Welcome to the future

Release 7: Logistic

EG www.eg.dk/aspect4

Let's go further

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1 Introduction

ASPECT4 release 7 focuses on automation as a systemwide feature and introduces a number of innovations to ASPECT4.

ASPECT4 release 6 introduced a new browser-based client platform with a new look for ASPECT4 in the form of UUI (Unified User Interface) for a consistent user experience across clients and subsystems with a responsive design. Release 7 is based on the very same UUI principles and is thus fully recognisable.

With an efficient user interface, release 7 is instead about adding efficiency on other fronts, including automation of otherwise manual tasks, streamlining and simplifying integration tasks, as well as streamlining processes that connect ERP and a user's daily life filled with supplemental digital information and dialogue.

For each release since the switch to version 3, we have maintained the following benchmarks:

- Ease-of-use
- Ease-of-integration
- Ease-of-collaboration

In short, release 6 was heavily influenced by the "Ease-of-use" theme, while release 7 addresses the other two themes to a greater extent.

Prior to release 7 we carried out thorough analyses of technological trends and there is no doubt that we are being swept by a wave of automation. Automations are predominately occurring via robots, and we see office robots, software robots or simply "bots" making an appearance. And now in ASPECT4, as well.

In release 7 you can create, train and unleash bots to carry out traditional or otherwise manual tasks in ASPECT4. The possibilities are endless and an important point is that the bots are general and can be trained for an advanced task, which can otherwise be solved manually by a user through ASPECT4 Client.

ASPECT4's Robotics Process Automation (RPA) solution differs from the very general RPA solutions from third-party providers by being completely oriented towards and designed for ASPECT4, ultimately providing the easiest way to build robots and, at the same time, the most efficient way to execute them. Unlike a foreign RPA solution, ASPECT4 robots can be executed in the backend, even if the training has been done in the frontend (through the ASPECT4 Client). That relationship is of crucial importance for the robots' robustness and speed.

The new robots are launched as an extension of ASPECT4 WFM (Workflow Management) and are a great solution for transforming manual workflow tasks into automatic tasks – ultimately transforming the overall workflow to be exclusively automatic.
However, it is also important to emphasise that robots can be executed outside workflows as stand-alone processes that can be activated in conjunction with other user tasks, through periodic time management or a triggering of system events.

This means the robots work tirelessly and persistently click-by-click, field-by-field on the tasks that seem trivial to a user, but where repetitive actions increase the risk of human error.

The next focal point for release 7 is even more emphasis on "ease-of-integration", and here, too, the RPA solution acts as an enabler. In general, the topic has been dealt with through many releases after multiple expansions of ASPECT4 Business Connector (ABC) and based on ABC as a message hub for asynchronous communication. Now the concept is being expanded with a focus on synchronous communication through the usual web service concepts within SOAP and REST.

Release 7 has started a journey in which ASPECT4, as a software component of a larger IT landscape, offers and publishes increasingly more APIs (Application Programming Interface) through modern web service standards. Moreover, it is an increasingly popular architecture trend that substantially supports the latest Service Oriented Architecture (SOA) principles that make it easier and more cost-effective to build best-of-breed solutions, in which many different sub-solutions are combined to complete a comprehensive solution to the company's end-to-end process, or even the supply chain's overall end-to-end process, as service orientation can have both an in-house and an external-oriented purpose.

One of the special innovations in this case is that robots can also be displayed as REST web services, so anyone who can build and train a robot can also build a REST web service and publish it in the outside world. Through this web service a foreign system can therefore "operate" ASPECT4 in a controlled way and enter or output data.

The option and solution are based on the fact that a robot is also generally defined with an interface in the form of input and output parameters.

Not all surrounding systems and business partners can be part of a set-up that communicates through web services. However, many systems or partners will be able to produce an information spreadsheet for use in ASPECT4 for creating/correcting customers, items, prices and much more. A major new feature is that an ABC destination can now be created in the form of a robot powered by spreadsheet rows. With manual uploads or other forms of receiving spreadsheets, it is now no longer necessary to program so-called adapters. These can be replaced by a robot and uploading a spreadsheet is quite simply transformed into repeated robotic executions. Simply put, the associated robot enters the spreadsheet columns row by row.

A third major new feature is that users now have the ability to attach any document, file or e-mail to ASPECT4 business objects in a very simple and intuitive way. Additional documents or e-mail threads can be attached to customers, suppliers, items, workflows, orders, jobs and other types of what we call "business objects" through simple drag and drop. The solution uses the "stepping stone" technique that was introduced several releases ago. Using the so-called "alias" link on screens, business objects can be configured to carry information such as notes, news, infoboards and links to applications. The concept has now been expanded with attachments.
By using configuration, a number of document categories are created that are used in part for a logical grouping of the attachments and in part for mapping the link to selected stepping stone keys (and thus the type of business object). Creating an attachment is, in its simplest form, a matter of dragging a document to the relevant ASPECT4 screen and then releasing it, after which the mapping takes place according to

configured rules. From the corresponding screen or other locations where the same business object appears, the user can see from a list which attachments they or others have created and also open or download the attachments.

A special point regarding attachments is that these can also be created by other actors besides users. In this situation we are talking about system documents loaded via ABC, downloaded as a photo from a mobile CrossPad app or perhaps most commonly: Created and saved by DocManager as a business document. With configurations, these system documents can be configured per category to appear in the list of attachments as well, along with manual ones. There are some limitations to these system documents. For example, they cannot be deleted. Note that the underlying storage for attachments is one of two archive options – either ASPECT4 internal archive or Next from Nextway (formerly Multi-Support).

The super easy method of creating attachments from basically "anything", together with a similarly easy method of obtaining an overview of whatever might be linked to documents, files and e-mail threads in any relevant context of use, provides a unique option for increasing the overview across ERP solutions and other sources of information. Everything is gathered in one place and in a relevant context.

With release 7 you are well positioned to reap even more benefits through streamlining – an eternal goal and a very important competitive parameter as well.

1.1 Content of ASPECT4 Logistics

Much of our attention has focused on the new features in ASPECT4, and especially with regards to Robotics and Attachments we have high expectations for ASPECT4 Logistics where we expect many of our customers to benefit from these new options.

In addition to this, the release contains a number of major and minor features worth mentioning:

1.1.1 Shared Service

Customers of ASPECT4 Logistics have received increased focus enabling them to work across companies. It could take place in a shared service organisation that acts as a point of contact for the customers, regardless of which company the customer belongs to.

A shared service organisation will often have a global set-up so the company can stay open for more hours of the day.

Therefore, shared service applications have been established that permit working across multiple companies without having to switch, thereby becoming more efficient in order processing.

1.1.2 SQL handling of retrieved texts

SQL search and filtering capabilities have been expanded.

Many more fields are now SQL supported in this release. In particular, this includes a whole series of retrieved texts that were not previously supported by SQL. For example, product descriptions and customer

names are now supported. In addition, a large number of other retrieved texts are supported. For example, this includes all system parameter names, which are also displayed in many applications.

At the same time, SQL support also allows you to sort with very good response times.

As something new, you can also filter the columns with supplementary texts. These are also SQL supported and thus provide really good response times, even for large amounts of data.

Several other new features are also included in the ASPECT4 Logistics release. You can find further details in this release notes document.

1.2 Additional content in ASPECT4 Foundation

Several other new features are also included in the ASPECT4 Foundation release. You can find these in the ASPECT4 Foundation's release notes.

2 Benefits of using the new functions in release 7

2.1 ASPECT4 Robotics

Under release 7's theme "Robotics", "ASPECT4 Robotics" – or in everyday speech, "robots" or "bots" – is now launched (and unfortunately easily confused with application 0160 "Robot/Annexed to job management system").

2.1.1 What can a robot do?

- Perform start-ups, data entry and navigation tasks in one or more ASPECT4 applications in a pre-recorded sequence
- Enter values other than those originally recorded using selected parameters
- Initially, prompt users for current parameter values
- Execute with parameters automatically retrieved from EXCEL sheets and run for each filled-in row
- Return selected values to the calling program (e.g. workflow module call)
- Enable user interaction during online execution (attended).

2.1.2 What a robot CANNOT do

- Perform client functionality, such as table sorting and filtering
- Run certain ASPECT4 plug-ins, such as Business Connector, QueryManager and ABC Drift
- Run applications or programs outside ASPECT4 – including websites
- Make logical choices between values and vary the course of action depending on current data
- Unattended recording or executing in ASPECT4 Client for Web
- Manage pop-ups in a process flow

2.1.3 How to execute a robot?

- From the new application 0163 "Robots", which manages all robots
- As a stand-alone application
- From application 160 "Job Robot"
- From workflow (as an event or module call)
- From query (as an event)
- As a destination in ABC document
- From the "Import from Excel" button in the TABLE ribbon in the selected application
- Via REST API calling
- From stepping stone calling.

2.1.4 Additional functionality

- Export and import robot
- Assign robot to updates
- Execution history
- Authorisation of robots (common, personal, role)
- Wizard for mapping to ABC document for EXCEL import

- Wizard for set-up as a robot application
- Look-up and validation of prompt parameters (module or SQL look-up).

2.1.5 Robotics in ASPECT4 Logistics

ASPECT4 Logistics comes with five standard robots. These simply serve as an inspiration for what robots can be used for and how. If they happen to solve a specific need for your business then this is an added benefit.

The idea is that you can use these examples as a starting point to create the versions that the individual customer requires.

We include these:
1. Update an stocktake journal based on counted quantities in a spreadsheet.
2. Change an item's classification – change three item groups and the item's discount group.
3. Create purchase orders (for application 7101 "Purchase order transactions") from a spreadsheet.
4. Create a user in Workflow Management (known ASPECT4 user).
5. Create an equipment (in application 9151 "Equipment") from a capacity resource.

Points 1 and 3 are imports from a spreadsheet.
Point 2 is initiated by entering an item number.
Points 4 and 5 are initiated as right-click selections on the lists or as a stepping stone from the same location.

2.2 ASPECT4 Attachments

Attachment management is a new and general feature of ASPECT4 that allows enriching ASPECT4 business objects with separate information in the form of documents, images and other types of files, including e-mails from Outlook.

Attachments is the tool that enables a company's paper archive to be stored to a large extent in the relation where it rightfully belongs. Today we see many order processors (both in purchases and in sales) who print orders/confirmations, etc., and archive them in folders. Going forward, a simple drag and drop will replace this workflow. In addition to saving lots of paper and printer time, the documents also become more accessible without having to be physically close to the paper archive. Additionally, think of this as ASPECT4's contribution to climate change mitigation.

Examples include item certificates, drawings for production orders, e-mails related to quotations and photos associated with freight services.

The solution is divided into three parts for catch (upload), archiving and publish (display).

