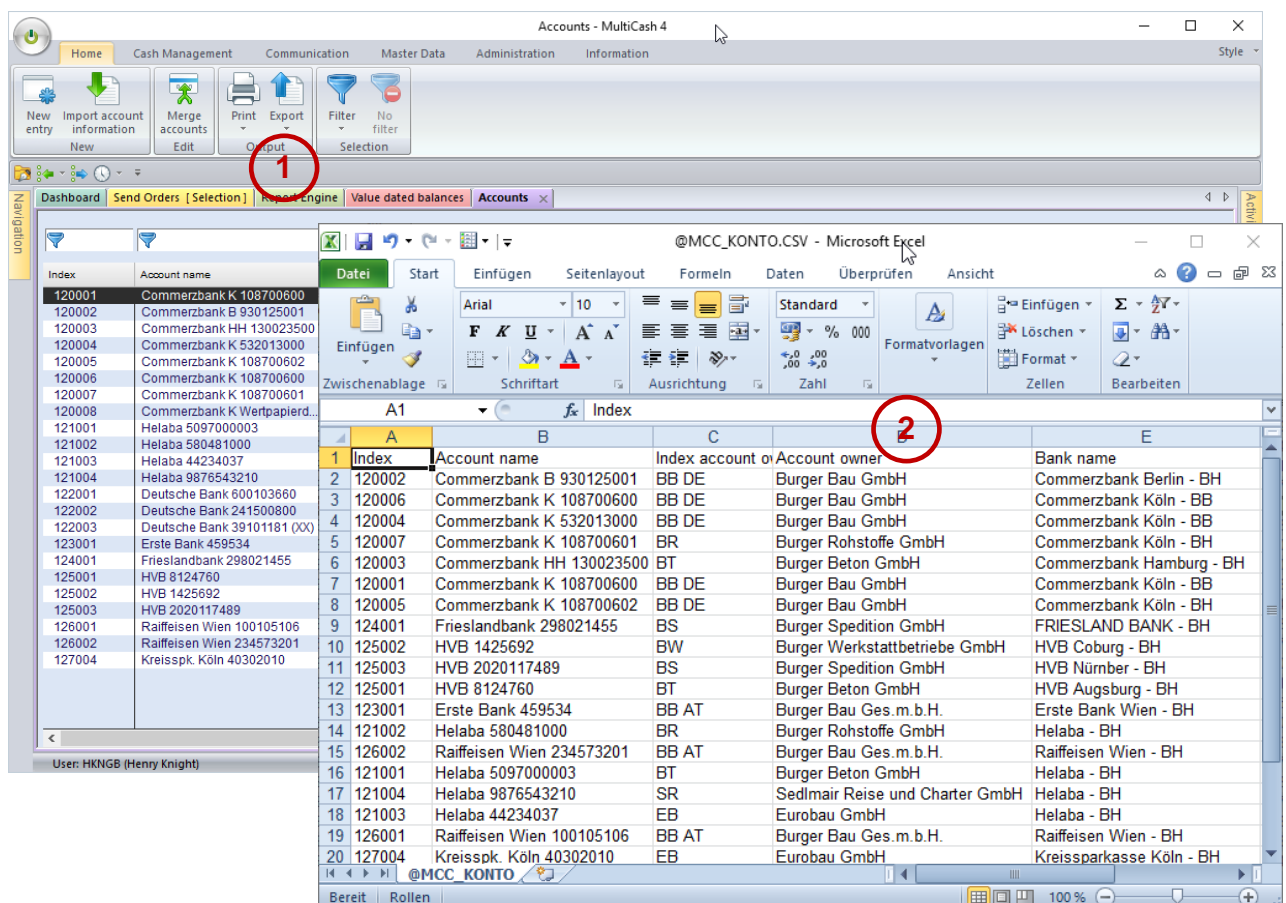
2.4.6 Printouts

For outputs, a new Report Engine is used. All reports have been redesigned on this basis.

When printing larger amounts of data, the processing can be executed in the background, so that you can continue to work while the report is created.

In case of an output as PDF file, the result is then included in the information pane and can be called from there:
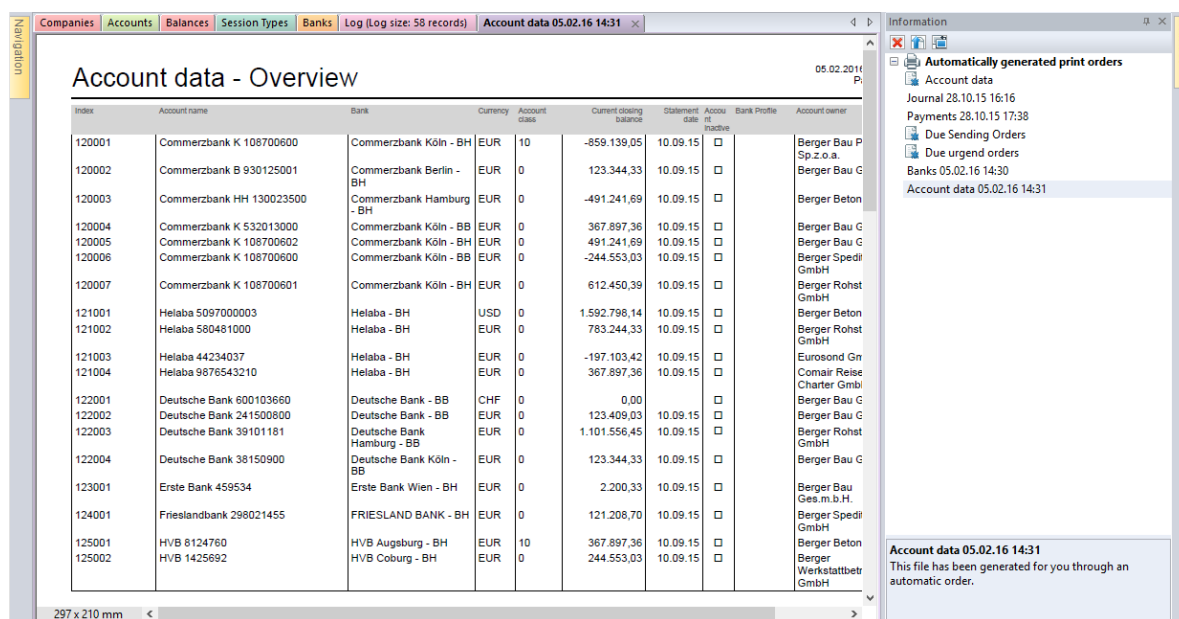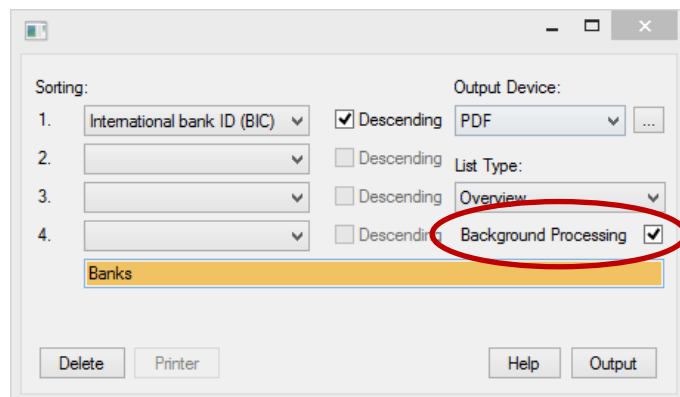
2.4.7 Automatic workflows in the background

A new processing concept "Background jobs" allows automatic functions to be executed in the background, so that the program can still be used, while the triggered processing is executed. In particular, this concerns the following areas:

- Data export and import
- Printouts
- Start-of-the-day processing/Program start processing

In particular, the last point enhances the handling, as the preparatory and clean up functions run in the background. For this reason, the program can be immediately used without waiting for the completion of these functions.

All functions included in the background processing and the processing progress are displayed in the activities pane.
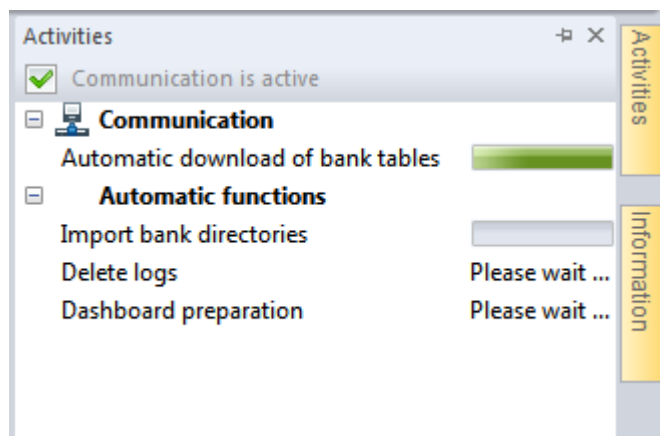
2.4.8 Central master data and variable access keys

The operating concept has been changed in principle in two areas:

1. The master data of the particular system user, i.e. companies (account holders, ordering parties), own bank details and own accounts have been restructured and centralized, so that the same master data are used in all modules.

2. Display and access to data have been created from the user's view: The access is made using an alphanumeric access key or index, which is assigned freely by the user and which can be changed later. In addition, in all overviews and dialogs, first the record description of the user is prior to the identification features of the bank. For example, access key and account name are rather displayed for an account instead of bank ID and account number:
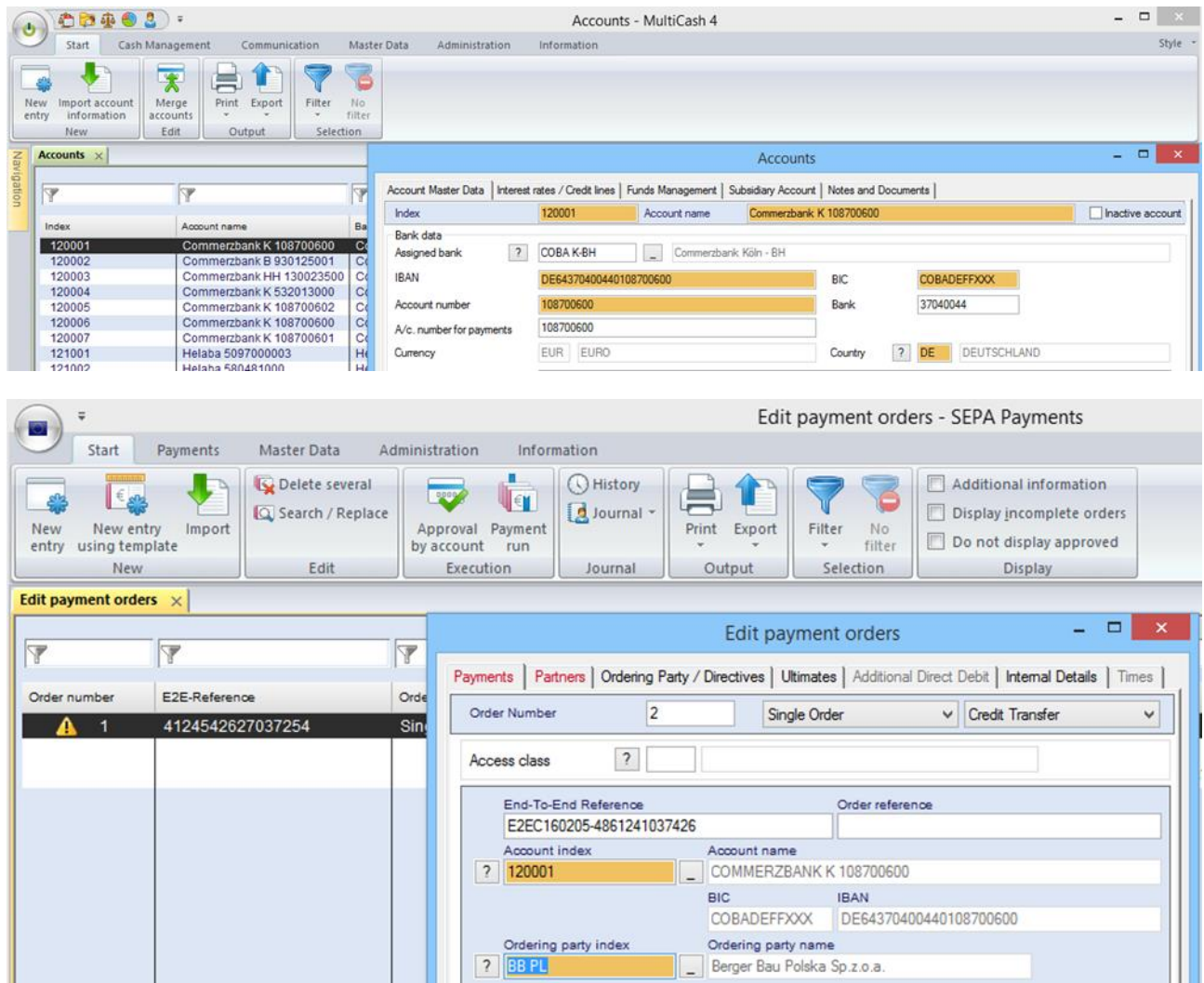
3   Functional changes Core module system

3.1   First program start

3.1.1   Logon with special administrator ADMIN2

For the first program access to a new environment, the master password file created during the installation is required which is used to log on the special administrator ADMIN2 automatically. For reasons of security, this admistrator is only authorized to create administrative user groups and administrator users.

The formerly supported second special administrator SYSADMIN with all permissions is no longer created as this has been criticized several times in security expertises.

After update installation with data migration, an administrative user of the legacy installation can log on immediately.

3.1.2   Data migration from previous version

If you have configured data migration from a previous version during setup the data migration will now be executed.

For successful data migration it is very important to read and follow the instructions in chapter 5.1 DATA MIGRATION FROM VERSION 3.23.

3.2   Main menu

The structure of the main menu is largely unchanged. However, some functions have been moved to other menu items. If you search a function, please see Chapter 5.4 Comparison of menu structures Version 3.2 / Version 4.0. After the program start, the *Cash Management* menu is activated automatically.

