

VOFM ROUTINES IN SALES & DISTRIBUTION

PART 1: COPYING REQUIREMENTS

PRODUCT REQUIREMENTS PLANNING

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1. Introduction

Transaction VOFM is a tool that was developed in R/3 to facilitate the definition of both SAP delivered as well as customer defined routines / rules used in the system during various business processes. VOFM routines are ABAP code written in Forms. VOFM provides the user with the benefit of choosing from one of the standard delivered R/3 routines or writing their own. VOFM is intended for the implementation team when configuring the system. It is not intended for the end user.

VOFM is divided up into four main areas. These include copying requirements, data transfer, requirements, and formulas. This paper will focus on copy requirements that were delivered by SAP to support the Sales & Distribution (SD) and Logistics Execution (LES) applications. Copying requirements are routines that check certain requirements as a precondition for the copying process. For example, a copy requirement can be used to define whether a quotation may be copied into a standard order, or if text items are transferred during the copying of a delivery into a billing document. Copy requirements are an easy way to implement company specific business rules into R/3 that dictate situations that should prevent subsequent document creation.

Section 2 defines how to create a new VOFM routine, in the event that the standard routines do not match the user needs. In the remaining sections, the SAP standard delivered VOFM routines related to Sales & Distribution and Logistics Execution are documented. Starting with Release 4.6A, this documentation is part of the standard product.

This paper assumes that the reader has a general understanding of the SD and LES modules in R/3.

2. Creating a New VOFM Copying Requirement

In each area of VOFM, SAP delivers routines using the name space from 1 to 599. SAP customers can create their own VOFM routines using the name space from 600 to 999. To create a new routine, follow these steps:

- 1. First check to see whether you can use one of the copy requirements delivered in the standard system.
- 2. Either overwrite an existing requirement or enter a new number on a new line from the customer name space 600 to 999. Also enter a short description of your copy requirement.
- 3. Program your copy requirement in the ABAP editor.
- 4. Activate the program.
- 5. Enter the application if you want to use the copy requirement in one particular application area. For example, you have defined a new copy requirement that is only relevant for deliveries.
- 6. Enter your new copy requirement in the appropriate area in customizing. For example, a new order copy requirement would be assigned to the copy rules for sales documents. As another example, a text copy requirement would be assigned to the access sequence for the text type.

New VOFM routines created at a customer site are not overwritten by a software upgrade.

3. Orders

Order copy requirements are used to define when copying from an order to a subsequent document is permitted. This is done via detailed copy routines that verify that the characteristics of the reference and target sales documents are consistent with the definitions of the preconditions that must be present prior to allowing copying.

When creating an order with reference to another document, the system reads the assigned copy requirement and verifies that all of the specified conditions are met prior to permitting the order from being created. If the requirement is not met, the user will be issued a message indicating the reason that the order could not be created.

These copy requirements are assigned to the copy rules for sales document type/item category/schedule line category in customizing.

When looking at the code for the standard delivered order copy requirements, or when writing your own, some standard work areas are used. For a list of these work areas refer to the actual code in the examples below.

The following is a description of the copy requirements delivered in the standard system related to orders.

ORDERS COPYING REQUIREMENT 1: HEADER-SAME CUSTOMER

In this requirement, the sold-to must be the same in the reference and the target documents, in order for copying to be permitted. In addition, the sales area must be identical. Additional checks are also performed and the user is issued messages based on the following attributes of the reference document in comparison to the target: completeness, reference percentage, currency, validity dates, and the payment plan.

Example:

If in your company, there are special products that can only be sold to special customers (I.e. Government), then it makes sense to forbid the copying of sales documents from one customer to another. If this is the case in your company, the accidental copying of documents from different customers can be prevented by implementing this copying requirement.

ORDERS COPYING REQUIREMENT 2: HEADER-DIFFERENT CUSTOMER

In this requirement, if the sold-to is different in the reference and the target documents, the user receives a warning message, but copying is still permitted. The sales area must be identical, however, in both documents in order for the requirement to be met. Additional checks are also performed and the user is issued messages based on the following attributes of the reference document in comparison to the target: completeness, reference percentage, currency, validity dates, and the payment plan.

Example:

In many companies, copying of documents is permitted from one customer's document to a document for a different customer. However, if there are special customer material numbers used by the reference document customer, it is advisable to issue a message to the user indicating that the customers in the documents are different so that the user can make the decision to abort the copy, or to manually make the adjustments to the document to reflect the differences. If this routine is assigned to the document type, these warning messages will be issued automatically when the customers are different.