We sought a very simple solution with catch, where the user can basically use "drag and drop" to attach all kinds of files from their PC or from file shares/sites that they have access to. A special option is to extract an e-mail from an inbox or other e-mail folders. The file is then "dropped" on the screen containing the business objects where the attachment is supposed to go. If there are several options, the user is presented with a pop-up screen where they can choose the document category in question.

In principle, only one business object is attached, and these are identified using the "stepping stone" concept.

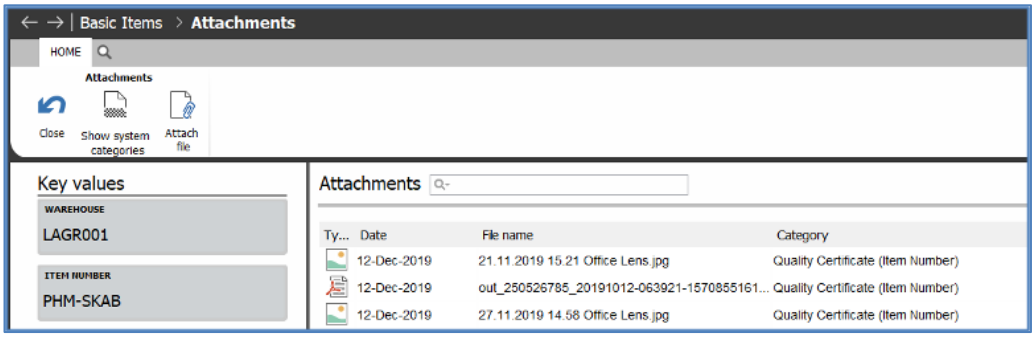
If the customer number is available on the screen, there will typically also be an alias available behind it with the value corresponding to the customer number.

The attachment is archived under document category and configured stepping stone key in either ASPECT4's internal document archive or Next from Nextway (formerly Multi-Support).

With regard to publishing and subsequent accessibility, attachments can be easily displayed in a list from the same screen where they were archived, or in other applications and screens where the same business objects are displayed. The list is in the clients' "Quick Access bar" under a paper clip illustrating an attachment.

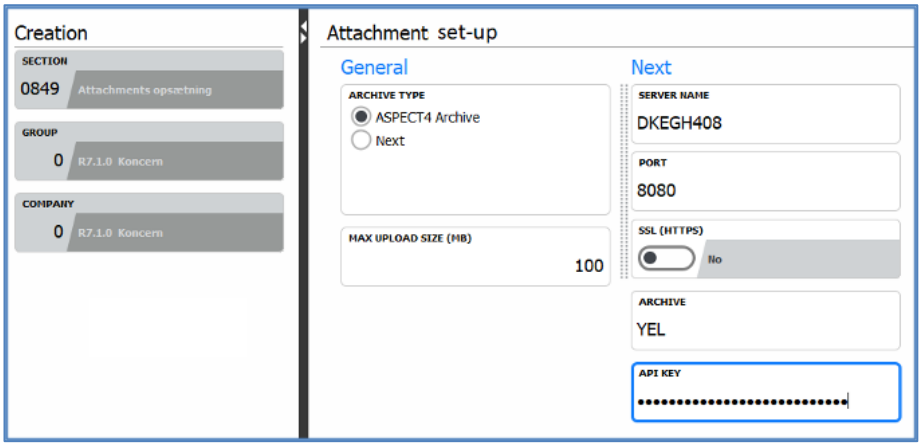
From the list, individual attachments can be downloaded, deleted, renamed or associated with a description. This applies to both ASPECT4 Client and ASPECT4 Client for Web. In the classic client, attachments can also be opened directly from the list.

From the list of attachments, the user can also choose an "Upload" option as an alternative to drag and drop, thus browsing to the desired files. Note that for both options, the user can select multiple files in the same workflow, if relevant.



2.2.1 Configuring Attachments

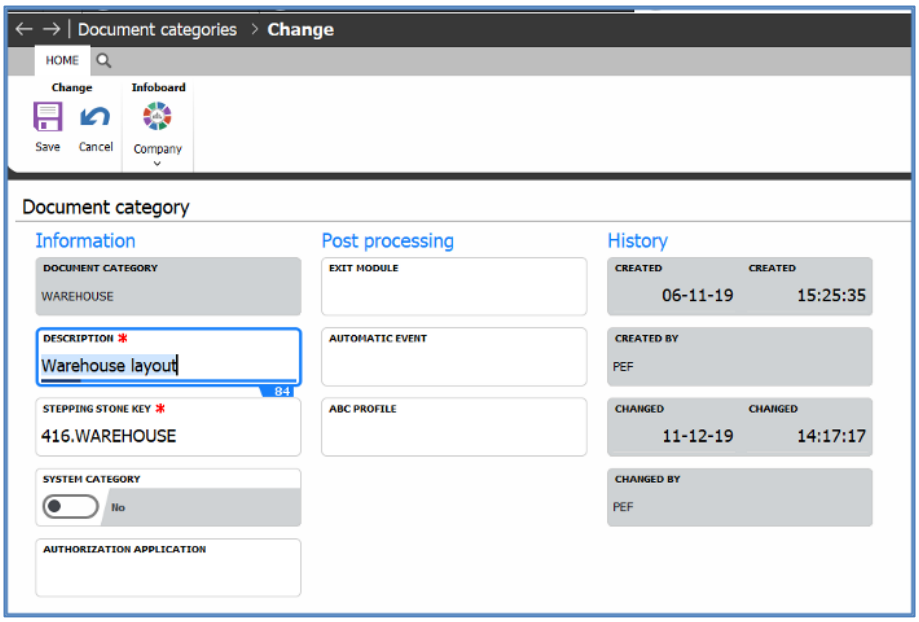
In general records section 849 "Attachment set-up", you will find a basic configuration of attachments, including which backend solution is used for storing attachments. Here you can choose between ASPECT4's internal archive or Next from Nextway (formerly Multi-Support).



In application permissions for applications 0X00 "ASPECT4 Client", you can indicate whether the feature is allowed per function group or user.

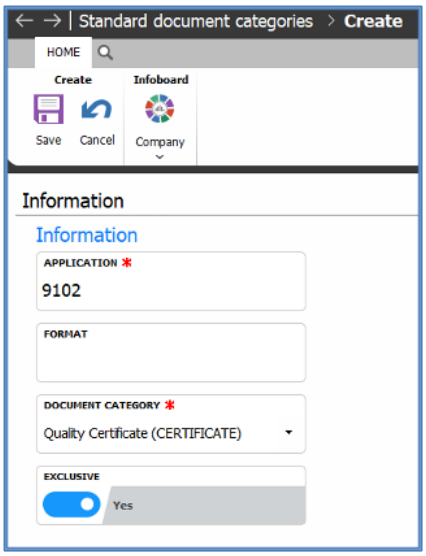
In Application 0261 "Document categories", you can define the company's desired categories in relation to the relevant grouping. A document category is associated with a stepping stone key by specifying aliases (including related aliases), and therefore the document category also serves as a definition of which files are to be linked that are uploaded to the relevant category. Several other attributes are used to fine-tune the solution, for example, reference to the application from which an authorisation permission is inherited for that document category. If the user does not have permission for this application, they will not be able to attach or view files in that category.

Also from application 0261 "Document categories", mapping rules can be set up against the archive solution Next as well as DocManager, with regard to the concept of system documents.



Finally, there is a configuration option when using application 0262 "Standard document categories". For each application (or each format per application) you can define which document category is "most important" in relation to a given application, provided the configuration occasions several possible document categories in the application. The purpose is to make it as simple as possible for the user to make attachments in a particular application.

A default category will appear at the top of a selection list when an attachment is created. A further option is to define the default category as the only possible one. In doing so, you will be able to add attachments to the simplest possible operation, since only one choice is possible, thereby omitting the choice dialogue. Creating attachments then becomes simply a question of "drag and drop".



3 Major features

3.1 Shared Service

With the options available, many companies may want to "phase out" certain applications such as 6102 "Invoice orders", 6103 "Credit orders", 6104 "Firm orders", 6105 "Quotations", 6106 "Blanket orders", and 6300 "Sales orders" and instead try the new shared service applications that offer a unique overview of open orders (all order types) to a customer or to a group of customers.

Customers of ASPECT4 Logistics have received increased focus enabling them to work across companies. It could take place in a shared service organisation that acts as a point of contact for the customers, regardless of which company the customer belongs to.

A shared service organisation will often have a global set-up so the company can stay open for more hours of the day.

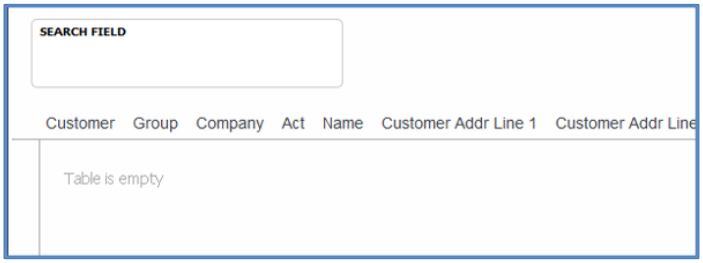
Therefore, shared service applications have been established that provide the ability to work across multiple companies without having to switch, thereby becoming more efficient in order processing.

New applications are being created to work with cross-company orders.

- Application 6001 "Shared service – sales orders"
- Application 7001 "Shared service – purchase orders"

Entry to the orders is through customers and suppliers, i.e. the one who orders the items.

When the application opens, you start with an empty search box – and with an empty list.



You can search the following information on customer/suppliers

- Customer/supplier number
- Name
- Address fields
- Postal code
- Contact person
- Internal name
- Telephone number
- VAT number

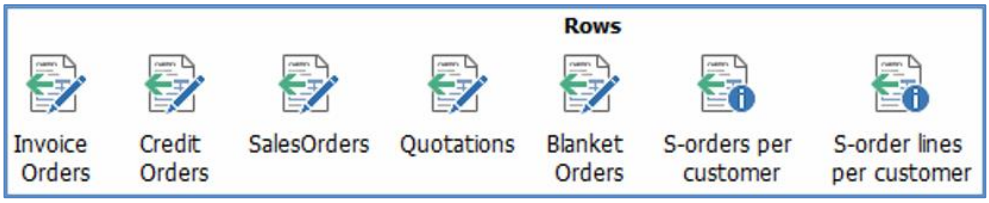
When the search comes up with a result, you can put a choice of active/inactive on the customer/supplier, which can then be selected.