3.3   Cash Management (formerly account information)
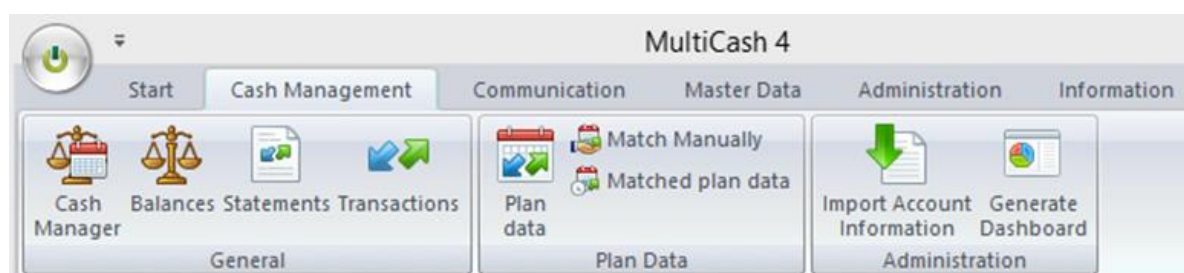
3.3.1 Cash Manager (formerly value-dated balances)

The functionality of value-dated balances and funds management is in principle unchanged. However, some changes have been realized in the usability concept:

1. The menu has been restructured and, if necessary, the descriptions specified.
2. Also here, you can directly export the data, as shown in the overview, to your spreadsheet.
3. Here, you can choose for the display a frequency and the number of columns, whereby it is possible to create very simply comparisons of typical view periods.
4. The value-dated balances overview itself is now shown structured by company (=account holder) and bank contract (or bank/company). If the module "Group administration" is installed, the display variant "By group hierarchy" can also be chosen.
5. The overview is shown as tree and at start is reduced to respectively top level. The lower levels can be expanded as and when required.
6. The graphic display of the charts can be triggered in the context menu and is then shown in a new tab.
7. In addition, the columns "Account type" and "Book balance" have been added.
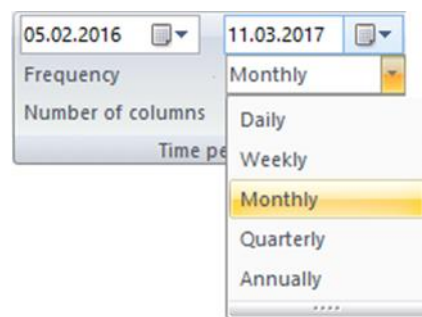
3.3.2   Book balances (formerly balances)

The overview of book balances has been enhanced by four columns with bank IDs and account numbers.

Double-click a balance line to open the corresponding account statement in a new tab:

3.3.3   Statements/Transactions

To accelerate the selection in large transaction databases, the key fields (status, value date and entry date, ordering party/Partner and amount) have been indexed, but not the details, as this is a large text box. For quick response times, at least one of the index fields should always be contained in your filter definitions for account statements and transactions.

In the statement overview, you can change the display to monthly or yearly periodical statements:
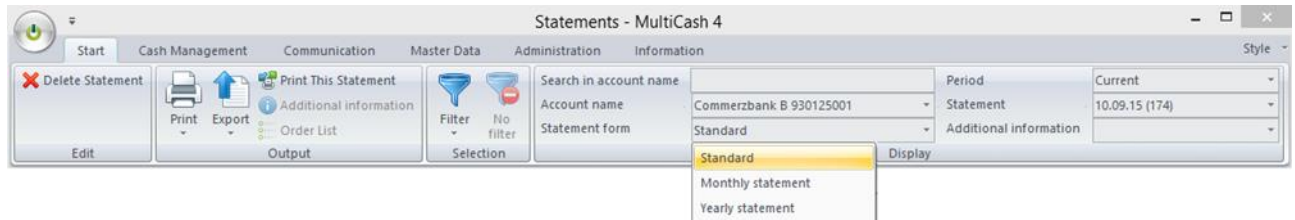
The detailed view has been fundamentally revised and optimized for supporting the new possibilities of the camt formats:

(1) Display of the "Ultimate Parties"

(2) List of up to 5 fees or interest balancing items with currency and description

(3) Display of all references

3.3.4 Plan data

In the area of plan data, all functions have been combined for the maintenance of plan data and the manual plan data reconciliation:
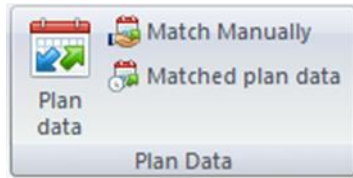
3.3.4.1 Plan data entry

The plan data have been enhanced by detailed information on the partner, so that on this basis complete data can be exported for the booking after reconciliation:

3.3.4.2 Automatic reconciliation

The automatic plan data reconciliation has been enhanced by a "fuzzy" reconciliation, for which defined parameters may be different from planned values (configurable):

Thus, most of the incoming credit transactions for your outgoing invoices can be reconciled automatically.

3.3.4.3 Manual reconciliation

All functions for the manual reconciliation have been combined in this function. It is exclusively based on the transaction table and no longer on the collected account information files:
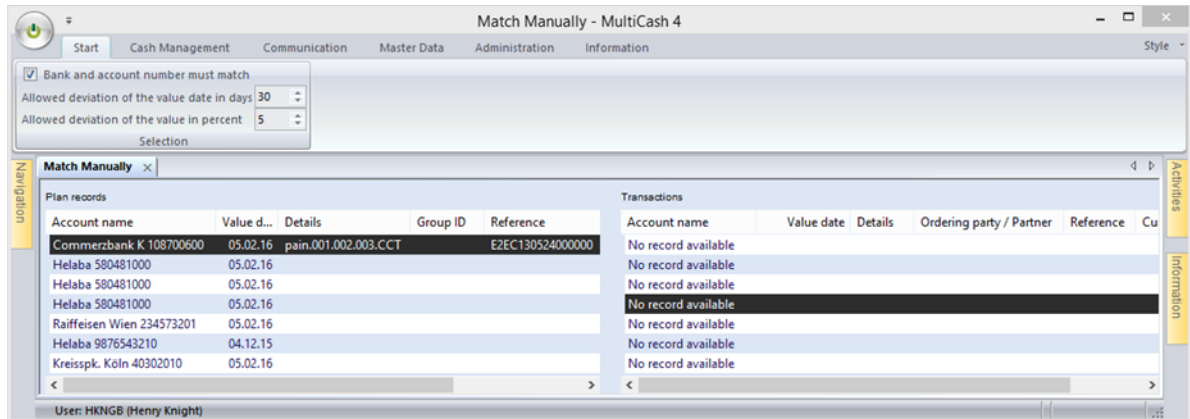
3.3.4.4 Reconciled plan data

This function shows the reconciled plan data with reference to the particular transaction on the basis of the plan data table and can also be exported.

3.4   Communication and payment authorization
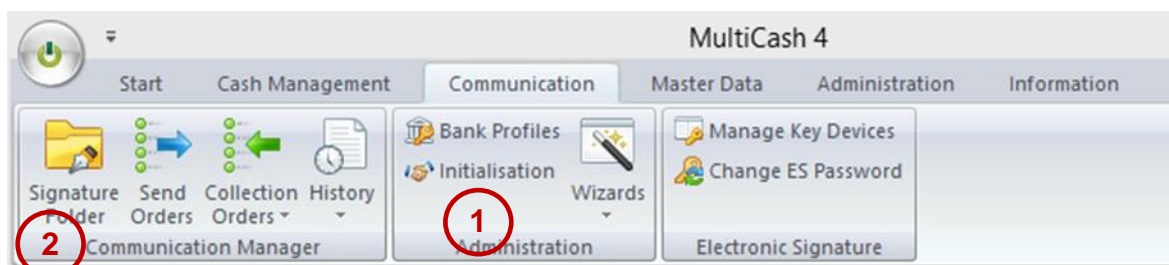
The Communication menu has been restructured, whereby two objectives have been essentially pursued:

(1) The menu itself should be created as clearly as possibly to allow an intuitive handling for the standard case. For this reason, the rarely used functions are shifted to submenus, e.g. to "Wizards".

(2) The main function "File manager" has been assessed by many users to be too complex and confusing. For this reason, the entire functionality has been subdivided in several menu items which are combined in the group "Communication Manager".

Thereby, the control elements could be reduced in the individual menu items and focussed on their particular objective.

3.4.1   Signature folder

The signature folder is a new function for the authorized signatory and is exclusively intended for the payment authorization (internal approval or signature towards the bank):
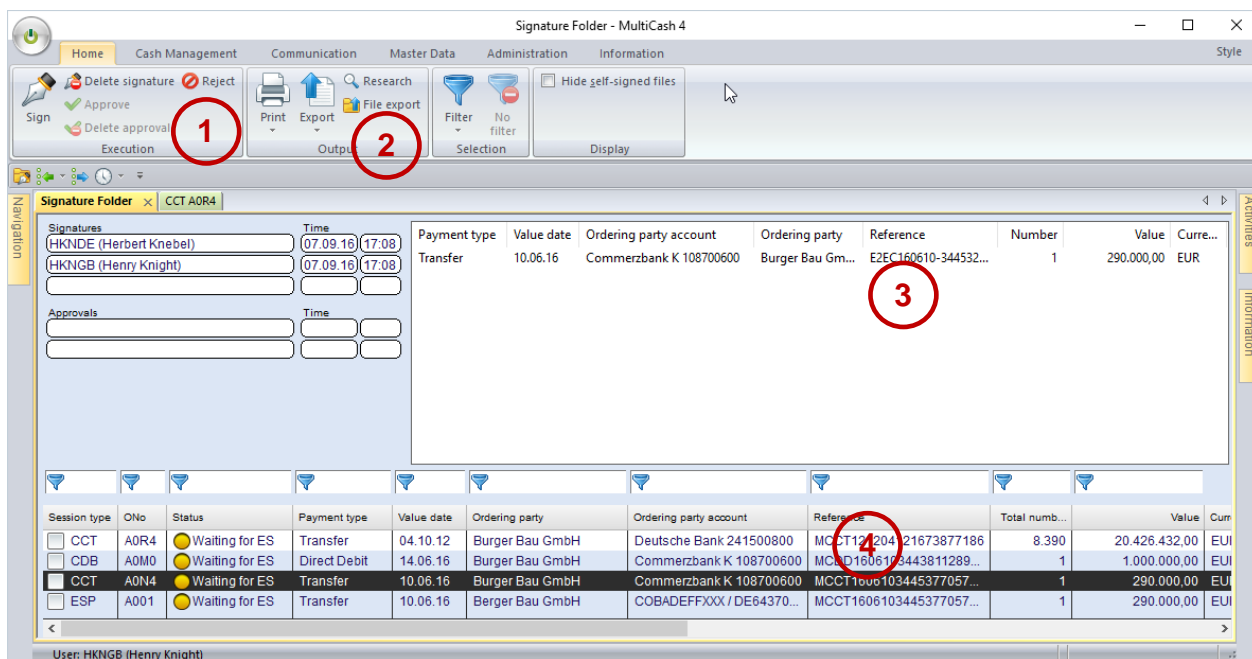
For this reason, only control elements for this target group are contained:

(1) Signature and approval functions and display of previous authorizations:

These meet largely the previous functionality. The check on complete authorization and conversion of the status is now made always automatically on the basis of the authorization class from the user master record (cf. Chapter 3.6.1 Users).

(2) Functions for documentation and check:

Beside the common print and export functions, you find two new menu items here, which need to be explained:

Research:
The research replaces the previous "File display". It has been completely new developed and allows the display of a list of sums or a single transaction list for each marked payment file.

The list of sums corresponds in content largely to the previous "Data medium cover note", but is designed as list so that it works with less paper for several batches or group sums.

The list of single transactions can be used for documentation purposes or for the specific check before the authorization. For this, a request dialog is preceded for the desired selection and sort criteria (the chosen settings are saved user-related).

For the output, a max. number can be defined to reduce in case of large payment files the expenditure of time for random checks. Therefore, the shown example would only output payment orders starting from an amount of 10.000, limited to 100 orders and sorted by amount in descending order, so that the highest credit transfers are located at the beginning of the list.

File export:
Use this function to export the payment file, if required, from the database (cf. also 4.2.1.4. Payment run.

Transaction display:
In the context menu, you can call the overview of the individual transactions contained in each message (if the transaction history is activated for this message type).

Here you can select and sort by all relevant data fields and display any attachments added to manual payments in the payment module.
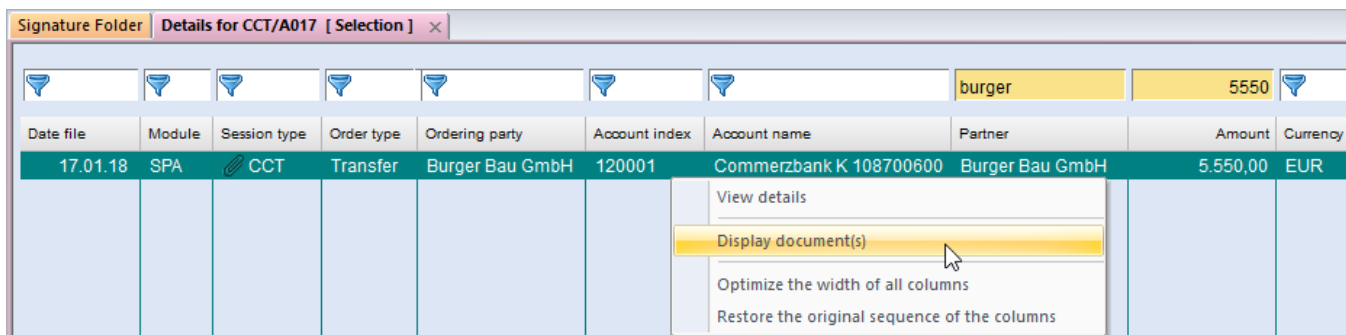
(3) The totals display has been redesigned (the previous "classic" display is eliminated). Here, one line is displayed per batch or in case of single transaction formats (e.g. AZV, MT101) one line per group sum.

(4) Several new columns have been added to the database overview which are read from the content of the payment file:

    a) Payment type (credit transfer, direct debit, urgent transfer, foreign payment)
    b) Value date (i.e. the execution or debit date)
    c) Ordering party
    d) Ordering party account (account name from the accounts database)
    e) Reference (of the batch or of the logical file)

Thereby, you can make very simply a selection by these contents. However, you should keep in mind that for files with several batches or logical files only the data of the first block can be displayed here. The data of all blocks can then be seen in the signature dialog box with the totals displays (5).