ORDERS COPYING REQUIREMENT 21: BILLING HEADER

In this requirement, there must be a valid division in the billing header. In addition, the following fields must match exactly in the source and the target document: sold-to party, sales area, and currency. Additional checks are also performed against the payment plan type and the user is issued a warning message if the source and target plans are different.

Example:

In order to permit the creation of credit memo requests with reference to a billing document, certain checks must be performed to insure that the two documents are consistent. This requirement can be used to insure that these checks are performed.

ORDERS COPYING REQUIREMENT 301: ITEM REJECTION REASON

In this requirement, all lines that have a reason for rejection are not copied into the target document.

Example:

A sales order is created for a customer that will later be replicated for all of their branch offices. The customer chooses to reject some of the line items in the original order. These rejected items should not be copied to subsequent sales orders. Using this copy requirement, line items in the reference document with a reason for rejection will not be copied to a target document.

ORDERS COPYING REQUIREMENT 302: DO NOT COPY ITEM

Any item categories that have this requirement assigned will not be copied into the target document.

Example:

When using product selection, it is advisable that only the main item be allowed to be copied from document to document, and the sub-item should be re-determined in the target document based on the current availability situation. In order to implement this, the item category of the sub-item can have this copy routine assigned to it in order to prevent the copying of these items.

ORDERS COPYING REQUIREMENT 303: ALWAYS AN ITEM

If this requirement is assigned to an item category, it will always be copied into the target document.

Example:

Standard items in a document are normally eligible to be copied from document to document. In order to insure that this action is permitted, this copying requirement can be assigned to the standard item category copy rules.

ORDERS COPYING REQUIREMENT 304: REJECTION REASON ONLY

In this requirement, only those sales document line items that have a reason for rejection assigned should be copied into the target document.

If a customer reports that a quantity of their goods was received damaged in transit, a return can be created to record the quantity that was damaged. This line can be assigned a specific reason for rejection indicating that the goods were damaged in transit. Upon creation of the subsequent delivery free of charge with reference to the return document, only the line containing the reason for rejection should be copied into the new document.

ORDERS COPYING REQUIREMENT 501: SCHEDULED QTY > 0

In this requirement, only those schedule lines that have a requested quantity that is greater than zero should be copied into the target document.

Example:

When creating a document with reference to another, this requirement can be used to eliminate schedule lines without a confirmed quantity. This is useful if a requested delivery date was entered in the reference document that could not be met and several schedule lines were proposed in an effort to satisfy the customer requirements. In the target document, only the original requested quantity schedule line should be copied and the normal availability check should validate that the delivery date can be met.

ORDERS COPYING REQUIREMENT 502: DO NOT COPY SCHEDULE LINE

This requirement prevents any schedule lines that exist on the reference document from being copied into the target document.

Example:

This type of requirement is useful if you have a business scenario where you would like to be allowed to copy orders to subsequent deliveries free of charge, and you do not want to have the schedule lines copied from the reference document, but rather to be redetermined in the target document.

4. Deliveries

Delivery copy requirements are used to identify several different preconditions that must be met prior to allowing a delivery to be created. This is done via detailed copy requirements that verify that the characteristics of the reference sales document are consistent with the definitions of the copy requirement prior to allowing copying. If the requirement is not met, the user will be issued a message in the log indicating the reason that the delivery could not be created.

The delivery copy requirements are divided into several categories:

Sales Document: Identifies those copy requirements that validate data contained in reference sales documents prior to enabling the creation of a delivery. Requirements 1, 2, 3, 101 and 102 are of this type.

Combination:	Identifies those copy requirements that validate data from several reference documents to determine if the documents can be combined in the dame delivery. Requirements 51 and 151 are of this type.
Additional Items:	Identifies those copy requirements that validate whether the user can add additional items to an existing delivery. This relates to both manually adding a line and using the 'deliver order' functionality to bring in additional order related lines. Requirements 201 and 202 are of this type.

These copy requirements are assigned to the copy rules for the delivery document type/item category in customizing.

When looking at the code for the standard delivered delivery copy requirements, or when writing your own, some standard work areas are used. For a list of these work areas refer to the actual code in the examples below.

The following is a description of the copy requirements delivered in the standard system related to deliveries.