The result of the search is
- Customer/supplier number
- Group
- Company
- Active/Inactive
- Name and address
- Number of open invoice orders (the number is generated using a field control identifier)
- Number of open credit notes (the number is generated using a field control identifier)
- Number of open firm orders (the number is generated using a field control identifier)
- Number of open quotations that have not expired (the number is generated using a field control identifier)
- Number of open blanket orders that have not expired (the number is generated using a field control identifier)
- Postal code
- Contact person
- Internal name
- Telephone number
- VAT number

For suppliers, the sequence control registers are replaced by the following:
- Number of open confirmed purchase orders
- Number of open unconfirmed purchase orders
- Number of open blanket purchase orders
- Number of purchase proposal lines to the supplier
- Number of freight purchase lines to the supplier

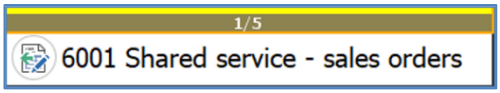
When the search result is displayed, a number of outputs are available in the ribbon at the top of the application.

Application 6001 "Shared service – sales orders" outputs to the following applications:
- Application 6102 "Invoice orders"
- Application 6103 "Credit notes"
- Application 6104 "Firm orders"
- Application 6105 "Quotations"
- Application 6106 "Blanket orders"
- Application 6531 "Customer's orders"
- Application 6533 "Customer's order lines"



When selecting an output, you must switch to the application number that the selection indicates in the customer's company. For example, if you select Sales orders, application 6104 "Firm orders" will open in the customer's company.
When application 6104 "Firm orders" opens, only orders belonging to the specific customer are displayed (you can perform the activities that you normally can from the application and have access to the associated shortcuts – but you cannot open new applications in the company you have just switched to). Therefore, from the user's viewpoint, no new company should be opened.

It will be possible to see which company you are working in via a checkbox at the top of the application tab. It is indicated as "primary company/order affiliate company".



Application 7001 "Shared service – purchase orders" outputs to the following applications:

- Application 7102 "Purchase orders"
- Application 7105 "Unconfirmed purchase orders"
- Application 7106 "Blanket purchase orders"
- Application 7108 "Freight purchase orders"
- Application 7501 "Supplier purchase orders"
- Application 7503 "Supplier purchase order lines"

When exiting the called applications, return to the list in application 6001/7001.

Access control
Regarding access control for the applications in the respective companies, we do not normally show outputs in ribbons for applications that you do not have access to. This solution displays the applications that you can access in the company where the application was initiated. For example, if you call application 6104 "Firm orders" in a company that you do not have access to, you will receive the normal error message stating that the user does not have permission to use the application.

Assumptions and constraints
As the applications are expected to be widely used, we recommend that clients use them, but they can also be run as web applications. This will be most relevant in copy editions where access is limited to the query section. Functionally, the applications will work on the web in the same way as other applications.

Future business procedures
The new applications should be thought of as alternatives to the current way of working with or launching queries on orders.

3.2 SQL handling of retrieved texts

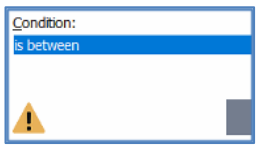
3.2.1 Introduction

In release 6, we significantly improved data searches with new filtering options.
In the case of filtering, it is crucial for the performance of larger data sets that data can be searched using SQL.
Many more fields are now SQL supported in release 7. In particular, this includes a whole series of retrieved texts that were not previously SQL supported. For example, product descriptions and customer names are now supported. This is a big step forward since they are a part of many applications. In addition, a large number of other retrieved texts are supported. For example, this includes all system parameter names, which are also displayed in many applications.

At the same time, SQL support also allows you to sort with very good response times.

As something new, you can also filter the columns with supplementary texts. These are also SQL supported and thus provide really good response times, even for large amounts of data.

As a user you can see if a field is SQL supported by the yellow triangle when you filter:



The yellow triangle means the field is not SQL supported. In release 7, the user will experience this much less than in release 6.

3.2.2 Solution design

This section describes in a more technical way how to retrieve data with SQL.

3.2.2.1 Retrieved texts

In many cases, the underlying ZxxxxH retrieval programs have been expanded with a feature for returning an SQL definition for how the texts can be retrieved.
When generating user spaces for the list images, these retrieval programs are called with the number '*sql' to check if they have SQL support. It is key in determining whether the field receives the yellow triangle. Retrieval programs that have not been affected by this extension will simply return a row of *.

When filtering such fields, the retrieval program is called again to provide the part of the SQL to be added to the total SQL. This means there may be several of these types of fields in the same filtering.

Since we have language-controlled fallthrough on these names, the SQL is quite complex. To this end, a general utility has been developed which the retrieval programs call to generate the SQL string.

3.2.2.2 Calculated fields

To the extent that calculated fields via a field control identifier consist only of an SQL statement, it could in principle be included in the SQL string and be server-side supported.

Field management identifiers have received a checkbox for whether or not they are SQL supported:

Field Control Id	II	Description (danish)	Status	List Data	Field Data	List Attr	Field Attr.	SQL enabled
GETKULK_GL		Hent oplysning fra kunde	30	U	J	J	J	
GETKULKNM		Hent oplysning fra kunde	30	U	J	J	J	
GETKULL		Hent oplysning fra leverandør	30	U	J	J	J	
GETMATD		Hent oplysning fra MATDREG	30	N	J	N	J	
GETPROL		Hent opl. fra prod.ordrelinie	30	N	J	N	J	
GETPROLRES		Hent PROLRESSNR prod.ordrelin.	30	U	J	J	J	
GETTMSO		Hent adr	30	N	N	N	N	
GETVAKLK		Hent felt fra spec. aft. (K)	30	U	J	J	J	
GETVARE		Hent oplysning fra vare (BDIS)	30	U	J	J	J	
GNAME-G1		Sætter graphname til G1	30	N	N	J	J	
GNAME-G1G2		Sætter graphname til G1+G2	30	N	N	J	J	

Fields with field control identifiers will therefore be SQL supported if the underlying field control identifiers are SQL supported.

A new result type *SQLSTMT has been implemented, which can be used to describe the SQL string that can be used to retrieve the data for filtering and sorting.

The *SQLSTMT calculation must be unconditional and without the use of variables, as variable use cannot be included in the SQL.

An example:

FIELD CONTROL IDENT	DESCRIPTION	INSTALLATION IDENTIFICATION
GETKULL	Obtain information from supplier	

Line	CalcSpec	Icon	Colour
10	*DATA := GET('KULE02REG',$FIELD,*LDALEVNR)		
20	*SQLSTMT := SQL('KULE02REG',$FIELD,'KULEKUNNUM=' + FIELDNAME('ALIAS','VENDORNO'))		

A new *SQLSTMT line is added that does not use variables. $FIELD is not a variable as it always contains the field name of the field to which the field control identifier is set. In addition, a new function, FIELDNAME(), was used. It returned the first field name of the given field definition containing a given attribute – in this case where ALIAS = VENDERNO. This function is not a variable, either, since it will have the same value on all rows in an image. The criteria are met.

In the new FIELDNAME() function, as a first parameter, you can specify 'FIELDID' instead of 'ALIAS' and thus retrieve the first field name with a given additional field identifier. The feature is typically used to make a field control identifier more general and applicable to different files.

As can be seen, you use *SQLSTMT to create the definition to retrieve data twice using two different methods. The difference is that GET() uses *LDALEVNR, which contains the current supplier number. It is of variable size as it is different from line to line. In *SQLSTMT, the reference to the field name is used instead, which is constant. It is an important difference. In *DATA you typically need the field value whereas in *SQLSTMT you typically need the field name.

Example:
```
*DATA := SQL('KULE01REG','KULENAVN3','KULEKUNNUM=' + ORDHKUNNUM)
```

Here you retrieve name line 3 from the customer number that is in ORDHKUNNUM. This results in a standalone SQL expression such as:
```
select KULENAVN3 from KULE01REG where KULEKUNNUM='004711'
```
on the line where the customer number is 004711

If you want it to be SQL supported, add:
```
*SQLSTMT := SQL('KULE01REG','KULENAVN3','KULEKUNNUM=ORDHKUNNUM')
```

This results in a subselect on ORDHTBL and therefore the field ORDHKUNNUM can be referenced. For example, if you filter the text 'ABC' in the field with customer name 3, the SQL statement that is executed will look something like:
```
select * from ORDHTBL where upper(select KULENAVN3 from KULE01REG where
KULEKUNNUM=ORDHKUNNUM) like '%ABC%'
```

The SQL expressions shown are somewhat simplified for the sake of clarity. Among other things, selection by group and company as well as overall selections from the current application level will be added.

GETKULL, along with two other standard GET* field control identifiers, is now SQL supported.

Field Control Id	Description (danish)
GETKULK	Hent oplysning fra kunde
GETKULL	Hent oplysning fra leverandør
GETVARE	Hent oplysning fra vare (BDIS)

These three are very general and widely used as they can retrieve arbitrary field values from customers, suppliers and goods in many different applications.

If you have field control identifiers to retrieve information from items, customers or suppliers, you should consider whether or not you can use GETKULK, GETKULL or GETVARE instead. Alternatively, you might be able to get help in making the field control identifier SQL supported by viewing the *SQLSTMT line in one of these.

Initially, XXXX fields will not be SQL supported. However, if you can create a field control identifier on one line with *SQLSTMT and an SQL() function that can find the same data, the field will be SQL supported.

The *SQLSTMT lines are not executed when retrieving data for the individual lines and thus do not affect performance here. They are used solely to generate the SQL statement for retrieving records by filtering and sorting.

Not all field control identifiers will be able to support SQL. If the constraint is having to write everything directly on one line without being able to use variables, resulting in a lack of space in the field, the solution might be to put the logic in an SQL Function or User Defined Function that is called instead.

Please contact an EG consultant to get help with SQL enabled field control identifiers.

3.2.2.3 Supplementary texts

Some new SQL functions have been developed for *SQLSTMT that are used on the field control identifiers for supplementary texts.

Examples of supplementary texts for basic items:

```
*SQLSTMT := SQL('SYSIBM.SYSDUMMY1','TEXTAGG_(UDFTEXTKF_9("","K", "V"), UDFTEXTKF_9("","F", "V"), "V", VARBNR, ' + &LANG + ')',")
```

Here, the expression would be very complex if it were written in full. The SQL function TEXTAGG_() returns the supplementary text for the item based on the specified parameters. UDFTEXTKF_9 is a user-defined function that returns the right group or business, respectively.

SYSIBM.SYSDUMMY1 is a system file that always contains one record. It is used here to secure one line, but all data is provided by TEXTAGG_().

SQL functions have been developed for the various files we have with supplementary texts. This means there is full SQL support for filtering supplementary texts in a well-marked performance-optimised way.

3.2.2.4 SQL index

The SQL engine uses the indexes contained in the database. If you often filter or sort given SQL supported fields, you may benefit from generating some additional SQL indexes.

This will be relevant if there are fields in large files that are widely used for filtering or sorting and for which there are no good existing indexes.

Help with this can be found in Index Advisor on the machine.
Please contact an EG consultant for help with generating extra indexes.

It should be emphasised that these indexes are not essential. Even without them, it will perform much better on the new SQL supported fields than before.