Remark: The payment modules always include only one batch in a file, if the parameter "Payment run/Only one logical file per payment file" is activated.

(5) In the signature dialog box, the current value-dated balance of the particular ordering party account is displayed additionally:
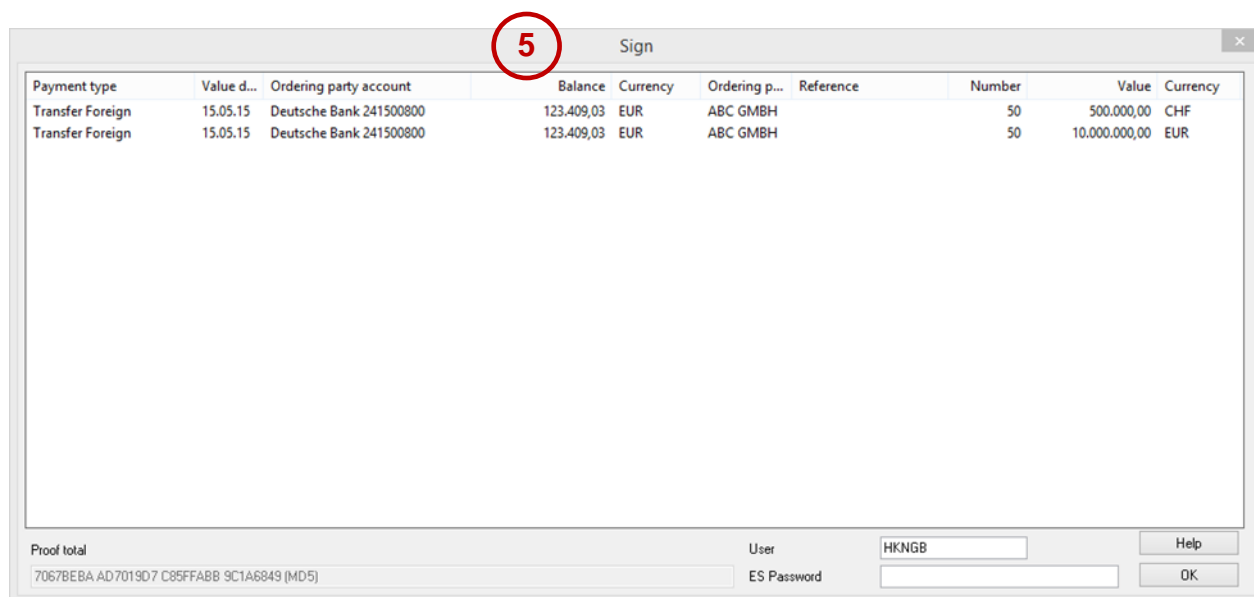
3.4.2 Send orders

The menu item "Send orders" is intended for the administration of outgoing payment orders, but also allows users with authorization function to sign or to approve orders:

For this reason, this function corresponds to the former "File manager" for current send orders. The archived orders can be displayed in the function "History/Output".
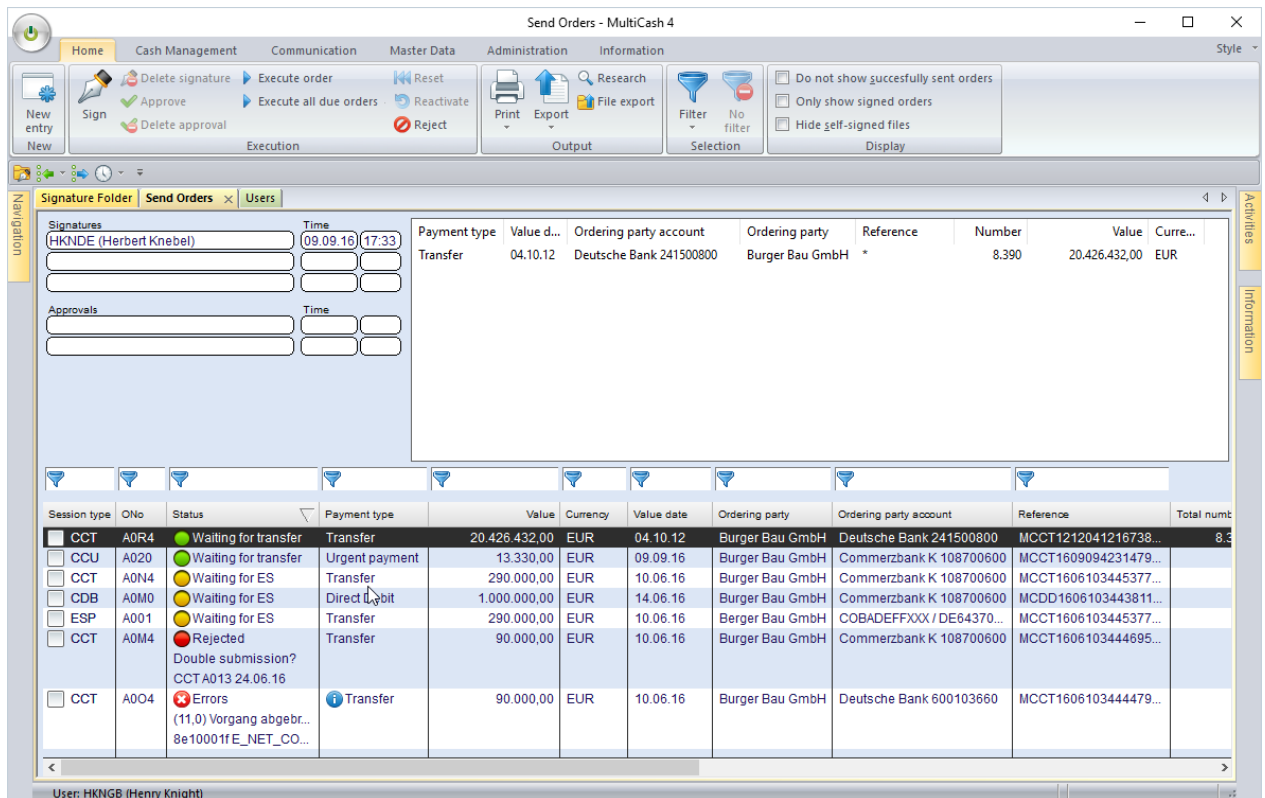
For the purpose of quicker information, the status is shown with symbols (before transmission traffic light symbol, after transmission tick).

3.4.2.1 New entry

For the new entry of payment files to send, a new workflow has been implemented in principle, for which the control is made automatically on the basis of the file content. For this, the user only chooses one or several payment files to send and the application automatically sets for each file

(1) Bank access
(2) Session type (if due to the format several session types are possible, the user chooses from the possible the desired one)
      Group unit (if the additional module is installed)
(3) Access class wage/salary (cf. also Chapter 3.6.3 Access classes)

Due to this new process, communication favorites for send orders become obsolete and are therefore removed.

3.4.2.2 Defective files

As so far, the payment files are checked on format errors before the inclusion. However, the check is not cancelled in case of a first error but continued until the end of the file (as far as the format can be processed in principle). Thereby, a list of all errors and warnings can be generated:

(1) Errors and warnings are shown in a separate area. If only warnings are available, you can send the file.

(2) For correction, you can export a detailed error list.

3.4.2.3 Output of cover notes and payment lists

If you wish the output of data medium cover notes and/or payment lists, you can now automate this separated by session type by choosing appropriate settings in the session type table:

In addition to the output to the printer you can choose the option "PDF for info pane" (1), which generates an entry in the info pane during the inclusion in the commnunication manager, so that you can print, archive or send cover notes by e-mail as and when required.

The payment list can be sorted according to your requirements (2).

3.4.2.4 Protection against manipulation

For securing the way between booking system and banking application, the generation and display of a checksum has been already supported for some time, which can be visually reconciled with the accounting document.

So far, the checksum has been always built using the physical file. However, this leads sometimes to differences if, for example, during the transport between the systems in XML files the line separators are converted or removed. Conversions between multiple SEPA formats also lead to these problems. For this reason, a new variant has been implemented which is used to build the checksum according to defined rules especially using the contents of the file (details can be found in the manual). This variant can be activated with the parameter "Communication manager/Protection against manipulation".

3.4.2.5 Double file check

For securing against accidental double submissions of payment files, so far a checksum has also been used using the physical file. For this reason, double submissions are not identified if in the booking system a new payment run is triggered with identical payments, which contains a new file reference or another execution date.
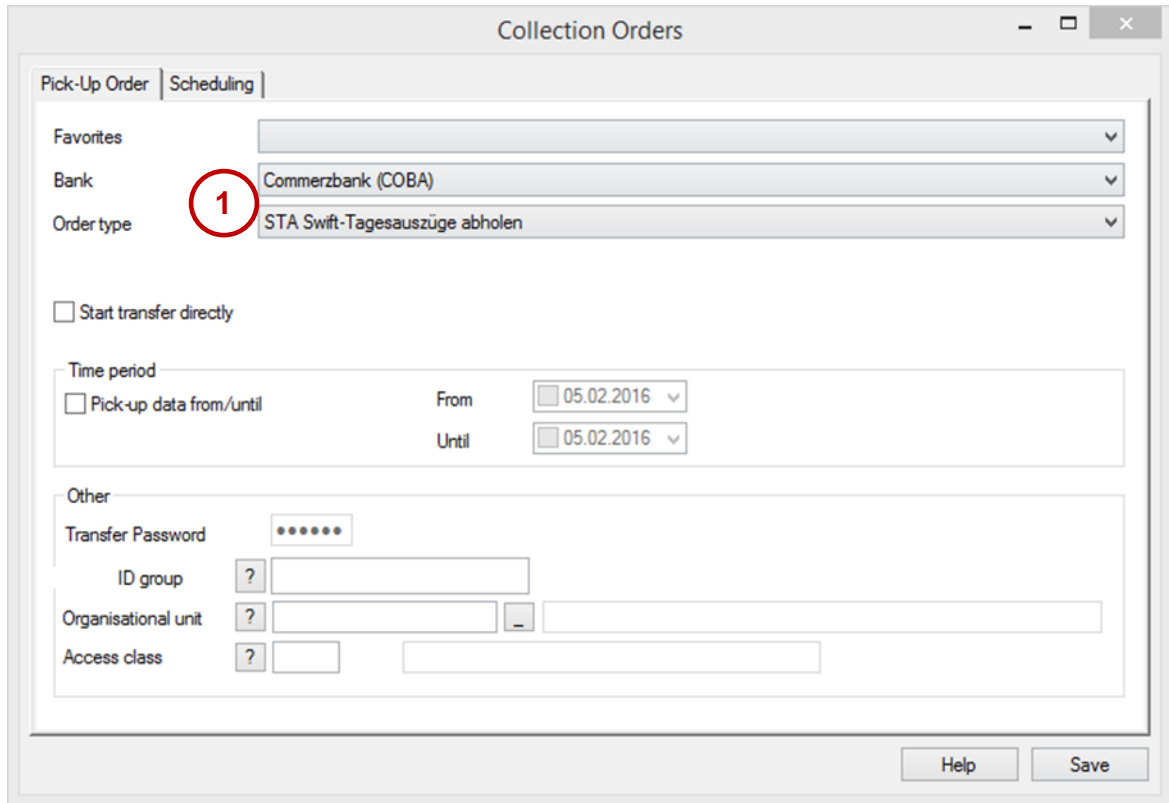
Also for this, a new option has been implemented which checks the contents and not the physical file (Parameter "Communication manager/Double entry check").

In addition, a period can be defined in days, after which files with the same content are accepted (Parameter "Communication manager/Time period for double entry check"). This can avoid false alarms due to regularly recurring payments.
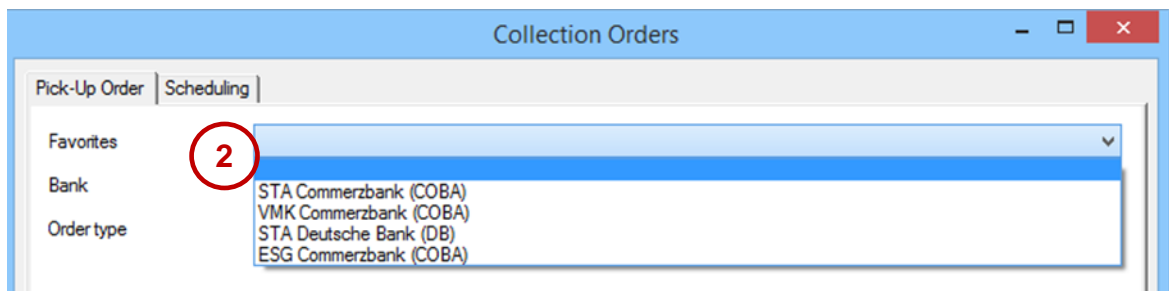
3.4.3 Collection orders

3.4.3.1 New entry – Favorites

In the new entry function for collection orders, the support of favorites has been directly integrated:

(1) The most frequently used bank and session type are predefined.

(2) The favorites are automatically maintained and offered for selection in the sequence of the most frequently use:

3.4.3.2 Scheduling

The Scheduling has been enhanced and the usability concept has been optimized, so that now complex rules can be predefined intuitively. For example, a rule for the retrieval of preposted items could look like as follows:

3.4.3.3 Order batch – Collect data from several banks

The maintenance of order batches for the configuration of the data retrieval from several banks (1) has been simplified in the way that for all banks a new session type can be added with one click (2):

3.4.4 History

The "History" function shows the transmitted data flows of the past. It is subdivided in the following functions:

Output: Files sent to the banks.

Input: Files collected from the banks.

Payments: The individual payment transactions sent to the banks.
               The central payment history shows both the manually entered orders from the payment modules and those from the files which have been directly added from booking systems for transmission (configurable in the session type table per session type with the parameter "Generate payment history in the communication manager").

               Please keep here in mind that the activation of this functionality costs processing time and disk space. For this reason, it can be reasonable to exclude defined session types such as, for example, direct debit collection from this. Therefore, this functionality can be activated in the session type table for each session type separateley.