DELIVERIES COPYING REQUIREMENT 1: HEADER

This is the standard delivered copy requirement to verify that the preceding sales order header is valid for delivery. Specifically, the following attributes of the sales order are checked: credit block, user status and global delivery flag. If there are any blocks or the status check reveals an incompatible entry, copying is not permitted.

Example:

When using credit management, it is logical that a delivery should not be created for a credit blocked order until the credit manager has reviewed the situation and determined that the document can be released. In order to prevent a delivery from being created if it still contains a credit block, this requirement can be assigned to the delivery header copy routine for the sales order.

DELIVERIES COPYING REQUIREMENT 2: HEADER CORRECTION

This requirement has the same checks as the standard delivered copy requirement '01' that verifies that the preceding sales order header is valid for delivery. Additionally, this requirement checks that the preceding document is a rush order. The standard checks performed are: credit block check, user status check and global delivery flag check. If there are any blocks or the status check reveals an incompatible entry, copying is not permitted.

Example:

If your company allows the immediate pick-up of goods upon order placement, rush orders can be implemented to facilitate this process. In this process, deliveries are created automatically when the sales order is saved. In order to insure that the delivery is not created for credit blocked items, this requirement can be assigned to the appropriate rush order delivery type to have the standard checks performed.

DELIVERIES COPYING REQUIREMENT 3: HEADER CONTRACT

This requirement verifies that the preceding document is either an order or a contract, prior to permitting copying. Additionally, the following attributes of the reference document are checked: credit block, user status and global delivery flag. If there are any blocks or the status check reveals an incompatible entry, copying is not permitted.

Example:

If your company delivers services to your customers, these can be established in the R/3 system as service or maintenance contracts. This requirement can be assigned to the debit memo request for the contract to insure that the delivery is not created if there are any credit or user blocks present in the contract itself.

DELIVERIES COPYING REQUIREMENT 51: COMBINATION

This requirement determines if sales documents can be combined in one delivery document. Specifically, the following attributes of the sales document must be identical: delivery type, sales organization, full delivery rules, and billing type. If any of these entries are not identical, combination is not permitted.

Example:

When using collective processing to create deliveries, it is possible to combine multiple orders into one delivery document. In order to prevent incompatible orders from being combined together, this requirement can be assigned to the delivery copy routine to insure that only valid documents are combined.

DELIVERIES COPYING REQUIREMENT 101: ITEM

This requirement checks specific attributes of the reference sales document item prior to permitting the line to be copied. Specifically, the following attributes of the reference document items are checked: delivery relevance, incompletion status, delivery completeness, shipping point, batch, credit block, credit check, user status and export data. If there are any blocks, or the status check reveals an incompatible entry, copying of the affected line is not permitted.

Example:

All line items in a delivery note must share the same shipping point. In order to insure this, this requirement is assigned to the appropriate delivery item category copy rule.

DELIVERIES COPYING REQUIREMENT 102: ITEM W/O TRANSPORT

This requirement checks specific attributes of the reference sales document item for non-stockable items / text items prior to permitting the line to be copied. Specifically, the following attributes of the non-stockable items are checked: delivery relevance, incompletion status, and delivery completeness. If there are any blocks, or the status check reveals an incompatible entry, copying of the affected line is not permitted.

Example:

A sales order is created with material as well as text items. When creating a delivery that will contain the text items, different checks should be performed against the text item than those that are done for material (stockable) items. In order to have standard checks such as consistent shipping

points removed from the check for item text transfer, this requirement can be assigned to the item category copy rules for the non-stockable items (text) as an item copy requirement.

DELIVERIES COPYING REQUIREMENT 151: COMBINATION

This requirement checks whether additional items can be added manually to an existing delivery using the 'deliver order' functionality. If the addition of new items is permitted, the following fields must be consistent in the new items as compared with the existing delivery items: incoterms, payment guarantee procedure, financial document number, letter of credit data, and customer group. If there are any incompatible entries, copying is not permitted.

Example:

When changing an existing delivery, the 'deliver order' functionality can be used to bring in additional relevant order lines from the specified sales document. In order to insure that only items with consistent incoterms and other risk management identifiers are selected, this requirement can be assigned to the delivery item category.

DELIVERIES COPYING REQUIREMENT 201: CANNOT ADD ITEMS THAT DO NOT REFERENCE AN ORDER

This requirement is used to indicate that items which do not reference an order cannot be manually added to a delivery. No additional validation checks against the items are performed.