4 Minor features

4.1 Sales

4.1.1 Customer order number expanded to 30 Unicode characters

The customer order number has been extended to a 30 character Unicode field.

There have been problems with the field for the customer order number being too short and not being able to contain Unicode characters. This has caused communication problems with the customers when the customer order number is shortened or rewritten. The challenge has been particularly great when customers have processed the received documents electronically, since in some cases it has not been possible to make an automatic match between what we send as the customer order number and the internal order number of the customers' systems.

This means that future sorting will follow the usual rules for Unicode fields, i.e. that numbers come before letters. We recognise it from all other Unicode fields.

Other settings
There is a follow-up task due to the customer's longer order number. For many companies, this means that the document layout needs to be changed so that there is adequate space for the new customer's order number.

If DocManager is used as a layout program for external documents, then the documents must be tested/adapted in relation to the location and length of the customer's order number. It is the same with the supplier order number in existing purchase documents.

If InterForm is used as a layout program for external documents, then the layout for these must be changed in relation to the placement of field information around the customer order number. It is the same with the supplier order number in existing purchase documents.

The documents in question are the following:
- Proforma invoice (6230)
- Quotation (6231)
- Order confirmation (6232)
- Invoice (6235)
- Collective invoice (6236)
- Order (7232)
- Reminder (7233)

In relation to invoices and collective invoices, if there is reference to a purchase order with order policy IG, IS and CO, then reference information is printed in the body of the document.
In relation to the collective invoice, it is important that information about order numbers, customer order number, etc., is printed in the body of the document.

If InterForm is used as a layout program and there are individual adjustments or translations for report headings to the external documents, then the following elements must be reviewed via application 9168 "Report texts" and, if necessary, directed to:

- A6230B, A6231B, A6232B, A6233B, A6235B, A7232B and A7232B, nos. 14 and 15
- A6235B, nos. 892 and 893
- A6235B, nos. 2001 and 4001

Customers need to check and, if necessary, adapt their mappings regarding EDI sending and receiving. It is important to test ABC reception of the following document types:

- Orders (BESTIL)
- Supplier invoices (INVOIC)
- Purchase Orders (ORDERS)
- Purchase Order Confirmations (ORDRSP)
- Delivery schedule (LEVPLN)

If individual adjustments have been made to these field definitions for ABC dispatch, then it is important that they be reviewed and readjusted, if necessary. This applies to:

- A2OH EG416 BESTIL
- A2OH EG416 INVOIC
- A2OH EG416 ORDERS
- A2OH EG416 ORDRSP
- A2OL EG416 LEVPLN

A new field definition is provided for application 6438 "Delivery summary". If there are individual configurations for this application, then these need to be reset in order to upgrade to release 7.

If the customer order number or the supplier order number in workflow is used as a parameter, it must be checked/tested to verify that it still works correctly.

If the customer order number or the supplier order number is used in Queries/Query applications, it must be checked/tested to verify that it still works correctly.

In all locations where the customer order number or the supplier order number is displayed or used with the field control identifier, the field definition must be changed to new field type and field length.

Other settings

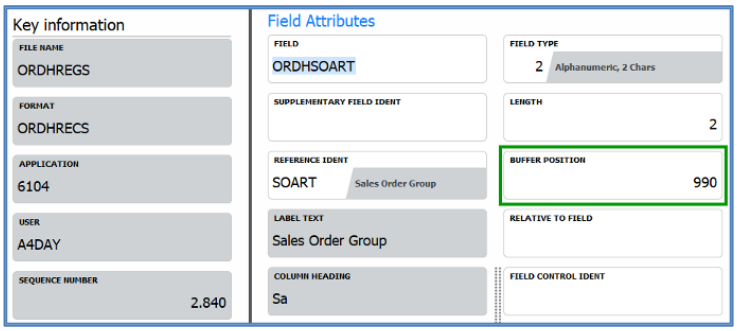
If new fields have been set up in STFE/STFO which uses direct buffer positions, this will be pushed after expansion of the customer order number.

To retrieve these fields, you can use the following SQL:

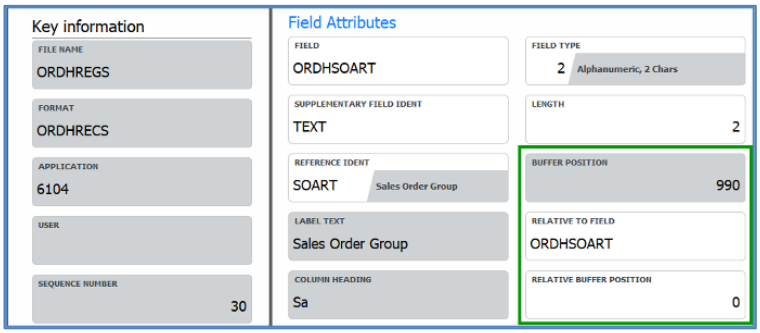
```
select *from stforeg where stfofil like 'ORDH%' and stfoattr like '%NEW(%'
```

Use direct positioning instead of relative positioning.

For example, the field can be defined beforehand as follows:



Instead, the field should be defined as follows:



The buffer position will then adjust automatically.

4.1.2 Deleted orders in appl. 6272 "Create summed-up order backlog"

In release 5, new tables were created for order backlog summaries. A table of modified order headers is maintained to manage this. This needs to be expanded to be able to deal with certain sales orders that have been deleted in the meantime rather than being closed.

This means that information no longer needs to be looked up on the original order. All necessary information for updating order backlog summaries by date (ORSUTBL) can be found in Order header changes (LOORTBL).

LOORTBL has been expanded with the following fields:

- Sum group 1 (LOORORSUG1)
- Sum group 2 (LOORORSUG2)
- Sum group 3 (LOORORSUG3)
- Cause code (LOORAARSAG)
- Delivery date (LOORLTERMI)
- Currency (LOORVALUTA)
- Exchange rate (LOORVAKURS)
- Sales order group (LOORSOART)
- Sales order group processing (LOORSOARTB)

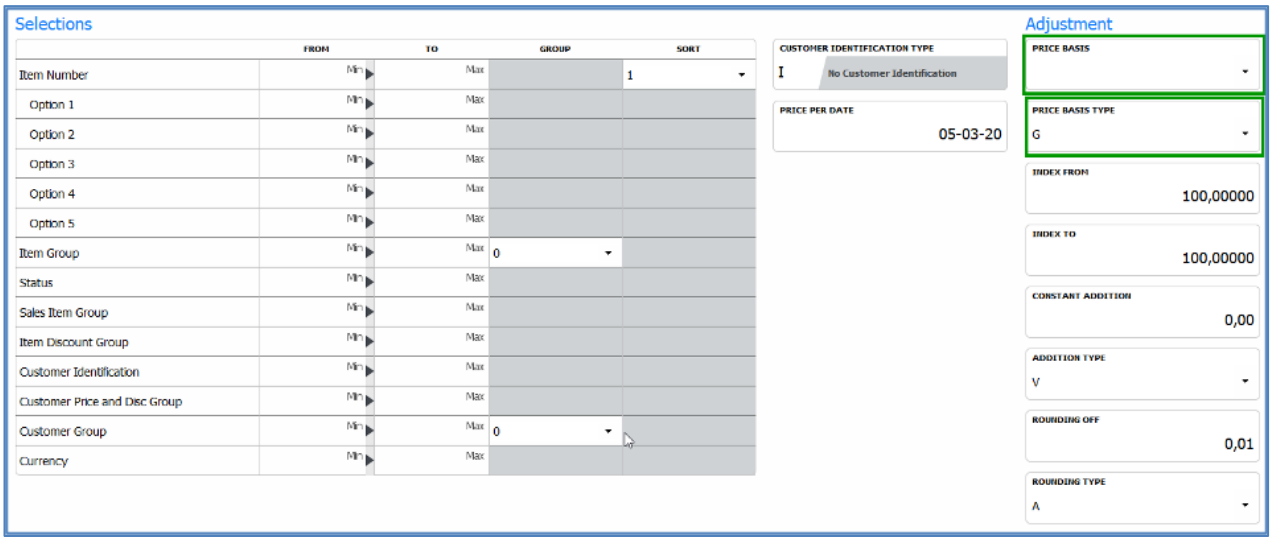
Conversion
A conversion program has been developed that can be executed to fill in the new fields.

The program runs when there is no activity in iSeries from a 5250 emulator session with the following command:

CALL KONVNYLOOR

4.1.3 New options for regulate sale prices

In application 6216 "Regulate sale prices" you can now generate sales prices based on cost prices.

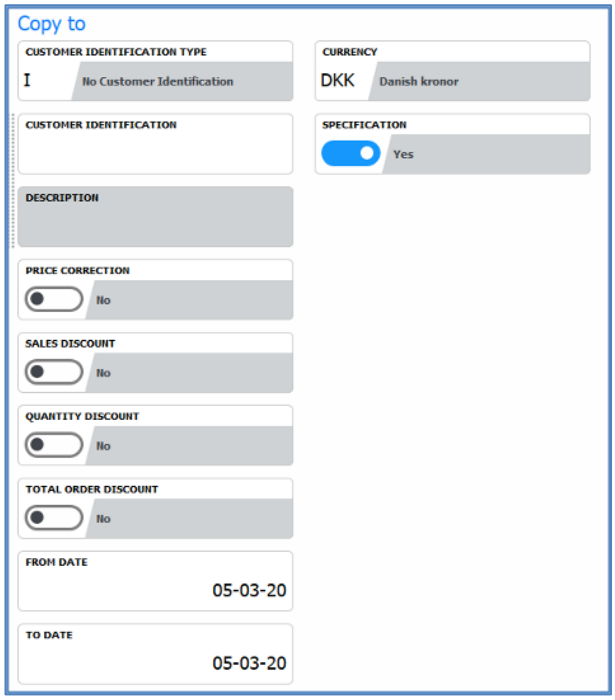


The price basis may contain:
- Blank – Existing price
- G – Basic selling price
- V - Cost price
- S – Simulation price

When selecting anything other than existing price (Blank), the price basis type can be specified
- G – Current prices
- N – New prices
- A – New/current price on date

In addition, you can now move prices from one level to another. This is relevant, for instance, if a customer or group of customers continues at "old" prices for a period.

New fields have been added for this purpose:



4.1.4 OIOUBL – validation of price/quantity

On 15 March 2019, the Danish Business Authority tightened up the validation of OIOUBL invoices and credit notes.
When sending invoices in OIOXML format, ensure that the contents of the PriceAmount/BaseQuantity field are correct.

The Danish Business Authority indicates the following:
*The validation is implemented as follows: Invoice line net amount MUST equal (Invoiced quantity * (Item net price/item price base quantity) + Invoice line charge amount - Invoice line allowance amount)*

EDI document creation has changed: Lines: INVOIC (EDCL table) as it will ensure that any simultaneous printout with OIO sending will have the same look.