3.4.5 User Exits

Using "User Exits", external processings can be called for defined program steps and in this way individual workflows can be integrated in the standard program.

The User Exits in the area of the communication have been adapted to the new program structure and thereby the calls have also been revised:

1. **UserExitPreComms.CMD**
   Call after format check, before inclusion in the database. A file to be sent has not yet been imported.

2. **UserExitPostComms.CMD**
   Call after each communication before the postprocessing. If you want to process collected files, the data export must be activated.

3. **UserExitPostFileExportAndExtract.CMD**
   Only if the system parameter "Automatically uncompress received files" is activated: Call for each individual extracted file.

4. **UserExitPostStmtExport.CMD**
   Call after each generation of the UMSATZ/AUSZUG.TXT from collected account statement files.

More details and the call parameters for this can be found in the manual.

3.4.6 Bank profiles

The maintenance of bank profiles (formerly BPD file, bank parameter files) corresponds in content largely to the previous procedure, but has been optically adapted to the new user interface. In addition, you can now allocate to a bank profile the corresponding company (1) and group unit (additional module). Then all communication jobs and collected files inherit this allocation for the access control. This allocation is optional, as a bank profile is often used for several corporates of a group.

For foreign bank accesses, an ultimate character set can be included, so that also the contents from messages without characet set ID can be shown correctly:

If you wish to exclude this bank from statement import in the database in general or for some format families, you can control that here (3).
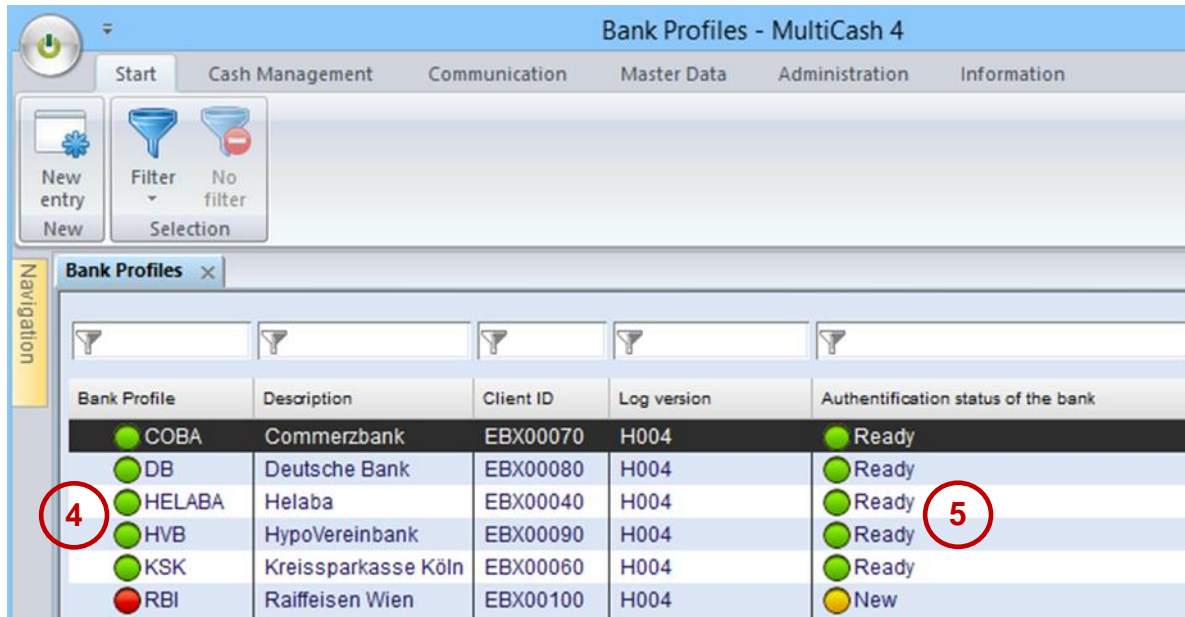
In the overview, the status about all participants (4) and the authentication status of the bank (5) are also visualized with symbols:

3.4.7   Standard User and Distributed Electronic Signature (DES)

3.4.7.1 General Concepts

MultiCash is an application which is optimized for the automated communication with large amounts of data within many banks. For this reason, the preparation for the DES shall be executed in the background possibly by automated communication. The objective is to avoid waiting times for the authorized signatory. Therefore, a combination of three concepts can be used here:

1. **MultiCash: Default user**
   In practice, large corporates are often organized in the form that many jobs are done by users in the application who have no signature or communication authorization with the banks. Nevertheless, these employees shall be able to create communication jobs ready for processing which are automatically executed. For this purpose, a user with saved communication password can be marked in the bank profile as

   a) "Default user": In this case, with EBICS the "technical user" (see chapter 2 below) is transmitted to the bank and his key is used for the communication.

   b) "Default user (internal processing)": In this case, no "technical user" is transmitted to the bank, but this user is used as comms. user with his keys for the transmission. This variant can be used with each bank for all communication jobs except DES, even if the bank does not support the concept "technical user".

   The default user is always deployed for the bank communication whenever a user without bank profile creates a communication job.

2. **EBICS: Technical user (EBICS specification V2.5, Chapter 3.7)**

   The EBICS protocol provides the concept "technical user", who can execute the communication for other users. This concept is related to that of the MultiCash default user, but special in the respect that for jobs with "technical user" two communication users are transferred to the bank: informatively the user who has created the communication job (must have a bank profile) and the "technical user", whose keys are used.

   Unfortunately, there is a different implementation regarding the "technical user" on bank side. Some bank servers do not support this concept or only after bank agreement with a special master data entry. Please ask your banks whether the concept "technical user" is supported for DES. In many cases, this is standard or possible with special agreement.

3. **MCFT and EBICS: Distributed Electronic Signature (DES) (EBICS specification V2.5, Chapter 8)**

3.4.7.2 Usage of Distributed Signature with EBICS

1. Because several EBICS-Requests (HVU, HVD, possibly HVT) must be retrieved one after another for the preparation of the DES, these are hidden behind the session type ESG (Electronic Signature Get). Their answers are then interpreted and displayed with the session type ESP (these encapsulates the EBICS-Requests HVS and, if applicable, HVE) in signature folder or send orders.

2. The DES session types HVx are special:
   In general, in EBICS all download session types are customer-related, i. e. a user of the customer retrieves all data available for the customer. Unlike the HVx session types: These are defined user-related, i. e. the retrieving user receives by default only those orders which he can sign himself. For this reason, there are two variants:

   a) By default, each user must himself execute an ESG request. For this, each approved signatory should create an own order batch with ESG requests. In this case, an ESP order is created for each user and each file to sign, in which the relevant user is included as sending user with his communication password, so that this does not need to be entered once again when sending the signature.

      In the functions "Signature folder" and "Send orders" each user can hide the ESP orders of the other approved signatories by activating the display option "Display only those to sign".

   b) With the concept "Default user", not "Default user (internal processing)", this can be simplified, because in this case MultiCash retrieves with this "technical user" the signature folders for all users of the bank profile. Then an ESG request and an ESP entry per file are sufficient for all approved signatories, because the communication password of the default user is used for the transfer.

   The variant 2.b) is the recommended method. Otherwise, only variant 2.a) can be used.

3.4.7.3 Usage of Distributed Signature with MCFT

For the MCFT method, ESG/ESP orders with or without default user (both variants) are always customer-related, so that an ESG request is sufficient for all approved signatories.

3.5 Master data

3.5.1 General remarks
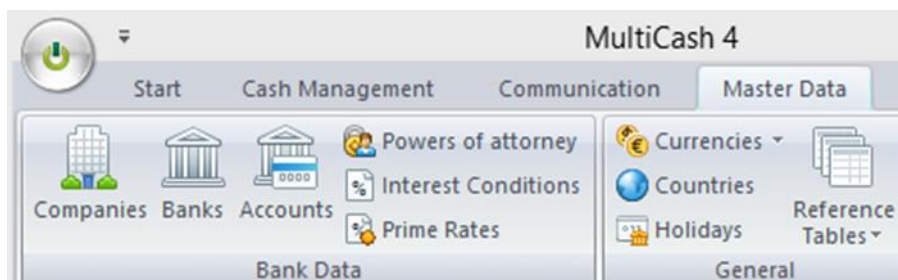
The data for the own corporate and for its bank connections are maintained centrally in the main program and then used across the system in all modules.

In the field "Index" of the particular table you save the short description or internal ID, which you want to use to access the master data in all other functions. We recommend to use unique access keys, but this is currently not mandatory. Other than so far, you can change the index here at any time.

The country code must be absolutely maintained because each payment module decides using this information whether it can use the respective record.

Remark: The bank and account master data can be created during the EBICS communication automatically by retrieval from the bank servers.

3.5.2 New: Companies

The starting point for the master data maintenance is now the company, i.e. your own corporate (or several), which represents in the functional area "Cash Management" the account holder and works in the payment orders as ordering party.

If the additional module "Group units" is installed, a group unit is automatically created for each company.

3.5.3 Banks

In the Banks table, the bank details of each company are stored. Here, alongside the basic data also the agreed interest conditions and credit limits are saved. The allocation to the bank access (former-ly BPD) is also used in the payment modules.

If you operate an environment for several corporates, you must define for each of your companies bank details, even if the same Bank-ID is used. This is important for simple definition of agreed bank conditions and correctly structured evaluations by banks and corporates. For the structure of your master data, please be aware of this model:

The ABC Ltd. holds accounts with the branches (= bank connections) Hamburg, Berlin and Paris of the Beta-Bank. For the data exchange with the Beta-Bank, each of these bank connections are linked with a bank access (formerly "BPD"), here with a German and a French one.

For all current accounts, the same interest conditions apply and there is a global credit limit. There-fore, a bank contract is created for the contract relation between ABC Ltd.and Beta-Bank (or one of the bank connections is defined as bank contract) and all other bank connections are linked with this bank contract. The conditions stored here and the credit limit apply for all accounts of the linked bank connections, if no own rules are defined.
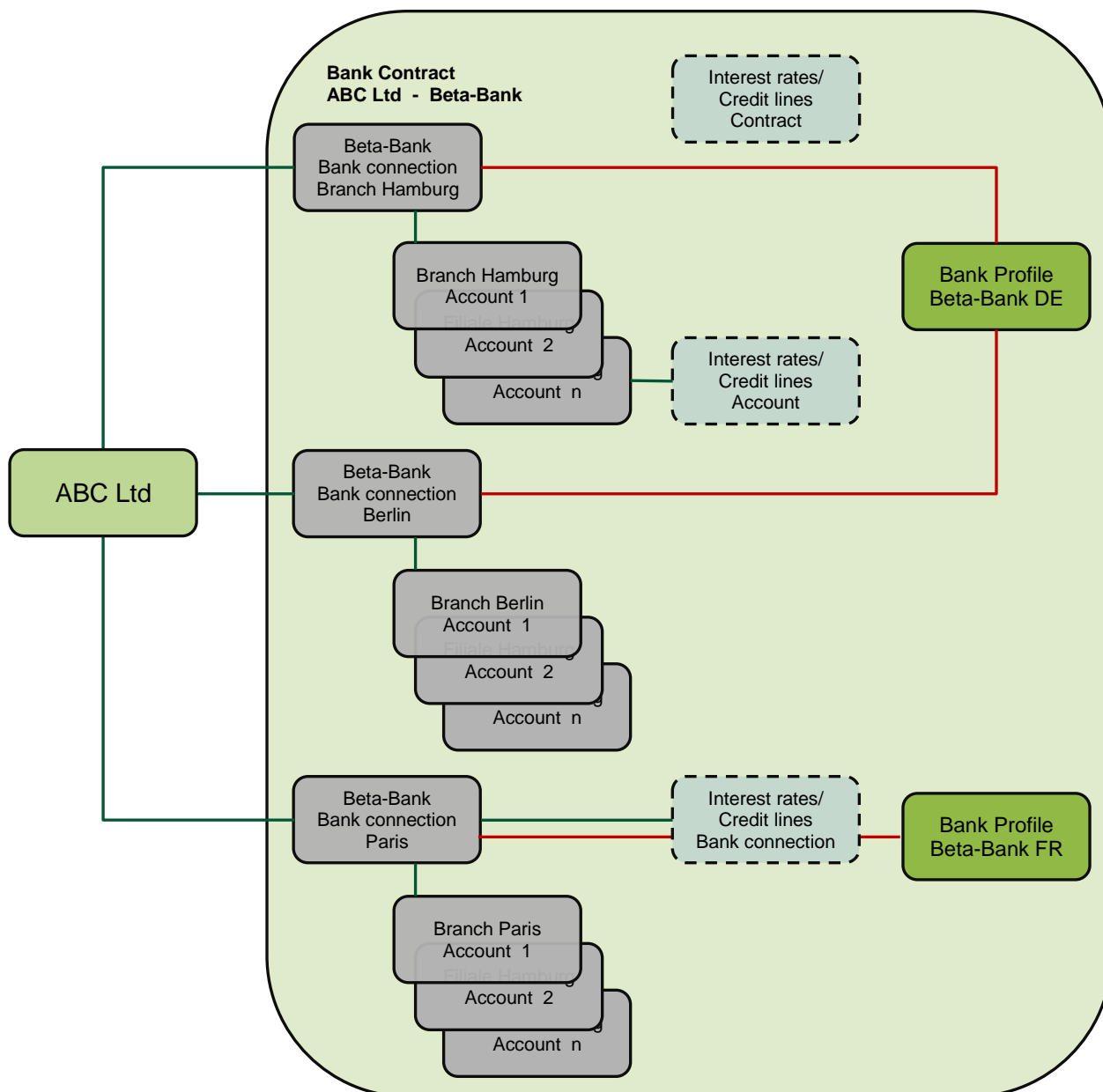
The following elements have been newly introduced:

(1) Index and description: These are your access keys and your description of the bank details/the bank contract.

(2) Country of account-holding bank: This controls the allocation to the bank search tables and accounts.

(3) Search functions for the local and international bank search tables (if available).

(4) The bank name is the official description of the bank, which is automatically filled from the bank search table (if available).