NOTE: This requirement is delivered as a sample and is not used in any standard copy scenarios.

Example:

If a delivery was created with reference to a sales order, company policy states that no additional items can be added to the delivery. In order to prevent users from manually adding items in a delivery, this requirement can be assigned to the appropriate delivery.

DELIVERIES COPYING REQUIREMENT 202: ITEM WITHOUT A REFERENCE TO AN ORDER

This requirement is used to indicate that items that do not reference a sales order can be manually added to a delivery if specific validation checks are passed. Specifically, if the delivery has already been goods issued and invoiced, no new items can be added.

NOTE: This requirement is delivered as a sample and is not used in any standard copy scenarios.

Example:

If a delivery was created with reference to a sales order, company policy states that additional items can be added to the delivery as long as the delivery has not yet been invoiced. This requirement can be assigned to the appropriate delivery copy rules to permit the addition of new items in the delivery document.

5. Billing Document

Billing document copy requirements are used to define when copying from preceding sales documents is permitted. This is done via detailed billing copy requirements that verify that the characteristics of the reference sales documents are consistent with the definitions of the copy requirement prior to allowing copying. If the requirement is not met, the user will be issued a message indicating the reason that the billing document could not be created.

These billing document copy requirements are divided into several categories:

Order:	Identifies those copy requirements that validate data contained in reference order documents prior to enabling the creation of a billing document. Requirements 1, 2, 7, 8, 12, 20, 21, 23, 26 and 28 are of this type.
Delivery:	Identifies those copy requirements that validate data contained in reference delivery documents prior to enabling the creation of a billing document. Requirements 3, 4, 9, 10, 11, 14, 15, 18, 19, and 24 are of this type.
Billing:	Identifies those copy requirements that validate data contained in reference billing documents prior to enabling the creation of a subsequent billing document. Requirements 5, 6, 16, 17, 27 and 29 are of this type.
EDI/External:	Identifies those copy requirements that validate data contained in an incoming EDI message prior to enabling the creation of a billing document. Requirements 13, 22 and 25 are of this type.

These copy requirements are assigned to the copy rules for the billing document type/item category in customizing.

When looking at the code for the standard delivered billing document copy requirements, or when writing your own, some standard work areas are used. For a list of these work areas refer to the actual code in the examples below.

The following is a description of the copy requirements delivered in the standard system related to billing documents.

BILLING DOCUMENT COPYING REQUIREMENT 1: HEADER/ORDER-RELATED

This requirement is used to validate the header of the order document prior to permitting the copy into the billing document. This requirement is used in situations where there is no delivery needed and only orders and billing documents are utilized. Additional checks are also performed based on the following attributes of the order header: billing block, billing status, pricing incompletion indicator, incompletion status of the billing header, incompletion status of the billing document, credit limit check and the user status. If there are any blocks present, or the status checks reveal an incompatible entry, copying is not permitted.

When a rental contract is established in the system, billing documents will be created with reference to this contract in order to invoice the customer for the rental fees. Due to the fact that there are no goods to be delivered, all invoicing will be created with reference to the rental contract itself. This copy routine can be used to insure that billing is not begun if there are billing blocks or special status' in the rental contract.

BILLING DOCUMENT COPYING REQUIREMENT 2: ITEM/ORDER-RELATED

This requirement is used to validate the items of the order document prior to permitting the copy into the billing document. This requirement is used in situations where there is no delivery needed and only orders and billing documents are utilized. Additional checks are also performed based on the following attributes of the order items: billing block, billing status, customer master billing block, user status and some special checks for specific document types. If there are any blocks present, or the status checks reveal an incompatible entry, copying of the affected line is not permitted.

Example:

When creating a credit memo billing document with reference to a credit memo request, no items should be copied until the request has been reviewed and any billing blocks have been removed. This process insures that there is a check and balance system in place that validates that the customer has a legitimate complaint that warrants a refund prior to the refund check being issued. In this scenario, this requirement can be assigned to the appropriate copy control item category for credit memo billing documents to prevent unapproved items from accidentally being invoiced and the values refunded to the customer.

BILLING DOCUMENT COPYING REQUIREMENT 3: HEADER/DELIVERY-RELATED

This requirement is used to validate the header of the delivery document prior to permitting the copy into the billing document. Additional checks are also performed based on the following attributes of the delivery document: delivery header billing block, billing status, goods movement status (completely processed), and the incompletion status of the billing document. If there are any blocks present, or the status checks reveal an incompatible entry, copying is not permitted.