Two situations must be dealt with when the EDI agreement is an EDITYPE = 3 (corresponding to an OIO-dispatch of the invoice).

- If the quantity on an order line is 0, the order line is sent with 1 in quantity. The same is sent in the quotation (1).
- If the quantity is different from 0, and the order line price list type is B (equal to amount), then the amount is sent as the price. At the same time, the quotation is set equal to the quantity. For example, if

you sell 17 items for a total of DKK 13.13 then 17 will be sent in quantity, 17 in quotation and 13.13 in both price and amount.

4.2 Stock

4.2.1 Stock history - change to documentation

Up until this release, when scheduled stock transactions were completed, the following fields were updated for Stock transactions – Lines (LATLTBL) with journal information:

- Order group (LATLORDART)
- Order number (LATLORDRE)
- Order type (LATLTYPE)
- Delivery sequence number (LATLLLQBNR)
- Line number (LATLOLINIE)

This information was subsequently transferred to corresponding fields in Stock history (LAHITBL) and Financial transactions – Lines (FITLTBL).

In the future, this will only happen if it is an order.

4.2.2 Default quantity with stock movements

The stock transfer app has so far proposed the transfer of the entire designated inventory. Henceforth, it will be possible to set the default with the whole quantity or 0.

Application 0128 "Appl. set-up" for application 9M55 "Transfer holding" has been expanded with:

Default quantity:

0: Default quantity = 0
1: Default quantity = Current inventory (as previously)

The program logic responds to "0", so that anything other than "0" remains as before. This is to ensure that existing usage is not disrupted.

4.2.3 9409/9419 "Status report" correct value statement

The companies using FIFO cost price have been challenged by the fact that application 9409 "Print status report" – and the new application 9419 "Status report" have not been able to present a properly anticipated stock impact of stocktaking before being updated. This has now been changed so that a properly anticipated stock impact can be presented before an instance of stocktaking is updated.

It should be emphasised that these changes only affect the companies using FIFO cost. Since the statement is based on the same methods used for other stock output, the validity of the printout will be greatest before any other transactions have been made in the warehouse (remember that using FIFO cost prices must record the transactions in the order in which they physically occur).

4.3 Purchases

4.3.1 Purchases for consignment warehouses – Intrastat changes

In release 6, a solution was created for handling consignment stock abroad.

This functionality has now been expanded to create an Intrastat in the case where purchases are made to warehouses located in one EU country (type 2 country) and the delivery is from another EU country (type 2 country or type 1 country). An Intrastat must then be created with the warehouse's country as the reporting country, and if a currency is given in the system parameter INTRASTAT – optimisation parameters (INTRASTAT) for this reporting country, then the Intrastat amount must be converted to the currency in question.

This currency conversion only works properly if you use daily rates, i.e. exchange rates are not specified in the system parameter Currency rates - "Customs rates" (VALUTAEF). In most countries it will be a legal requirement to use daily rates.

4.3.2 Updating the supplier item number in the database

The supplier item number and supplier language texts for an item are displayed in order registration images and transferred to the order line. A similar functionality was implemented for sales orders some years ago. The reason for the change is to ensure good response times in connection with filtering/searches of the supplier item number and/or item text and for possible use in queries.

This means a changed procedure in case the customer changes their item number + description. Earlier, the procedure was that orders in progress had to be found through "our" item number. Old supplier item numbers then had to be entered on the order lines where they were still the correct ones.

The current procedure is to continue to search for existing pending orders. Those to be delivered, etc., with the old item number are left unchanged. Those to be delivered with a new number are verified to ensure they can document the new number + descriptions.

Conversion
The conversion program KONV_CUJD must be executed just once.

This is done from a 5250 emulator session with the following command:

CALL KONV_CUJD

This will update all purchase order lines (including completed ones).

4.3.3 Country of origin in Intrastat

There are a number of countries that require the country of origin to appear in the Intrastat report. To meet this requirement, all transactions collected for INTRASTAT now have a country of origin attached. This provides you with an option of generating an extract for reporting that contains the country of origin.

The actual reporting of INTRASTAT in ASPECT4 has not changed.

You can register the country of origin partly on the order lines and partly on item and invoice receipts from the suppliers.

By default, the purchase order lines have a valid value in the country of origin. On the purchase order lines, the system parameter Module 4 – Purchasing Management (MODUL-4) must specify whether the country of origin default is from the side of the supplier or the item.

By default, the sales order lines have a valid value in the country of origin. In sales order lines, the country of origin is defaulted from the item. The sales order lines that are directly related to a purchase will inherit the country of origin from the purchase order (this applies to the following order policies IS, IG and IO). Of course, this also applies to intercompany orders.

You can register the country of origin on the purchase order lines as well as in connection with the receipt of purchase order items and invoices. (However, see recommendation under future business procedures).

The information serving as the basis for EDI transfers and document transfers from DocManager has also been added to the country of origin field, so that it can be included in a customer solution, if necessary.

In application 9184 "INTRASTAT", country of origin has been added.

Controlling parameters
A default country of origin field has been added to system parameter Module 4 – Purchasing Management (MODUL-4).
L: The supplier country is the default.
V: The item's country of origin is the default.

Conversion
The conversion program KONV_CUJD must be executed just once.

This is done from a 5250 emulator session with the following command:

CALL KONV_CUJQ

With regard to the conversion, a query list is displayed first with possibly invalid Module 4 - Purchasing management (MODUL-4) system parameters across companies. These should be corrected before continuing with conversion.
Furthermore, the program is designed to stop and notify the system operator if we encounter a Module 4 - Purchasing management (MODUL-4) system parameter which is not maintained in relation to the new field.

After changing the Module 4 - Purchasing management (MODUL-4) system parameter, the program can simply be restarted.
It is designed so that it only updates order lines where the country of origin is not filled in.

Other settings
Under the supplementary action ORDLI of the REDIS action group in application 9189 "Onward processing", these lines must be created to automatically update the country of origin on the sales order line by changing the country of origin on the purchase order line for order policy IO/IS/IG:

```
5 S 15 9 ZTRGOLAND &QSUHREG

20 B 10 IF &QSUHEVENT = ER
20 B 20 AND &1.ORDLOLAND <> &2.ORDLOLAND
20 S 10 9 ZTRGOLAND &QSUHREG
```

Line 5 should appear as supplementary action type 9 in the line after calling from ZDANREDI.
In line 20, all three should appear as the last lines of the supplementary action.
In connection with the commencement of operations, check that a set-up has been made in ABI in relation to the Purchase order lines (ORDLTBLI) table.

Future business procedures
We recommended pre-registering the items' country of origin on the purchase order lines if they differ from the items' normal country of origin.

Sales implications: If the country of origin is changed for an item, then it will no longer be reflected in all subsequent outbound documents. When upgrading to release 7, you need to consider which open sales order lines should be changed to new countries of origin and which ones should retain the country with which the order line was created.

4.4 Production and service

4.4.1 Price management on the service agreement payment plan

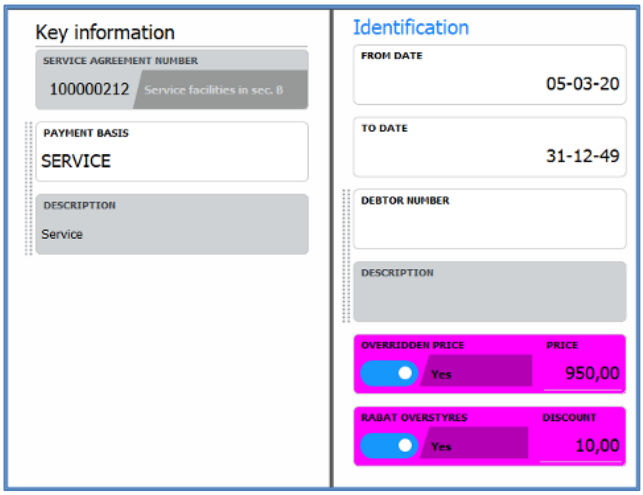
From release 7 you can manage price and discount directly on a service agreement payment schedule.

This makes it possible to manage future payments more specifically, especially when there are several pieces of equipment on the service agreement.
As before, the payment schedule's item number appears as the service the customer is paying for.

You can price manage a specific service agreement with a specific price and discount. Companies will thus be able to establish major service agreements across multiple pieces of equipment and be able to manage payment schedules for these.

This enhances the ability to manage prices of service agreements that have ongoing payments (payments are asynchronous to service provision).

It is now possible to override the payment plan's price and discounts. This means that these prices and discounts will be used when calculating invoice bases and making order backlogs on service orders.
Just as with special agreements, there is a yes/no code for whether the overriding price and discount option is used.
Since the solution is similar to the one for special agreements, there will be no standard functionality for price ajustment.
If the new form of price management is used for the payment agreement, only the text from the payment schedule's item number will be used. Here you can have a general text, such as "Monthly payment", "Start-up payment", etc.



Just as with special agreements, it is assumed that the price is per sales unit per sales price quotation in the service contract customer's currency. If the paying customer is listed on the payment program, it is in the paying customer's currency.

The discount is represented as a percentage.

The new fields on the payment plan must be used when calculating the invoice basis for the service order using application 6202 "Create order transaction for service payment" and application 6205 "Form forecasts for service payment".

The Service payment program (SERBTBL) table has been expanded with the following fields:
- Override price (SERBPRISOV)
- Overriding price (SERBPRICE)
- Override discount (SERBRABOV)
- Overriding discount (SERBRABAT)

The table S-order transactions - journal lines (TRSLTBL) has been expanded with the following fields:
- Discount (TRSLRABAT)
- Price discount code (TRSLPRABAT)
- Discount type (TRSLRABTYP)

4.4.2 Printout of service agreement

You need to be able to document a concluded service agreement or service agreement quotation to a contract partner (customer).

Therefore, a new application 6401 "Print service agreement" has been created.

Printing service agreements consists of the following:
- A service agreement header
  - Supplementary text to the service agreement header
- A line item describing which pieces of equipment the service agreement includes
  - Supplementary text to the line item
- A line item that describes the service basis
  - Supplementary text to the line item
- A line item that describes the payment plan
  - Supplemental text for this line item.

The service agreement header contains the following fields:
- Service agreement number (SERANR)
- Service agreement description
- Customer number (SERACULE)
- Customer name from KULETBL via SERAKULE
- Agreement status (SERASTATUS)
- Agreement status text from the system parameter Service agreement status (SERASTAT)
- Service agreement type (SERATYPE)
- Service agreement type text from the system parameter Service agreement type (SERATYPE)
- From date (SERAFRADT)
- To date (SERATILDT)
- Agreement date (SERAAFTDT)
- Agreement number (SERAAFTNR)
- Salesperson (SERAKUSALG)
- Salesperson's name from the system parameter Salesperson (SAELGER)
- Customer contact (SERAKUSAGB)
- Internal contact (SERAVOSAGB)
- Internal contact name (username of user)
- Print date
- Text fields 0-9 (SERATXT0 – 9)
- Date fields 0-9 (SERADATO0 – 9)
- Alfa fields 0-9 (SERAALFA0 – 9)
- Amount fields 0-9 (SERABELQB0 – 9)

- Quantity fields 0-9 (SERAMGD0 – 9)
- Parameter fields 0-9 (SERAPAR0 – 9)

Supplementary text to the service agreement header.
The text types that are marked on the system parameter Text types (TEKSTTYP) for printing on order confirmations are included.