(5) Type of bank details: Due to the definition of bank contracts and the connection of individual bank branches you can hereby combine agreements about conditions for an entire bank/company relation:

Bank connection:	Connects a bank code with an account holder and a bank profile and, if applicable, with a bank contract
Bank contract:	Contract of company with a bank (group), does not contain any Bank-ID
Bank contract/Bank connection:	Bank contract which contains a Bank-ID and represents therefore a bank connection, too

(6) Bank contract For branch banks, a contract entry can be linked here, which contains the interest conditions for this bank connection.

(7) Group unit: Here, you can optionally allocate the bank connection of a group unit (if the additional module is installed).

(8) Company: This is the owner of the bank contract.

(9) Allocation to a holiday table (the standard table of the bank country is predefined).

3.5.4 Accounts

The account dialog has been restructured and enhanced:

(1) The allocation to the account holder, which can be allocated from the company table, is used as ordering party in the payment module.

(2) For account classes, a description can be stored in a new reference table (cf. Chapter 3.5.5).

3.5.5 New: Account classes

For account classes, a new reference table has been added, where you can store descriptions:

3.6   Administration: Rights profiles

3.6.1 Users

The maintenance dialog for the user administration has been redesigned and enhanced:

(1) In the header of the dialog and in a column of the database overview, the status of the user is displayed:

Status	Explanation
New	User is entered and has not yet logged on for the first time and changed his password
Initialized	The user has logged on for the first time and changed his password, but has not yet been approved by the administrator (cf. Chapter 3.8.1 Parameter "Approval for user activation")
Active	The user has logged on for the first time and changed his password (and, if applicable, has been approved)
Deactivated	The user has been deactivated by the administrator

(2) If the user has forgotten his password, with this function he can be reset again to the status "new".

(3) The functionality linked with administrator rights has been enhanced:
     a) Only administrators can change global or security-relevant system parameters.

b) If the "Dual Control" system parameter is activated, the logon of a second administrator is necessary for the access to system parameters and user administration.

c) New: In the user adminstration, only administrators can change the administrator right (also for groups).

(4) After a multiple incorrect password entry, a logon blocking period is activated, which is displayed here.

(5) The list box "Authorization profile" has been invented. Use this for general control of permisssion for internal approvals or/and power of attorney or just bank commucation. For the last three a signature medium must be chosen.
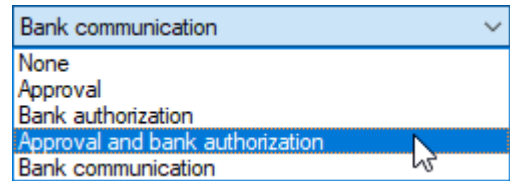
Remark: For users with profile "Bank communication" who are just authorized for data exchange with the bank, you should here also choose a signature medium (the easiest way is "database"), because for EBICS at least a transport signature is mandatory.

(6) The list box of the authorization class is also new. For users with approval authorization or power of attorney, you can here define the authorization class, so that the software can automatically recognize whether still another signature is required before the order may be transmitted to the bank. This eliminates the prompt whether still another signature shall be added. Using the additional module "Limits", authorizations can be limited according to amount.

If for any user different signature classes for certain session types or accounts are configured in their bank profiles, please don't define an authorization class here. Orders signed by those users must be marked manually as sufficiently signed (like in old version).

Remark: Only users with power of attorney and authorization class can be allocated to a bank access.

(7) Contact details have also been added to the first tab, as they gain more and more in importance. Here, the allocation of the company is new, for which the user is employed. At present, this link is purely informative.

(8) If the system parameter "Send access data via e-mail" is activated, during the new creation of a user entry or when resetting the password, an e-mail is automatically sent with the login credentials to this address:
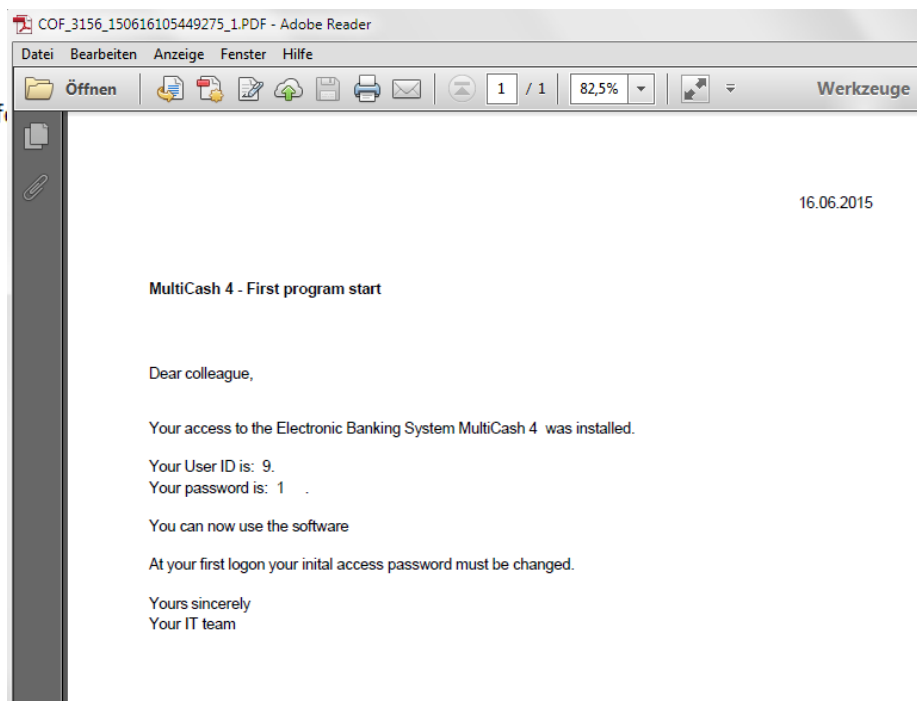
(9) If the parameter "Approval for user activation" is set, the user must be approved here after his first logon with password change. This setting is also considered for the letter with credentials, which, if applicable, then contains a confirmation section.

(10) In order that for historical logs the user data are still available after the retirement of an employee, user entries should be deactivated instead of deleted. The reason for deactivation is prompted and saved. As long as the user master record is not deleted, it can be activated again.
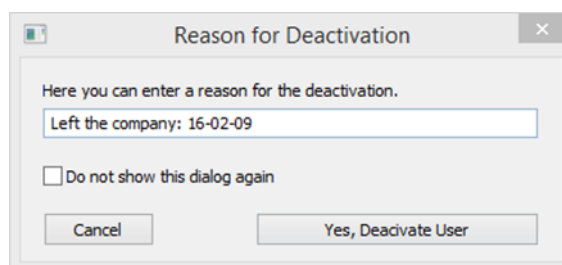
3.6.2   User groups

The content of user groups has been enhanced and restructured in orderto to design the handling as intuitively as possibly.

3.6.2.1 Functional profile

The group for the functional profile also contains the new list box for the internal approval or/and bank authorization.
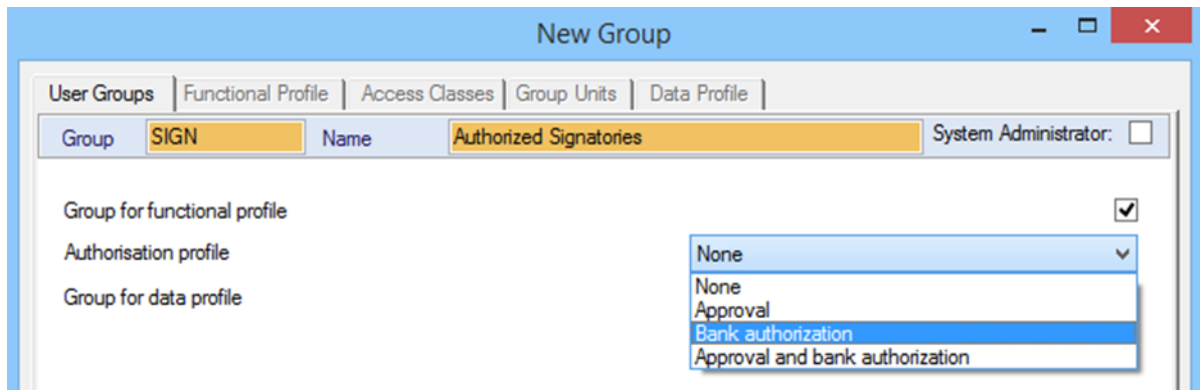
In addition, a new functional profile "Maintain administrators" has been implemented, which can be used to restrict specifically the right to create and change administrators:

1. Only users with this right can create administrators/administrator groups or change their rights profile.

2. Even a user with this permission cannot change his own rights profile or that of his group.

3. If you want to avoid that an administrator gives this right to other users/user groups, you should withdraw this right from all users. Then only the special user ADMIN2 can create new administrators.
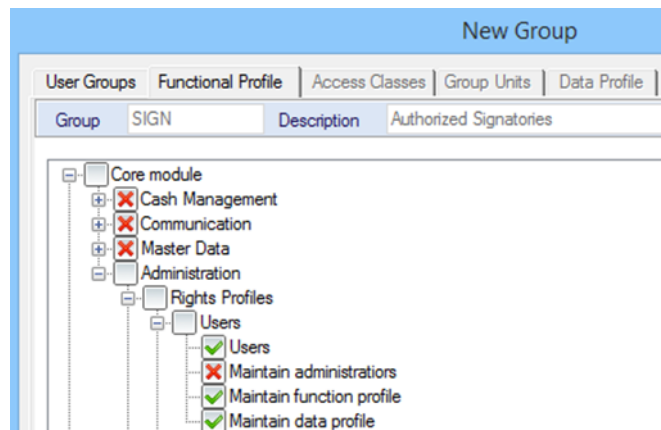
3.6.2.2 Data profile

For the data profile, permissions for access classes and group units (additional module) have been removed from the selection function and shown in a new way in own tabs:

The access classes can be marked directly as well as the special cases in the functional area "Communication Manager". Despite the restricted access class profile, you can still display the relevant jobs in the database overviews and display the short contents (totals of the cover note) here.
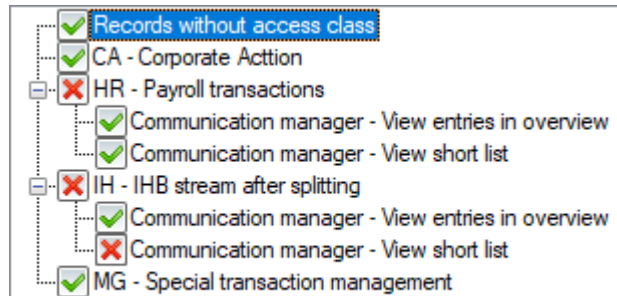
If the additional module "Group units" is installed, the desired permission can be marked on the appropriate tab. For this reason, it is no longer necessary to build reasonable number ranges for structuring a group which can be efficiently selected.

Even the change of the corporate structure is no longer a problem, as only the hierarchy definition must be adapted.

The last tab "Data profile" contains now the allocation for the account class. The fixed defined filter is required in few exceptional cases if need be. The fields "Access classes" and "Group units" have been removed here to avoid inconsistent definitions.
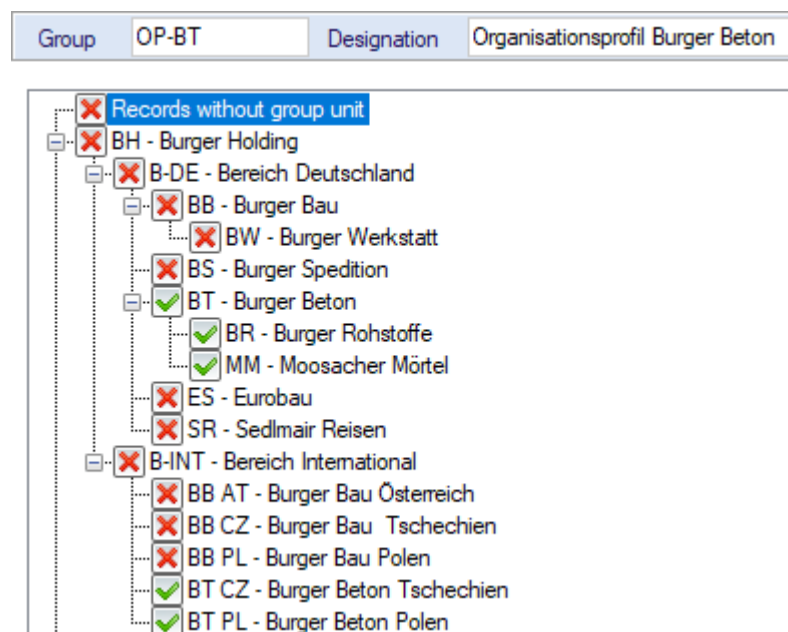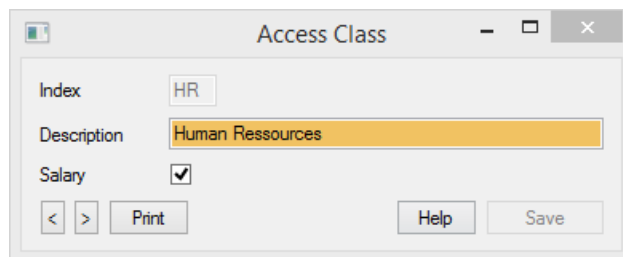
3.6.3 Access classes

As so far, the access control for transaction data is made by the allocation of an access class, as this mechanism allows individual permission models to be shown regardless of the particular payment format. However, wages and salaries represent a standard case which must be handled in all corporates reliably confidential. For this reason, many users have wished a solution which simplifies the handling for these transactions and helps to avoid mistakes.

For this purpose, in the access class table a check box "Wage and salary" has been implemented which allows exactly one access class to be marked accordingly. The access class marked this way is automatically set if the transaction data contain a flag for salary payments, e. g. for SEPA the Purpose Code SALA (and others).

This automatic allocation of the access class "Wage/Salary" is supported for
- Import and entry of payment orders in payment modules
- Entry of payment files for transmission in the function Send orders
- Display of collected payment orders within the framework of the Distributed Electronic Signature if the original file has been retrieved.

3.6.4 Group units (Additional module)

If the additional module "Group units" is installed, this can be used to map the corporate and group structure and can be also used for the access control. This functionality has been basically revised:

(1) During the new creation of a company (cf. Chapter 3.5.2 New: Companies) a group unit is automatically created and linked with the company. I.e. a company is always a group unit.