Example:

In a standard goods delivery situation, billing documents are to be created with reference to the delivery document. However, there should be some standard validation checks prior to invoice creation that prevent a document from being created if there are header blocks on the reference document. It is in this situation where this requirement can be used to validate the delivery document prior to invoicing.

BILLING DOCUMENT COPYING REQUIREMENT 4: DELIVERY-RELATED ITEM

This requirement is used to validate the items of the delivery document prior to permitting the copy into the billing document. Additional checks are also performed based on the following attributes of the reference order and delivery items: billing block, billing status, pricing status, incompletion status, customer master billing block, user status and some special checks for specific document types. If there are any blocks present, or the status checks reveal an incompatible entry, copying of the affected line is not permitted.

In a standard goods delivery situation, billing document items are to be created with reference to the delivery items. However, there should be some standard validation checks prior to invoice creation that prevent a document item from being created if there are blocks on the reference document item. It is in this situation where this requirement can be used to validate the delivery document item prior to invoicing.

BILLING DOCUMENT COPYING REQUIREMENT 5: CANCELLATION HEADER

This requirement validates that a cancellation of a billing document can be performed based on the attributes of the document header. Specific checks are performed to insure that none of the following special processes are contained in the billing document: credit cards, down payments, BOM, or rebates. If any of these are present in the document, cancellation will not be permitted. Additionally, the document must have been posted to accounting, but if it contains a down payment, that cannot have been cleared in order to be able to be canceled.

NOTE: As of 3.0 this requirement can no longer be manipulated via configuration, as it is now hardcoded into the cancellation check procedure.

BILLING DOCUMENT COPYING REQUIREMENT 6: CANCELLATION ITEM

This requirement validates that a cancellation of a billing document item can be performed based on the attributes of the items. Specific checks are performed to insure the following: invoice has not already been canceled, currencies in the order and invoice are consistent and if the document contains a billing plan, there can be no correction dates. If any of these are not true, cancellation will not be permitted.

NOTE: As of 3.0 this requirement can no longer be manipulated via configuration, as it is now hardcoded into the cancellation check procedure.

BILLING DOCUMENT COPYING REQUIREMENT 7: HEADER/ORDER PRO FORMA

This requirement is used to validate the order header of the reference document prior to creating the pro-forma related invoice for customs. Additional checks are also performed based on the following attributes of the order header: billing block, pricing status and the incompletion status of the billing header. If there are any blocks present, or the status checks reveal an incompatible entry, copying is not permitted.

Example:

Order related pro-forma invoices can be created to supply customs declarations for non-deliverable items such as services. If a customer has ordered a service, this requirement can be assigned to the header to permit the creation of the pro-forma invoice.

BILLING DOCUMENT COPYING REQUIREMENT 8: ITEM/ORDER PRO FORMA

This requirement is used to validate the order item prior to creating the order based pro-forma invoice for customs. Additional checks are also performed based on the following attributes of the order item: rejection status, billing block, billing relevance, customer master billing block, and the billing status of the billing plan. If there are any blocks present, or the status checks reveal an incompatible entry, copying of the item is not permitted.

When a customer orders services in conjunction with a deliverable product, a single pro-forma invoice for customs declarations is needed. In order to permit the copying of the service item from the order into the pro-forma invoice, this requirement can be assigned to the appropriate pro-forma billing item category.

BILLING DOCUMENT COPYING REQUIREMENT 9: DELIVERY-RELATED PRO FORMA HEADER

This requirement is used to validate the delivery header of the reference document prior to creating the delivery related pro-forma invoice for customs. Additional checks are also performed to ensure that there are no billing blocks on the delivery header. If there is a block present, copying is not permitted.

Example:

When exporting goods, customs officials require that a pro-forma invoice be included with the shipment to identify what goods are being transported. In order to permit the creation of the delivery related pro-forma invoice, this requirement can be assigned to the appropriate billing header copy control for the delivery related pro-forma invoice.

BILLING DOCUMENT COPYING REQUIREMENT 10: DELIVERY-RELATED PRO FORMA ITEM

This requirement is used to validate the delivery items of the reference document prior to creating the items in the pro-forma invoice for customs. Additional checks are also performed based on the following attributes of the reference documents: order and delivery item billing blocks, billing relevance, incompletion status of the billing header, pricing status, customer master billing block and validation of the freight cost transfer. If there are any blocks present, or the status checks reveal an incompatible entry, copying is not permitted.