Equipment that are covered by the service agreement.
- Equipment number (assets in status 90 is not included) (SEANANLG)
- Equipment (from the asset's master data)
- The equipment's item number (ANLGVARBNR)
- The equipment's item text
- Equipment's location if different from the customer's normal address (otherwise the fields are blank). NAVN1-5 finds data from the customer's delivery addresses
- Equipment type (ANLGTYPE)
- Equipment type text from system parameter equipment types (ANLGTYPE)

Supplementary text for the equipment.
The text types that are marked on the system parameter Text types (TEKSTTYP) for printing on order confirmations are included.

The service program of the agreement.
- Service basis (SEAPSERV)
- Text from service basis
- From date (SEAPFRADT)
- To date (SEAPTILDT) (the service program is not included if the to date is before the print date).
- Item number for service (SERVVARBNR)
- Item number text for service
- Service interval in time (SERVINTDG)
- Period specification (SERVPER)
- Text for period specification (value from system parameter planning period specification (PLANKALP))
- Recurring service (yes/no code) (SERVREPET)

Supplementary text to the service program – the text is a supplementary text to the service basis.
The text types that are marked on the system parameter Text types (TEKSTTYP) for printing on order confirmations are included.

Payment plan for the service agreement.
If there is no payment plan for the agreement, this element will not be printed, nor will the following supplementary text. Expired payment plans are not included.
- Payment basis (SEBGNR)
- Text from payment basis
- From date (SERBFRADT)
- To date (SERBTILDT)
- Item number from payment basis (SEBGVARBNR)

- Item text for the payment basis' item number
- Period specification (SEBGPER)
- Text for period specification (value from system parameter Planning period specification (PLANKALP))
- Recurring payment (yes/no) (SEBGREPET)
- Price (if price override is yes (SERBPRISOV), then the price from SERBPRIS - otherwise the price of the item at regular price quote for SEBGVARBNR to the customer)
- Discount (if discount override is yes (SERBRABOV) - then the price from SERBRABAT, otherwise the discount for the item at regular price quote for SEBGVARBNR to the customer)
- Currency – on printout

Please note that there is no amount field on the lines, nor a total at the bottom of the printout. This is because billing is usually recurring – and it does not make sense to print an amount/total for the entire service agreement period.

All texts are specified in the customer's language if it exists, otherwise 00 in language field.

Customer number
00001
Cox Packaging A/S
Banegårdspladsen 2
DK-8000 Aarhus C

Service adreement number 100000110
Agreement description Equipment Max Road 77

Agreement type text Extra lines for invoicing
Status 20 Send
Agreement Agreement number 1000000110
Agreement date 01.01.20

From date 01.04.20
To date 30.06.20

Print date 04.02.20
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Customer contact Søren Petersen
Internal contact Vivi Rasmussen
Salesperson KJH

Equipment Number	Equipment Description	Item Number	Item Description				Agreement Type	
IN-CUT1	Cutter 1	001009	Cutter 1				Internal equipment	
IN-GLUE-EX	Gluer						External equipment	
Service Basis		**Item Number**	**Item Description**				**From date**	**To date**
GRIND	Grinding of inserts	001109	Grinding				01.04.20	30.06.20
GLUE-CLEAN	Cleaning of glued parts	001209	Cleaning				01.04.20	30.06.20
Payment Basis		**Item Number**	**Item Description**	**Price**	**Discount**	**Currency**	**From date**	**To date**
GRIND	Grinding of inserts	001109	Grinding	235,00	7,75	DKK	01.04.20	30.06.20
GLUE-CLEAN	Cleaning of glued parts	001209	Cleaning	800,00	0,00	DKK	01.04.20	30.06.20

4.4.3 Service order backlog

A new application 6205 "Form forecast for service payment" has been created, which will generate forecast orders on the basis of service payments so that they can be included in order queries.

The start-up parameters are:
- From and to date for the period for which service order forecasts are generated.

When the application is run, all existing service order forecasts are deleted before the new ones are created.

Service order forecasts have order type 19, sales order category Service order forecasts (SP) and status 8.

In application 6108 "Sales order forecasts" the service order forecasts can be displayed with a filter on sales order category "SP".
However, it does not make sense to maintain them as the service order forecasts will be deleted during the next run.

Application 8211 "Breakdown sales plan"
In application 8211 "Breakdown sales plan", the new service order forecasts are not included.

Controlling parameters
A new system parameter Sales order group processing (SOARTBEH) has been created with the new Sales order category "SP" - Service order forecasts. This cannot be transferred to other order types – and can only be created in order type 19.

In the system parameter Sales Order Status (SOSTATUS), status 08 – forecast from service agreement – has been added.

Recommendations
Application 6205 "Create forecasts for service payment" should be run every time application 6202 "Create order transaction for service payment" is run.

4.5 Systemwide features

4.5.1 More reports for Virtual Output

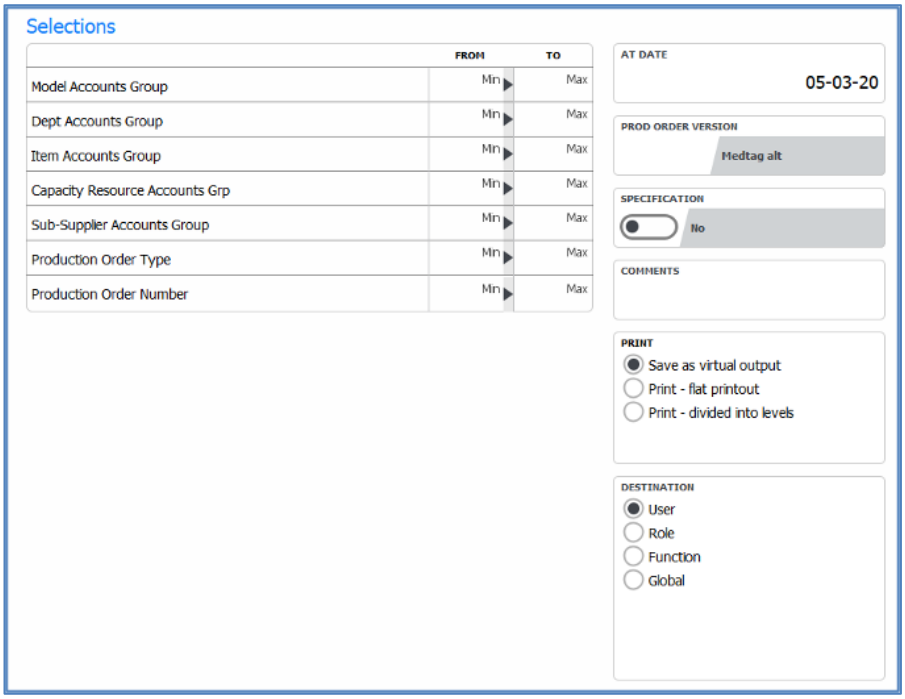
There have been many requests for converting more of the old reports to Virtual Output.

The three "most essential" applications were selected and have been converted.
Application 8442 "Work-in-progress" can replace application 8462 "Print work-in-progress".
Application 7447 "Outstanding item purchases history" can replace application 7487 "Print outstanding item purchase history".
Application 9419 "Status report" can replace application 9409 "Print status report".

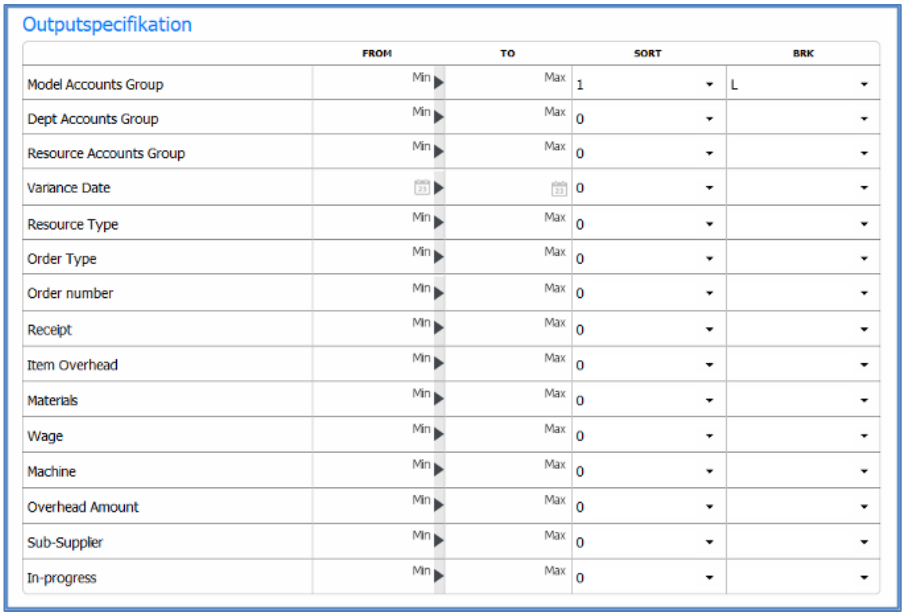
4.5.1.1 Application 8442 Work-in-progress

The new application 8442 "Work-in-progress" starts up in two parts.

The first part consists of the fact that the requisition contains a selection part with the same conditions that apply in application 8462 "Print work-in-progress".



The second part consists of an output definition where the report itself is defined. This is where it is decided the level of detail and sorting that the report should be submitted in.



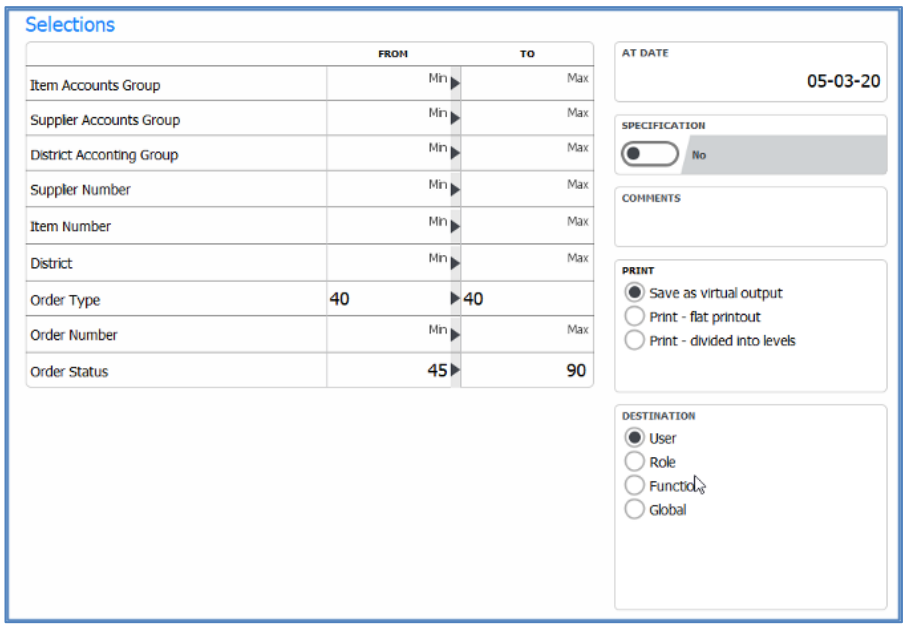
In addition, the Define print function (F8) can of course be used.