(2) In addition, group units can be created which themselves do not represent any legal entity but are only used for structuring, e.g. regional areas.

However, a company can have branches or departments. These can also be created manually and allocated to the particular company.

(3) The index or access key can be be defined alphanumerically (max. 20 digits) and also be changed later.

(4) A higher group unit can be allocated, so that a hierarchical structure is developed. This simplifies the permissions maintenance in the data profile of the user administration.

3.7   Administration: Interfaces

3.7.1 Import/Export

The maintenance and application of the Import/Export interfaces has been adapted to the new operating concept.

All existing interface definitions can be seen in a database overview. There they can be processed or also used directly.

The new function of the direct data export in the individual menu items automatically generates interface definitions. These are marked with "Automatic" and can here be adapted. In addition, possibilities have been enhanced by some details:
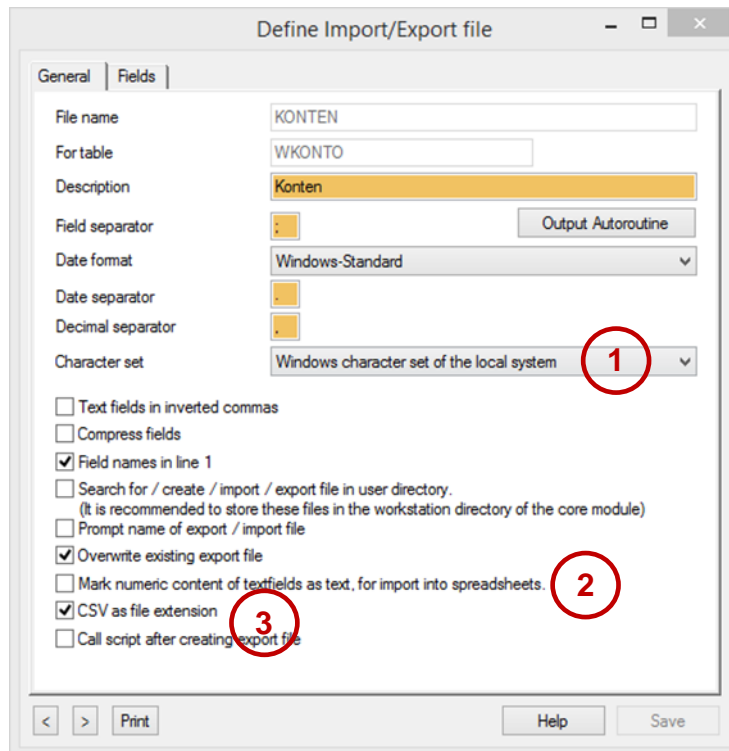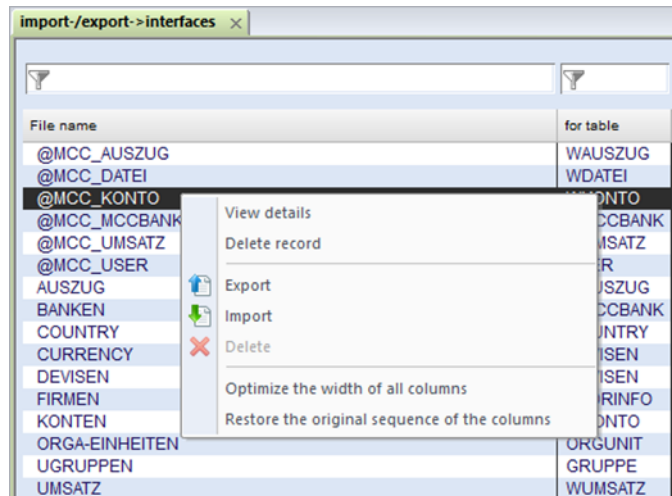
(1) As character set also UNICODE can be used additionally.
(2) When importing CSV files in spreadsheets, these partly represent large numbers (e.g. account numbers) in scientific notation. For this reason, a parameter has been added which effects a formatting of such field contents as text boxes.
(3) In most cases, spreadsheets expect the extension "CSV" instead of "TXT" for a correct automatic interpretation. This can also be controlled using a new parameter.
(4) In the area of the field definition, now also "Wildcard" fields are supported. The sequence of the fields can be changed by "Drag&Drop".

3.7.2 Report Engine (formerly Output Autoroutines)
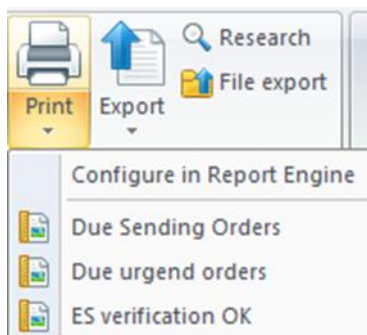
The handling of output orders has been adapted to the new usability concept. Output orders saved in the Report Engine can be saved as template from the particular table overview using the Split button "Print" and can be started again. This display is context-sensitive, i.e. only templates are offered which belong to the currently opened table overview (in the example: "Send orders").

The entirety of all output orders can be found under the appropriate menu item "Report Engine" in the main menu "Administration".

The essential change in this function affects the new options of the trigger control (trigger) of output orders. While in Generation 3.2x only event-driven output orders were possible after a finished communication (Comms.), this concept has been replaced by a comprehensive time scheduling.

Example 1:

Each working day at 8:15 o'clock:

Example 2:

On each last day in the quarter at 15:00 o'clock:

3.8   Administration: General

3.8.1 Parameters

3.8.1.1 General

All parameters (also those of the additional modules) are combined in a central function:

In addition, the following changes and enhancements need an explanation:

(1) In future, the CSUB.PRO profile file and all configuration files shall no longer be changed, as this makes the support difficult in case of problems. In addition, INI files are overwritten during each program update, so that your changes are lost or must be maintained. Instead, you can now make the desired entries directly in the parameter dialog.

(2) The common parameters of the payment modules are combined. You need to define these only once for all modules.

(3) Only the specific parameters for individual modules must be defined separately.

(4) For each parameter, a detailed explanation is displayed in the informaton area of the dialog.

3.8.1.2 Approval for user activation

If this new parameter is activated, the user needs to be approved after the first logon only by an administrator before he can work with the software. In this way, you can ensure with appropriate organisational procedures (e.g. signed confirmation of the user) that actually the right person has logged on.

3.8.1.3 Simplified first logon

To simplify the first logon, the system can be configured in a way that the login credentials are sent by e-mail to the user (then the e-mail address becomes in the user master record a mandatory field). In addition, the first logon password can be automatically generated, so that the administrator needs only to create the user access or in case of blocked user to reset the password.
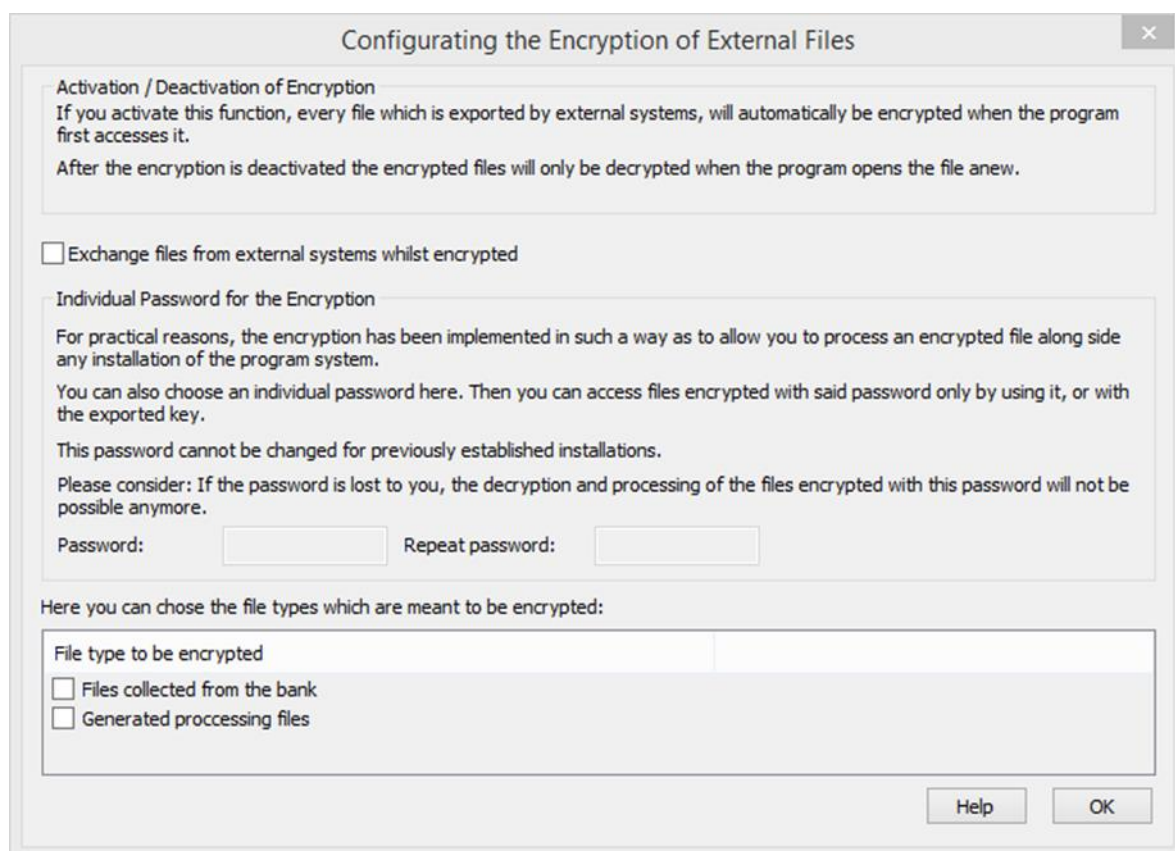
3.8.1.4 Enhanced password complexity rules

The complexity rules have been enhanced by the marked parameters.

3.8.2 Encryption

The external encryption can be configured in menu item "Administration/Encryption":

This encryption method is compatible to the encryption of the previous version. It can be activated separately for the export of account information collected from the bank and for exported export files, as well.

For importing encrypted files, no activation is necessary, as these are automatically identified to be encrypted.

The external encryption is also compatible to the external tools OFileDecrypt.exe and OFileEncrypt.exe. For this, now a library is delivered with a programming interface for the integration in own applications.

3.9   Administration: Software

3.9.1 Software Update

Here, you can register your software for automated update or software update service (additional service).

If you register the software, your software producer provides a basic update as free service for the following key standard tables and processing rules:

- Sets of rules for IBAN and Euro processing
- Bank code tables for Germany, Austria and Switzerland
- Register of banks supporting SEPA in Europe (SCL-Directory)
- Access data of many EBICS bank servers

Optionally, your software licensor provides a complete update service for the software modules obtained from him. If this option is activated and chosen, you receive new software versions in addition to the basic update which you can install according to your organisational rules at the time defined by you. It is no problem to skip an update. Later then you receive a new enhanced update package if other components shall be updated.

3.9.2 Support

In the new generation, a new support module has been integrated which increases the efficiency of the support. Here, in case of problems, you can activate delivered support packages after consulting your helpdesk or import new support packages in the environment by "drag-and-drop" which your contact person sends you by e-mail:
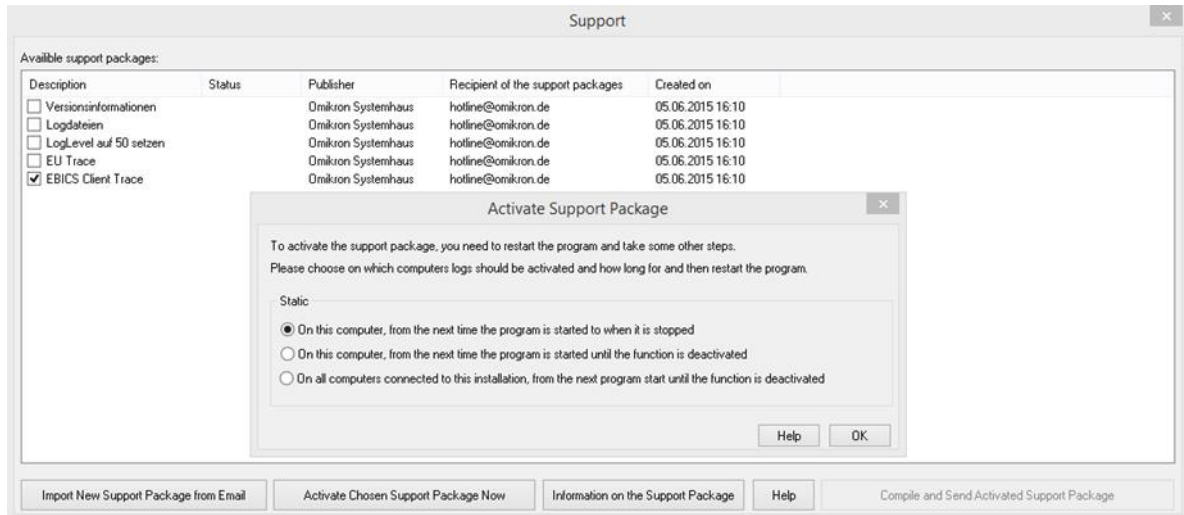
After you have activated a support package, without intervention of your technical departments, the stored information are compiled in an encrypted package which you can immediately send to your contact person.

3.10   Administration: Information
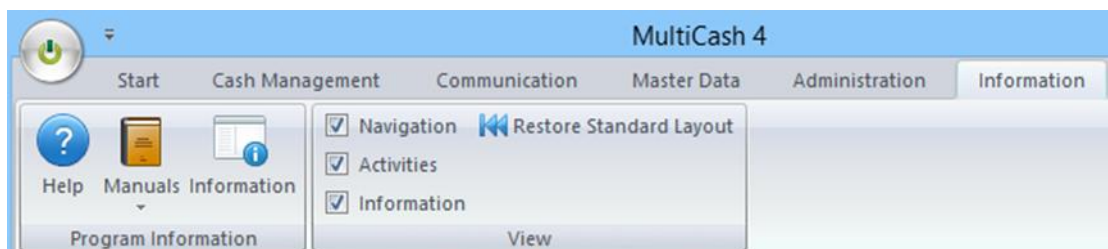
3.10.1 Program information

This area is largely unchanged and offers calls for help, manuals and program information (here the call for the software update has been removed).

3.10.2 View

Here, you can activate and deactivate the three information panes
- Navigation
- Activities
- Information

In addition, in case of emergency, the window and column sequences of all functions can be reset here again to the delivery status.

4   Changes in payment modules

4.1   Master data

4.1.1 Central administration of ordering party data

The ordering party data are centrally maintained in the Core module and then used across the system in all modules. Here, defined consequences arise which you should consider for the master data maintenance:

1. In payment modules, these master data cannot be created any longer, but only enhanced by process-specific information.

2. A structure of master data by importing payment files is no longer possible.

4.1.2 Index as access key

All master data are selected using an index (20 digits alphanumeric), which you can fill according to your needs as you want and can also later change.

Thereby, the previous limitation to 9.999 accounts is cancelled.

4.2   Order administration

4.2.1 Menu Payments

The menu structure basically matches the previous version:
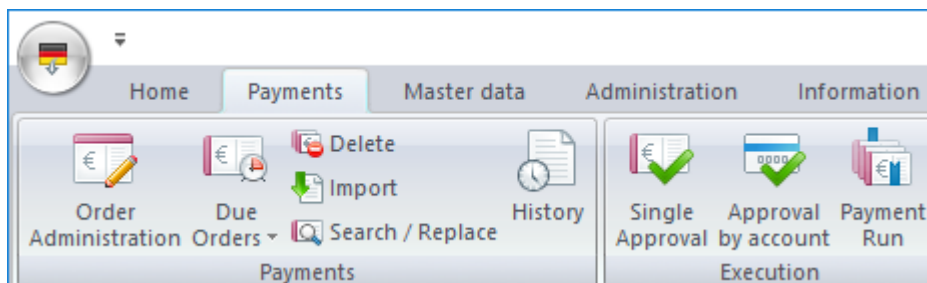
A new menu item for managing order batches has been introduced in selected payment modules (e. g. SEPA):
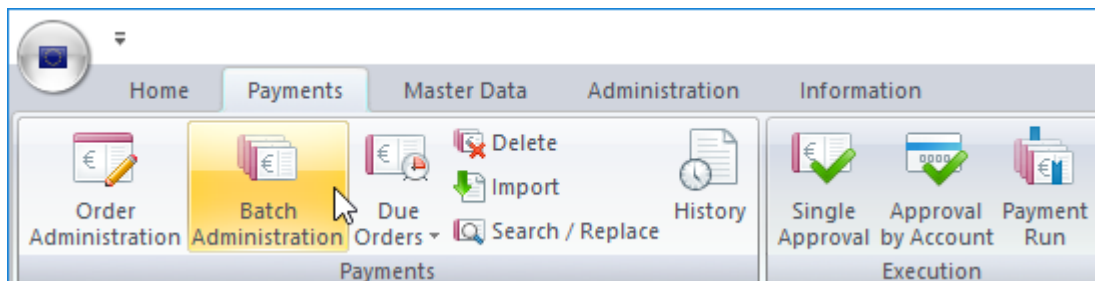
4.2.1.1 Order administration

Single Payments

In the order administration menu, the functions for approval by account (1), single approval (2) and payment run (3) have also been integrated, so that authorized users can carry out all steps in one menu item. Also the direct access to the history (4), e.g. for generating a new order from an earlier sent order is possible here.

The status of an order is displayed by a graphic symbol ("traffic light") (5):
- Pending approval (red traffic light)
- Approved, but not yet due (yellow traffic light)
- Approved and due (green traffic light)
- Approved and overdue (blue information symbol)
- Pending approval and overdue (yellow warning triangle)

Payment batches

Here, payment orders can be combined under freely selectable names to form an order lot. This results in the following advantages:

- Easy change of customer account/ordering party/execution date for entire batch
- Release for complete batch
- Importing a file or batch from a file into a batch

Add documents

In selected payment modules (e. g. SEPA) any number of internal documents can be added:

These documents are stored in the database and can be displayed in the following functions:

- Payment administration
- Payment history (payment module and core system data output)
- Send orders/signature folder

4.2.1.2 Payment import

The payment import is now always made in the background processing so that you can continue to work during the import. The result of the import process is shown in the information pane:
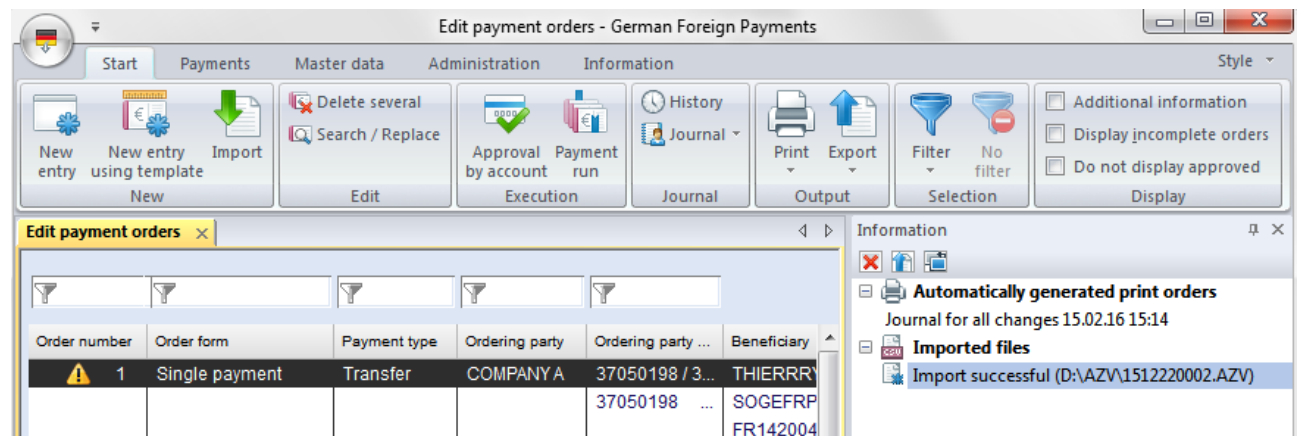
4.2.1.3 Approval

The "approval by account" uses the "normal" database overview so that here also the quick selection bar is available.

4.2.1.4 Payment run (formerly file creation)

The single-bank oriented file creation is omitted. Created payment files are always included in the communication manager and can be exported there by authorized users.

5   Annex

5.1   DATA MIGRATION FROM VERSION 3.23

The data migration requires current software releases in the old environment. In particular this is important for the software components listed below, which must be installed with the listed releaseses:

1. **Core module 3.23.002, Service Pack 25**
2. **Modul SEPA 3.20.040**

In addition please make sure that in the old environment an administrator account is defined. This administrator must logon in the new environment before data migration.

5.1.1 Preparation in old environment

The data quality in the old system environment is most important for the result of a data migration. For this reason, please maintain first the master data in your old installation like described below.

1. **Banks:**
   a) In the field "Alternative Bank ID" please enter the BIC, as you use this for this bank in the payment modules (e. g. SEPA).
   b) The link to the bank parameter file should be filled correctly.
2. **Accounts:**
   a) IBAN and BIC: For German and Austrian accounts IBAN and BIC are generated from bank codes and account number. For accounts from other countries please enter IBAN and BIC.
   b) In the account reference tables of the payment modules (SEPA, foreigne payments etc.) please check the link to the central accounts table in field "Account number funds management / payment orders". This is important if it is different from the field account number in the central account table of the core system (in particular German accounts of the Commerzbank AG and Deutsche Bank AG).
3. **Users:**
   a) Please note, that you need at least one user with administrative privilegs to migrate the data. The special user "ADMIN2" cannot be used for this purpose.
   b) If you use the signature option „Private Key Server": By using the assistent „Communication/Key media administration" each user must move his signature medium from „Private Key Server" to „Data bases".

4. **Bank parameter files:**
   Signature versions older than A005/M005 are outdated and shouldn't be used any more. Therefore, please check your bank parameter files: If a user with any bank is initialised with a signature version smaller than A005/M005, please send a new public key by using the assistant „Communication-Generate / Send ES key pair".

   Attention: If you are still using the old EBICS protocol version H002 with signature version A004, you are obliged to execute the assistant für migration to current protocol and signature versions. This is not possible in the new software generation!

5. **System parameter „Use external medium for EBICS authorization keys"**
   Storing the EBICS authentification keys on an external medium caused many support cases in the past and therefore will not be supported any more. Therefore, please check the system parameter „Electronic Signature / File Manager-Details on software ES and key location-Use external medium for EBICS authorization keys": If this parameter is activated, all communication users must import their EBICS authentication keys in the database by using the assistant „Communication-Key media administration".

5.1.2   Processing of data migration

If a data migration has been defined during the installation, the data are transferred from the old installation at first program start. The transferred tables and the result of the data migration are displayed in a message box and errors recorded in the system log:
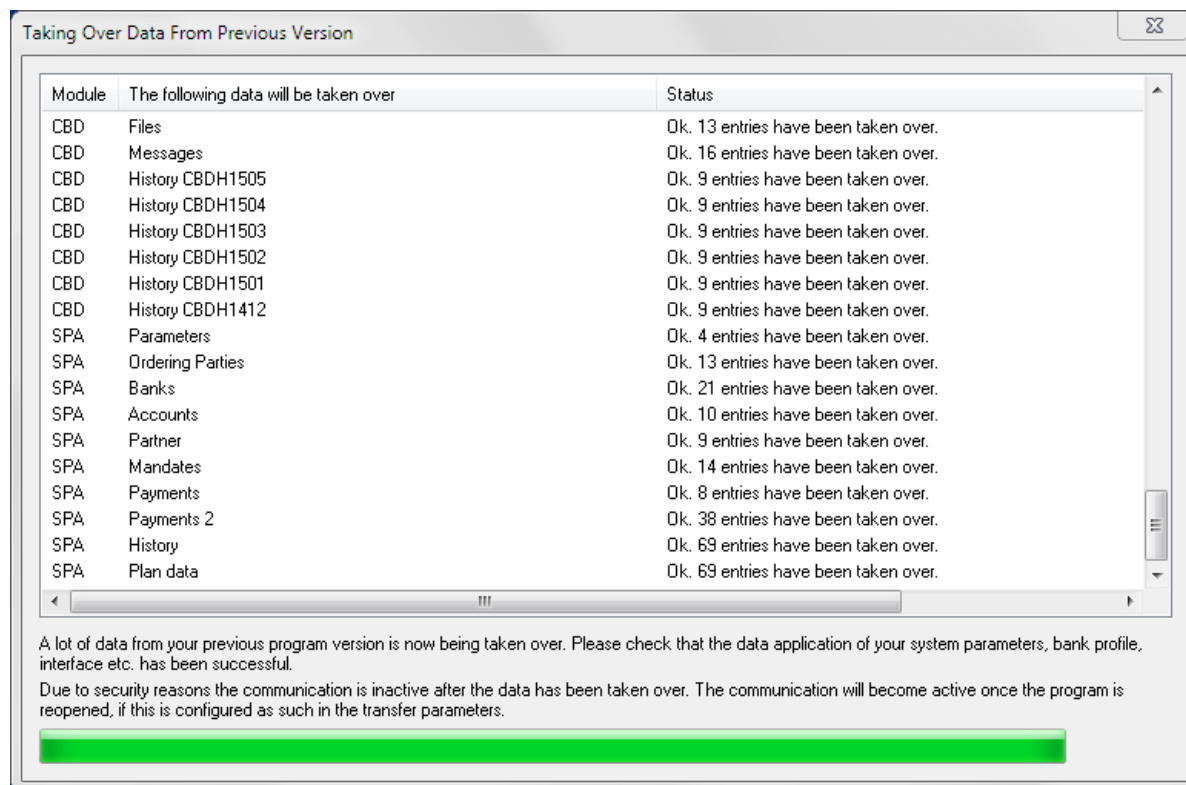
5.1.3   Check and correction of migrated data

Due to changed structures in the data model, not all data can always be transferred automatically. For this reason, some areas must be checked after the data migration and, if applicable, corrected. Additionally, there are partly new data elements which must be maintained manually. Please check therefore the following areas:

Aufgrund veränderter Strukturen im Datenmodell können nicht immer alle Daten automatisch übernommen werden. Daher müssen manche Bereiche nach der Datenübernahme kontrolliert und ggf. korrigiert werden. Darüber hinaus gibt es teilweise neue Datenelemente, die manuell nachgepflegt werden müssen. Bitte prüfen Sie daher folgende Bereiche:

5.1.3.1 User administration

All users and user groups are transferred. As the menu structure has been completely redesigned, checking and adapting of the permisson profiles is very important.

Note: A new functional profile "Maintain administrators" has been implemented, which can be used to restrict the permission to create and change administrators specifically. After the data migration, this is deactivated for all users / user groups. Activate this permission after the first program start as long as the user ADMIN2 is logged on. More information on this area is contained in Chapter 3.6.2.1 Functional profile.

5.1.3.2 Master data

1. Administration/Access classes: Please mark here the entry which shall be interpreted automatically as wage/salary when importing payment orders.

2. Companies: This data are added from the ordering party tables of all installed payment modules to the central table "Companies". If multiple modules contain identical ordering parties (the first name line is compared), then only a central entry is created. If, however, the syntax of the same company is different in multiple modules, then several company en-tries can arise for the same company. For using the software a "clean" data set is a basic requirement *(cf. Chapter 3.5.2 New: Companies).*

3. Banks: The banks are added from the central bank table and the bank tables of the pay-ment mod-ules. Also here several entries can arise for the same bank, if it is created in mul-tiple modules both with the local bank code and with the BIC *(cf. Chapter 3.5.3 Banks).*

4. Accounts: These data are added from the central account table and the account tables of all in-stalled payment modules. Also central account entries can arise twice if the same ac-count exists with different Bank IDs (local and BIC) or even different account numbers *(cf. Chapter 3.5.4 Ac-counts).*

5. Account classes: For account classes, a reference table has been implemented where you can store descriptions *(cf. Chapter 3.5.5 New: Account classes).*

Please check and clean the transferred master data and add the missing new data ele-ments, in particular country codes.