4.5.1.2 Application 7447 Outstanding item purchases history

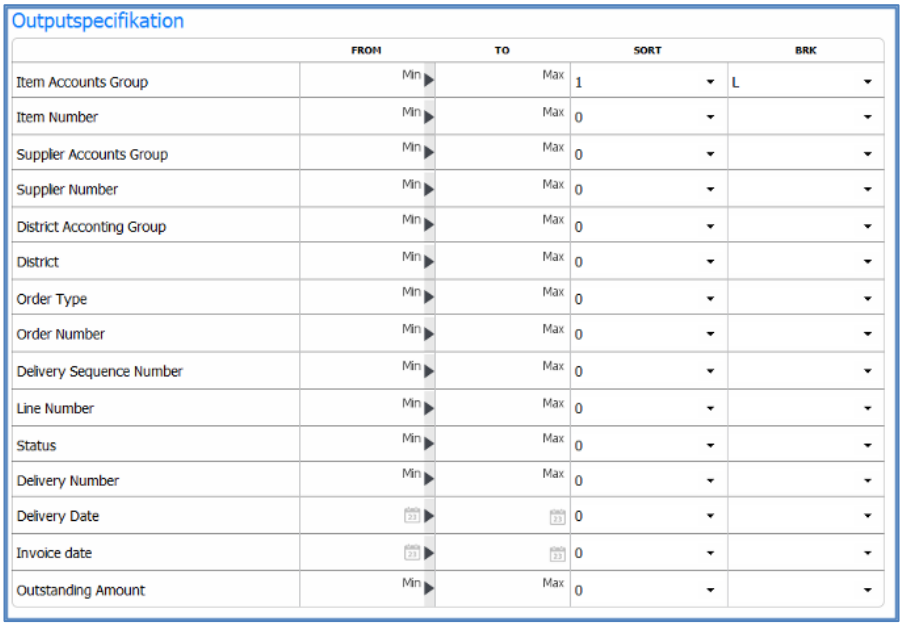
With the new application, better reporting facilities will be made available. The new report provides better options for delving further into the data as the result is saved at the lowest level of detail, i.e. each transaction for item and invoice receipts can be identified.

The new application 7447 "Outstanding item purchases history" starts up in two parts.

The first part consists of the fact that the requisition contains a selection part with the same conditions that apply in application 7487 "Print outstanding item purchases history".



The second part consists of an output definition where the report itself is defined. This is where it is decided the level of detail and sorting that the report should be submitted in.

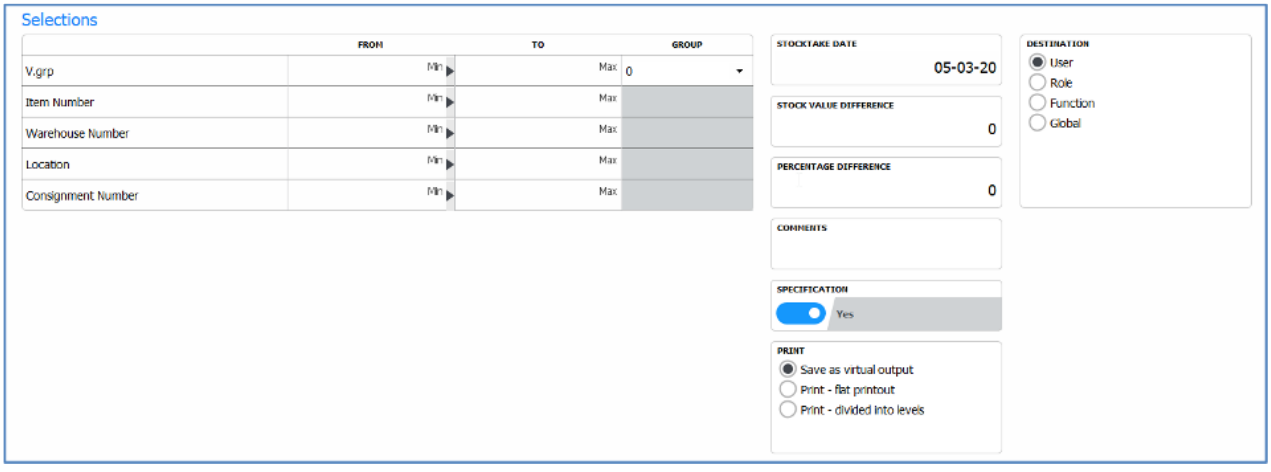


In addition, the Define print function (F8) can of course be used.

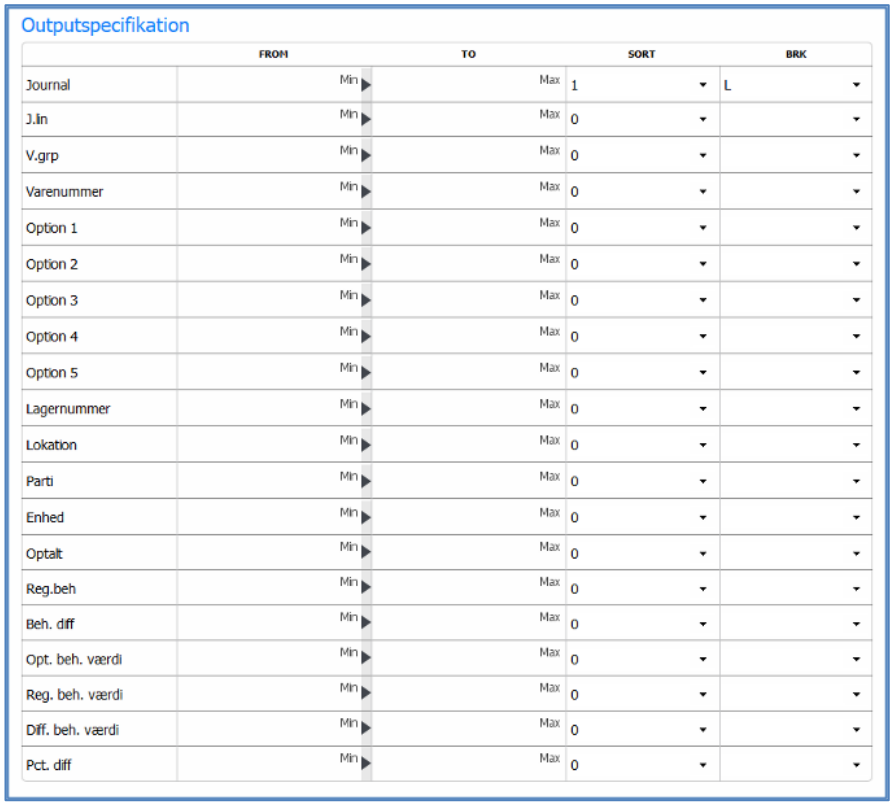
4.5.1.3 Application 9419 Status report

The new application 9419 "Status report" starts ups in two parts.

The first part is that the requisition contains a selection part with the same conditions that apply in application 9409 "Print status report".



The second part consists of an output definition where the report itself is defined. This is where it is decided the level of detail and sorting that the report should be submitted in.



In addition, the Define print function (F8) can of course be used.

4.5.2 Intuitive user interface

Over time, there have been a few areas where the user interface of ASPECT4 Logistics has not been completely intuitive. Since F12 is not possible in the web client, it was also inconvenient that it was a requirement for updates. That has now been changed in two areas.

One area is when you choose to transfer an order from one order type to another, you can now choose 

(Shift + F2) to update.

The second area is application 7165 "Item receipt" and application 7166 "Supplier invoice receipt". The update occurs when you quit the application. You can now select 

(Shift + F2) to update.

In both places, the original function keys can still be used in the primary client.

These new choices have exactly the same function as F12/Esc/F3 in releases up to and including release 6.

4.5.3 Change to default values on start-up screens

If you just enter something in the "from" field and leave the nine numbers in the "to" field, you now get the entered value and the rest from the "from" field. Previously, the entered value in the "from" field was implicitly copied to the "to" field if you did not enter anything here.

However, the "from" value is still copied to the "to" value if you leave the "to" value blank.

4.5.4 VAT basis for non-EU VAT

In a previous system change, entries were deleted regarding EU VAT, where items purchased in an EU country with delivery to another EU country were not supposed to pass through the country of the company in question. This change presents some challenges in relation to reconciliations.
Therefore, a correction has now been made to facilitate reconciliation tasks.

In the past, deliverables relating to EU VAT were entered via a pseudo account type Input VAT in EU countries(IE) and offset via a pseudo account type Calculated VAT on EU purchases(IG).

This has now been changed so that if an entry is made in which items do not arrive via their own country, it is made via Input VAT in EU countries(IE). The offset happens via the new pseudo account type VAT basis and not EU VAT(IS).

Thus, this pseudo account type, including mapping from the pseudo chart of accounts to the actual chart of accounts in ASPECT4 Finance VAT basis, not EU VAT(IS), must be created via application 9180 "Pseudo chart of accounts".

We recommend creating the new pseudo account with the same entry fields as in pseudo account type IE.
In terms of reconciliation, IE can be reconciled with purchases from EU countries.
The statement to the tax authorities will be the sum of amounts via account type IE+IS or IG.

4.5.5 Changing the default expiry date

Date now defaults to 31.12.2049 in various applications.

Conversion
A conversion program has been developed which can be executed to convert the to date, expiry date, etc., in various tables. Where the date 31.12.2029 appears, this is changed to 31.12.2049.

The program should be executed when there is no activity in iSeries from a 5250 emulator session with the following command:

CALL KONV_CUMN

The developed conversion program involves converting the tables and fields documented below. Only values from 20291231 to 20491231 are converted. If the described fields have other values, these are retained.

The column "New default" indicates how to set the default value for the field in future when creating new elements.

Table	Name	Field	Field identifier	New default
BONSTBL	Bonus agreements	BONSTILDT	To date	20491231
IBGRTBL	Purchase restrictions	IGBRSENMOD	Last date of receipt	20491231
LPKPTBL	Supplier prices, purchase corrections in percentage	LPKPTILDT	To date	20491231
LPKVTBL	Supplier prices, Purchase price corrections in currency	LPKVTILDT	To date	20491231
LPRITBL	Supplier prices	LPRITILDT	To date	20491231
LRBPTBL	Supplier prices, Purchase discounts as a percentage	LRBPTILDT	To date	20491231
LRBVTBL	Supplier prices, Purchase discounts in currency	LRBVTILDT	To date	20491231
MOMSTBL	VAT rates	MOMSTILDT	To date	20491231
PARTTBL	Consignment numbers	PARTUDLDT	Expiry date	Via rules from system parameter PARTIUDL
PARTTBL	Consignment numbers	PARTUDLEX	Expiry date, external	Via rules from system parameter PARTIUDL
PRMHTBL	Production model header	PRMHTILDT	To date	20491231
PRMKTBL	Production model, capacity resources	PRMKTILDT	To date	20491231
PRMLTBL	Production model, stock item resources	PRMLTILDT	To date	20491231
PROVTBL	Commission agreement	PROVTILDT	To date	20491231
ROAFTBL	Blanket order – agreements	ROAFTILDT	To date	20491231
ROAMTBL	Blanket orders - minimum inventories	ROAMTDAT	To date	From framework order agreement
SBGRTBL	Sales restrictions	SBGRSENLEV	Last delivery date	20491231
SEAPTBL	Service program per service agreement	SEAPTILDT	To date	20491231
SEBGTBL	Payment basis	SEBGTILDT	To date	20491231
SERATBL	Service agreements	SERATILDT	To date	20491231
SERBTBL	Service payment program	SERBTILDT	To date	20491231

SERPTBL	Service program per equipment	SERPTILDT	To date	20491231
SERVTBL	Service basis	SERVTILDT	To date	20491231
SPKPTBL	Sales prices, adjustment in percentage	SPKPTILDT	To date	20491231
SPKVTBL	Sales prices, adjustment in currency	SPKVTILDT	To date	20491231
SPRITBL	Sales prices	SPRITILDT	To date	20491231
SPKUTBL	Exchange rate adjustment of sales prices	SPKUTILDT	To date	20491231
SRBPTBL	Sales discounts in percentage	SRBPTILDT	To date	20491231
SRBVTBL	Sales discounts in currency	SRBVTILDT	To date	20491231
TRVLTBL	Price transactions – journal lines	TRVLGLDTIL	Valid to date	20491231
VALHTBL	Option lists header	VALHTILDT	To date	20491231
VALLTBL	Option item lists	VALLTILDT	To date	20491231
VALPTBL	Option process list	VALPTILDT	To date	20491231

Controlling parameters
In addition to running the conversion, the following system parameters must be reviewed manually and corrected, if necessary:

- Stocktaking Journal - stocktake type (LOPJTP)
- Module 2 - Order management (MODUL-2)
- Module 3 - Sales management (MODUL-3)
- Template (SKABELON)

Other settings
Templates are created with an expiration date. There may be templates for which this date should be corrected.

In application 9144 "Warehouses", an expiry date may appear. If this is set to 31.12.2029, you can consider whether to change it to 31.12.2049.

There may be saved settings and fixed values that may need correcting. This also has to be done manually. To help with this, the following two SQL statements can be used

```
SELECT * FROM DEFATBL
    WHERE DEFADFPARA  LIKE '%20291231%'
```

A list of saved parameters for maintenance applications will appear. It will be necessary to ask users to make corrections. There is no common maintenance application for this.

```
SELECT * FROM PARMTBL
```

```
WHERE PARMPARAM LIKE '%20291231%'
ORDER BY PARMBRUGER, PARMAPPL
```

These are several types of data that can be corrected advantageously by individual users.
This will appear in the Purpose column:

- OD – "to" values for batch applications
- FV – fixed values that users may have set up for maintenance applications

Corrections found in PARMTBL can be corrected in application 9070 "Application parameters" while corrections to DEFATBL must be implemented by asking individual users to make the corrections or completely delete these parameters with application 9287 "Delete start-up parameters and fixed values"

4.5.6 5250 application

As a result of ASPECT4 no longer supporting applications that run during 5250 emulator sessions, we have a few applications that still need to be run this way. It primarily involves applications that run on certain types of hand terminals.

It is controlled via the base number in application 0128 "Appl. set-up".
If you have individual applications, these will typically have one of these base numbers and no further additions will be needed.

ASPECT4 Logistics has these applications (the base can be found in application 0128 "Appl. set-up"), which have support.

Application	Base number
6153 "Dispatch journal"	6152
9045 "Warehouse jobs"	9196
9154 "Plan trans	9150
9155 "Move inventory"	9155
9156 "Stocktaking"	9142
9196 "Stocktaking jobs"	9196
9197 "Inventory"	9196
9191 "System reports"	

4.5.7 Ctrl+0

Shortcut Ctrl+0 (zero) is now a system-defined shortcut. Clicking on this shortcut resets font size, etc., back to normal size. We follow the Windows standard here.

So far, it has been used in specific situations in ASPECT4 Logistics. Since system-defined shortcuts must take precedence, support for using CTRL+0 has been removed.

There might be some entirely individual uses of the expired shortcut key.

We therefore recommend a review of system parameters and application dependent shortcuts (SHORTAPP), then search for the value 1136 in the shortcut column (previously CTRL+0) and thereafter change CTRL+0 to another shortcut combination.

Previously, the value appeared as a legal value under the system parameter application shortcuts (SHORTAPT) with no. 1136. When upgrading, this value is automatically removed.

4.5.8 Displaying documents

Until now, an application that uses the ZPCCMD program and a PC path designation, as well as some LDA positions, was necessary to create an application to display a document. For example, it can be a drawing in a PDF file located somewhere in the network.
It has its limitations and requires significant uniformity.

As an alternative, you can now create an application with 9500 as the base application and set the program name to ZURLLINK. A field control identifier serves as an application parameter.

It allows for a much more dynamic logic to create a link to the desired document. For example, the location could depend on a product category. You may also have to create a lookup in the product table to create the right link, for example.

The result of the field control identifier must be a URL and of the type *DATA, *LINK or *IMAGE. Keys will have to be read from LDA key values or Alias values to create the relevant lookup for data and to compile links.

When calling the application, the URL is executed.

Documents can also be placed externally. For example, it could be a link to the supplier's website with technical documentation for a purchased item. This would not be possible with the previous logic as the URL would have to be created from lookups in master data and vary from supplier to supplier.

4.5.9 Stability in fixed filters

In release 6, saved fixed filters could stop working if columns were added, removed, or switched in a list image.

This is because column numbers were used internally in the saved filters.

Column names are now internally converted to field names [fieldident] instead of column numbers. This means that saved filters still work, even if the columns change position in the field definition.

This also means that saved fixed filters need to be set up again when upgrading to release 7.
You can copy fixed filters between environments so that these can be put to the test and subsequently copied for operation.

4.5.10 Upgrading ASPECT4 Finance interface

The finance interface has been expanded so that ASPECT4 Finance can partly receive more field information for entries related to ledgers, debtors, creditors and equipment.
Some of these fields have been added due to regulatory requirements, but there may also be other reasons why additional fields may now be received.

These four format files and field definitions are:

File	Format	Field category
A9283WA3	OVFFREC0	Ledger fields
A9283WA4	OVFAREC0	Fixed asset fields
A9283WA5	OVFDREC0	Debtor fields
A9283WA6	OVFKREC0	Creditor fields

Transfers of ledger entries are made via application 9283 "Update finance", which for each ledger entry submits fixed format data to program ZXCSSND. This program receives data in this structure and maps it to be passed on to ASPECT4 Finance. The mapping is done with the help of field definition, where ASPECT4 Logistics data is described via field name in work file structure, while receipt for ASPECT4 Finance is via specified alias names of the field definitions.

The four format files are expanded/customised with the following:

Ledger entries:
A9283WA3, format OVFFREC0.

No.	Field	Alias	Field type	Legal values	Description
1	OVFFBTYPE	BILAGSTYPE	2A		Special annex type
2	OVFFPTYPE0	POSTTYPE0	1.0	0, 1, 2, 3	Entry type for informational VAT

1. Initiated with a blank
2. Can accept values 0, 1, 2, 3. When transferring the account type VAT reconciliation items purchase (JW), the value 3 must be transferred to this field, otherwise values remain as before.

Debtor entries:
A9283WA5, format OVFDREC0.

No.	Field	Alias	Field type	Legal values	Description
1	OVFDBTYPE	BILAGSTYPE	2A		Special annex type

1. Initiated with a blank

Creditor entries:
A9283WA6, format OVFKREC0.

No.	Field	Alias	Field type	Legal values	Description
1	OVFKBTYPE	BILAGSTYPE	2A		Special annex type

1. Initiated with a blank

Fixed asset entries:
A9283WA4, format OVFAREC0.

No.	Field	Alias	Field type	Legal values	Description
1	OVFABTYPE	BILAGSTYPE	2A		Special annex type

1. Initiated with a blank

4.5.11 Expansion of information on sales order transactions

S-order transactions – journal headers (TRSHTBL) have been expanded with the following fields:

- Contact person (TRSHKUPERS)
- Telephone number (TRSHKUTLF)
- Salesperson (TRSHKUSALG)
- Currency (TRSHKUVALU)
- Payment terms code (TRSHBETALK)
- Delivery note date (TRSHFQLDAT)
- To warehouse number (TRSHTLAGER)
- Delivery terms code (TRSHLEVBK)
- VAT number (TRSHMOMSNR)

The table S-order transactions - journal lines (TRSLTBL) has been expanded with the following fields:
- Discount (TRSLRABAT) *
- Price discount code (TRSLPRABAT) *
- Discount type (TRSLRABTYP) *

- Consignment (TRSLPARTI)
- Order policy (TRSLOPOLIT)
- Gross weight (TRSLBRTVGT)
- Net Weight (TRSLNETVGT)
- Volume (TRSLRMFANG)
- Number of parcels (TRSLANTKOL)
- Number of pallets (TRSLANTPAL)
- Project number (TRSLPROJNR)
- Cause code (TRSLAARSAG)
- Location (TRSLLOKAT)
- To warehouse number (TRSHTLAGER)
- To location (TRSLTLOKAT)
- To consignment number (TRSLTPARTI)
- Supplier number (TRSLLEVDQR)
- Expected arrival date (TRSLFRKDAT)
- Expected time (TRSLFRKKL)
- Production model (TRSLMODNR)
- Production variant (TRSLMODVAR)
- Quantity 1 (TRSLMGD1)
- Quantity 2 (TRSLMGD2)
- Quantity 3 (TRSLMGD3)

No standard functionality has been developed for these fields, except for the *-marked fields, which are dealt with under "Payment plan on the service agreement payment plan".