6. Session Types: For bilaterally agreed session types (ID starting with X, Y or Z), which atre using the SEPA format sub-system, please change the parent order type from „CCM" to „SPA" (menu Master Data/General/Reference Tables/Session Types, tab Transfer Types).

5.1.3.3 Predefined output orders / Report Engine

This function has been completely redesigned and is now called "Report Engine". Here, some or-ders can no longer be added automatically because possibly the formerly used list types no longer exist or the selection definitions no longer match the new data model. Please check whether your old orders have been correctly transferred and, if applicable, add the missing data. Details on this subject can be found in Chapter 3.7.2 Report Engine (formerly Output Autoroutines).

5.1.3.4 Processing of incoming account information

Data collected by the banks are first saved in the database. For the delivery to booking systems, the following parameters must be set *(cf. Chapter 3.8.1 Parameters)*:

Communication	
⊞ **Settings**	
⊟ **Communication manager**	
Status when minimum number of signatures is reached	Pending transfer
Internal approval also for manaul payments	☐
Total checking algorithm	MD5
Protection against manipulation	Physical file
Double entry check	Physical file
Time period for double entry check	30
No currency conversion	☐
Maintain history	Annually
Storage period for History	0
Automatic file export	☑
Automatically uncompress received files	☐
Automatic file path export	O:\Data\IN
Do not show files received from special services in the information window	☐

5.1.3.5 User-Exits

If you use user exits for automated communications postprocessings, this must also be adapted, as the functionality has been completeley revised *(cf. Chapter 3.4.5 User Exits)*.

5.1.3.6 Interface definitions/saved selections

As the data model has been partly changed considerably, all interface definitions (export files) and saved selections must be checked and, if applicable, updated *(cf. Chapter 3.7.1 Import/Export)*.

5.1.3.7 Communication

All bank access data will be converted and will be operational immediately.

Note: However, parallel bank communication of two environments with the same customer ID must be <u>absolutely avoided</u>, because it can cause serious problems! Therefore, after first program start communication in general is disabled and all active communication jobs are switched to status "Waitung for communication". At second program start communication will be activated but the communication jobs will be executed after manual activation only. Please don't do that before you will have finalized your preparation and production will be switched from old to new environment.

5.2   Check list for the system configuration

Subsequently, we describe for you the procedure for the first configuration of the new MultiCash Generation. We recommend to follow the suggested sequence, as this has proven to be efficient:

No.	Configuration step	Chapter	Done
1.	Installation of the desired variant	3.1.2	
2.	First logon with ADMIN2: Creation of an administrator user (or "System administrator") and assignment of appropriate rights	3.1.1	
	Note: Please note here the special permission for maintaining administrators	3.6.2.1	
3.	Logon with the system administrator		
4.	[optional] Docking the panes (navigation, information & activities) to the desired position	2.4.1	
5.	[optional] Maintaining system parameters (administration/parameters), e. g. • Transmission parameters/ Proxy settings • Communication manager/ Automatic export of received files and data path automatic export • Electronic signature/ Storage medium / USB-Stick	3.8.1	
6.	Maintenance of basic master data		
	a) Company/Companies (administration/ master data/ company)	3.5.2	
	b) [optional] If, for administering a group hierarchy, the module "Group administration" is installed, maintain now your group structure in menu item "Group units"	3.6.4	
	c) [optional] Access classes: If you want to use the access control for confidential payments, create the required access classes, e. g. HR / Wage/Salary	3.6.1	
	d) Currencies: Rate of used currencies, non-used currencies can be deactivated.		
7.	[optional] Creation of required user groups (administration/user group)	3.6.2	
8.	Creation of other users (administration/ users)	3.6.1	
	a) If the particular user shall communicate with the bank, choose an appropriate authorization profile with power of attorney		
	b) Allocation of the company to each user		
	c) [optional] Enter the e-mail address of the particular user under contact details in order that this receives automatically an e-mail with the password initially assigned by you when clicking on "Save and e-mail notification".		
	d) Make the desired settings for the particular user in the functional and data profile as well as in the access classes, if not already made using a group allocation.		
9.	Create bank accesses (communication/ bank accesses) and enter • Company • User	3.4.6	
10.	Logon and first initialisation with each user with power of attorney, at least with the default user (communication/ first initialisation).		
11.	Maintain other master data		
12.	a) [optional] Retrieve an HKD (=customer and user information) (communication/ collection orders). The banks & accounts are automatically created and also the company of the bank access is automatically added as ordering party for banks Instead by HKD request, you can also maintain the master data (banks & accounts) manually	3.4.3	
	b) Check and maintain missing data in the automatically created master data (banks & accounts), in particular	3.5.3 3.5.4	

No.	Configuration step	Chapter	Done
	• Access key (field index) • Account name • Country code • Account number/Payment account number		
13.	[optional] Adaptation of the user interface according to own preferences • Navigation menu: Size, arrangement and sequence of menu items • Size and arrangement of information and activity panes • Display style • Toolbar for quick access		
14.	Master data payment modules. Maintain specific fields or check records in the following tables: • Banks • Accounts • Ordering parties		

5.3   Overview of security-relevant changes

The security concept has been fundamentally revised and in the following areas optimized:

No.	Measure	Chapter
A.	**Risks from attacks from the system environment**	
1.	Consistent separation of application and data with the possibility of access protection by appropriate user rights on system level	2.2.1
2.	Encrypted database files and encrypted connection between application and Database Engine	2.2.2
3.	Password storage secured by one-way function according to current standard. Due to this conversion, during the update to the new version, the password history is first deleted (if activated) and then rebuilt.	
4.	Data relevant to security (e. g. saved communication passwords for unattended data retrievals) secured by complex encryption	
5.	Encrypted transport container for analysis data in the support function	3.9.2
6.	All executable components (*.exe and *.dll) are delivered with "Authenticode signature"	
B.	**Risks from attacks by application users**	
1.	Special administrator for first logon (ADMIN2) limited to user configuration	3.1.1
2.	Special administrator with all rights removed (SYSADMIN)	3.1.1
3.	New activation function for user accounts after first logon with password change	3.8.1.2
4.	Enhanced password complexity rules	3.8.1.4
5.	Application of password complexity rules also to the communication and signature passwords (for Software-ES)	
6.	New functional profile "Maintain administrators", which can be used to control this permission specifically	3.6.2.1
C.	**Operational risks**	
1.	Automated routing definition for payment files	3.4.2.1
2.	Adapted protection against manipulation for data delivery from external systems	3.4.2.4
3.	Adapted double file check	3.4.2.5

5.4   Comparison of menu structures Version 3.2 / Version 4.0

5.4.1 Core module system

Generation 3.2		Generation 4		
Function	Old position	New name	Ribbon	Functional group
Print parameters	Menu file		Administration	General parameters
Exit	Menu file		Application tab	
Remove application	Menu file	eliminated		
Delete old data	Menu file	eliminated		
Import account information	Menu file		Cash Management	Administration
New password	Menu users		Application tab	
Logon	Menu users		Application tab	
User groups	Menu users		Administration	Permissions profiles
Users	Menu users		Administration	Permissions profiles
Master data log	Menu users	Journal	Administration	General
New entry of user with wizard	Menu users	eliminated		
Wizard for standard jobs	Menu users	eliminated		
Balances	Menu account information	Book balances	Cash Management	General
Statements	Menu account information		Cash Management	General
Transactions	Menu account information		Cash Management	General
Value-dated balances	Menu account information	Cash Manager	Cash Management	General
Plan data	Menu account information		Cash Management	Plan data
Plan data reconciliation	Menu account information	eliminated	Cash Management	
Manual plan data reconciliation	Menu account information	Manual reconciliation	Cash Management	Plan data
Reconciled plan data	Menu account information		Cash Management	Plan data
File manager	Menu Communication Chapter 1	Signature folder / Send orders / Collection orders	Communication	Communication manager
Execute Comms. favourite	Menu Communication Chapter 1	eliminated		
Wizard Collect data from several banks	Menu Communication Chapter 1	Order batch Collection orders	Communication	Communication manager
Comms. parameters	Menu Communication Chapter 2	Transmission parameters	Administration	General – Parameters
Bank parameter files	Menu Communication Chapter 2, Bank parameter files	Bank accesses	Communication	Administration
First initialisation	Menu Communication Chapter 3		Communication	Administration
Generate/Send ES key pair	Menu Communication Chapter 3		Communication	Administration – Wizards
Change ES password	Menu Communication Chapter 3		Communication	Electronic signature
Change Comms. password	Menu Communication Chapter 3	Change transmission	Communication	Administration – Wizards

Generation 3.2		Generation 4		
Function	**Old position**	**New name**	**Ribbon**	**Functional group**
		password		
Change EBICS Comms. password	Menu Communication Chapter 3	Change transmission password	Communication	Administration – Wizards
Administer key media	Menu Communication Chapter 3		Communication	Electronic signature
Convert FTAM/FTP bank access to EBICS	Menu Communication Chapter 4	eliminated		
Replace EBICS authentication key	Menu Communication Chapter 4		Communication	Administration – Wizards
Reset an MCFT access	Menu Communication Chapter 4		Communication	Administration – Wizards
Block a Comms. access	Menu Communication Chapter 4	Block a bank access	Communication	Administration – Wizards
Reference tables Banks	Menu Reference table		Master data	Bank data
Accounts	Menu Reference table		Master data	Bank data
Currencies	Menu Reference table	Currencies	Master data	General
Prime interest rate	Menu Reference table		Master data	Bank data
Countries	Menu Reference table		Master data	General
Details	Menu Reference table		Master data	General – Reference tables
ID-Groups	Menu Reference table		Master data	General – Reference tables
Historical currency rates	Menu Reference table	Historical currencies	Master data	General
Access classes	Menu Reference table		Administration	Rights profiles
Group units	Menu Reference table		Administration	Rights profiles
Predefined output orders	Menu Administration	Report Engine	Administration	Interfaces
Execute Export	Menu Administration Import/Export		Administration + Start ribbon of each database	Interfaces
Display text files	Menu Administration	eliminated		
Session types	Menu Administration		Master data	General – Reference tables
Parameters	Menu Administration • System parameters • System parameters Cash Management		Administration	General - Parameters

Generation 3.2		Generation 4		
Function	Old position	New name	Ribbon	Functional group
Display system log	Menu Administration	Log	Administration	General
Historical system logs	Menu Administration	Historical logs	Administration	General - Log
Search in system logs	Menu Administration		Administration	General – Log - Display
View	Menu Administration	eliminated		
Print	Menu Administration		Administration	General – Log – Output
Maintain Import/Export file	Menu Administration -Import/ Export	Interfaces	Administration	Interfaces
Import reference tables	Menu Administration- Import/ Export	Import	Administration	Interfaces
Test data integrity	Menu Administration	Data integrity	Administration	Software
Backup	Menu Administration	eliminated		
Toolbar	Menu View	eliminated		
Status bar	Menu View	eliminated		
Info and log manager	Menu View	eliminated		
Comms. bar	Menu View	eliminated		
Comms. logging	Menu View	eliminated		
Current user	Menu View	eliminated		
Large symbols	Menu View	eliminated		
Help	Menu Help		Information	Program information
Manuals	Menu Help		Information	Program information
Info	Menu Help		Information	Program information
*	New	Input history	Communication	General
*	New	Output history	Communication	General
*	New	Encryption	Administration	General
*	New	Support	Administration	Software
*	New	Account classes	Master data	General – Reference tables
*	New	Interest conditions	Master data	Bank data
*	New	Companies	Master data	Bank data
*	New	Uninstall modules	Information	Info
*	New	Software Update	Information	Software
*	New	Restore standard layout	Information	View
*	New	Navigation	Information	View
*	New	Activities	Information	View
*	New	Information	Information	View

5.4.2 Payment modules (Example Foreign Payments Germany)

Generation 3.2		Generation 4		
Function	Old position	New name	Ribbon	Functional group
Exit program	Menu File	-	Application tab	
Payment orders	Menu Payment orders	Order administration	Payments	Payments
Payment orders without returns	Menu Payment orders	Order administration	Payments	Payments
Display due payment orders	Menu Payment orders	Due orders	Payments	Payments
Delete payment orders	Menu Payment orders	Delete several / Delete	Payments	Payments
Import payment order files	Menu Payment orders	Import	Payments	Payments
Search/ Replace	Menu Payment orders	-	Payments	Payments
Payment history	Menu Payment orders	History	Payments	Payments
Approval by account	Menu Payment orders – approval	-	Payments	Execution
Single approval	Menu Payment orders – approval	-	Payments	Execution
Create payment order files	Menu Payment orders	Payment run	Payments	Execution
Display payment order files	Menu Payment orders	eliminated	-	
Merge payment order files	Menu Payment orders	eliminated	-	
Banks	Menu Reference tables	-	Master data	Bank data
Accounts	Menu Reference tables	-	Master data	Bank data
Ordering parties	Menu Reference tables	-	Master data	General
Beneficiaries	Menu Reference tables	-	Master data	General
Taxes	Menu Reference tables	-	Core module – Master data	General – Reference tables
Payment terms	Menu Reference tables	-	Core module – Master data	General – Reference tables
Currencies	Menu Reference tables	-	Core module – Master data	General
Countries	Menu Reference tables	-	Core module – Master data	General
Product list	Menu Reference tables	Products	Module Central Bank Declarations	Master data – Reference tables
Service ID Codes	Menu Reference tables	-	Module Central Bank Declarations	Master data – Reference tables
Payment details	Menu Reference tables	-	Module Central Bank	Master data – Reference

Generation 3.2		Generation 4		
Function	Old position	New name	Ribbon	Functional group
			Declations	tables
Maintain Import/Export file	Menu Administration – Import/Export	Define interface	Administration	Interfaces
Execute Export	Menu Adminstration – Import/Export	-	Administration	Interfaces
Import reference tables	Menu Administration – Import/Export	Import	Administration	Interfaces
Delete reference tables	Menu Administration – Import/Export	eliminated		
Master data log	Menu Administration	Journal	Administration	General
Payment Parameters	Menu Administration	-	Core module - Administration	General - Parameters
Display text files	Menu Administration	eliminated		
	Menu View	eliminated		
	Menu Help	eliminated		
*	New	Delete interfaces	Administration	Interfaces
*	New	Activities	Information	View
*	New	Information	Information	View