Example:

When exporting goods, customs officials require that a pro-forma invoice be included with the shipment to identify what goods are being transported. In order to permit the creation of the delivery related pro-form items, this requirement can be assigned to the appropriate billing item category copy control for the delivery related pro-forma billing document type.

BILLING DOCUMENT COPYING REQUIREMENT 11: HEADER DELIVERY-RELATED WITHOUT GOODS ISSUE

This requirement is used to be able to create a billing document based on deliveries that have not yet had the goods issue posted. This requirement is an alternate to the standard delivery requirement '3', which requires that goods issue be posted prior to invoicing. Additional checks are performed to insure that the delivery does not contain any billing blocks and that the billing status indicates that the document is relevant for billing.

NOTE: Due to the fact that the actual cost of the goods being shipped is determined at goods issue time, an invoice created prior to goods issue will only be able to contain the material cost.

If your customer would like to be able to receive their invoice with their shipment, you may need to create the invoice while picking and packing the item in order for the document to be placed inside the final package. You do not, however, actually post goods issue until the box leaves the facility, which may occur later. As a result, you need to be able to issue the invoice prior to the actual goods issue from inventory. This requirement can be used to allow you to generate the invoice early for inclusion in the package.

BILLING DOCUMENT COPYING REQUIREMENT 12: ORDER-RELATED THIRD PARTY ITEM

This requirement is used to verify that the vendor has actually delivered a third party order item prior to invoicing the customer. This is accomplished by verifying that there is an open quantity to be billed. This open quantity is filled automatically when the invoice verification is done from the vendor's invoice for delivery of the customer's goods. If the item does not have an open quantity to be billed, it will not be copied into the billing document. Additionally, the following standard checks are performed to insure that the document is relevant for billing: no order related or customer billing blocks and that the billing status is relevant for billing.

Example:

When using a third party vendor to source products for a customer's order, the invoice for the goods should not be issued until the vendor has actually delivered the goods to the customer. In order to insure that this is the case, an additional validation check is needed. This requirement contains this check and can be assigned to the relevant third party billing item category to insure that undelivered items are not billed prior to delivery.

BILLING DOCUMENT COPYING REQUIREMENT 13: EXTERNAL TRANSFER ITEM

This requirement is used to process items from an external system. Specifically, it validates that the external document item presented for billing has a quantity to be billed and that the assigned customer is not blocked for billing.

Example:

When using an external system for order processing and delivery creation, it is still possible to generate billing documents from R/3. Due to the fact that the R/3 system has no delivery or order to use as a reference document, a new copy requirement is needed to insure that the data being presented to the billing interface is in fact valid. This requirement can be used to insure that the data to be invoiced contains a valid quantity to be billed and that the corresponding customer is not blocked from billing.

BILLING DOCUMENT COPYING REQUIREMENT 14: HEADER DELIVERY-RELATED INTERCOMPANY BILLING

This requirement is used to validate that the intercompany billing status of the reference delivery document header is relevant for invoicing. Additional checks are also performed based on the following attributes of the delivery header: billing block and goods movement status (completely processed). If there are any blocks present, or the status checks reveal an incompatible entry, copying is not permitted.

If your company allows a sales order to be sourced from different company codes than the one assigned to the sales organization, an intercompany billing process must be established. Due to the special nature of this process, different validations need to be performed to insure that the delivery is relevant for intercompany billing. This requirement can be used to insure that the delivery header has the appropriate intercompany billing status prior to permitting invoicing.

BILLING DOCUMENT COPYING REQUIREMENT 15: ITEM DELIVERY-RELATED INTERCOMPANY BILLING

This requirement is used to validate that the intercompany billing status of the reference delivery document item is relevant for invoicing. Additional checks are also performed based on the following attributes of the reference document item: order and delivery item billing block, order header billing block, billing and pricing status, incompletion status, customer master billing block, and a validation of the freight cost element data transfer. If there are any blocks present or the status checks reveal an incompatible entry, copying is not permitted.

Example:

If your company allows a sales order to be sourced from different company codes than the one assigned to the sales organization, an intercompany billing process must be established. Due to the special nature of this process, different validations need to be performed to insure that the delivery items are relevant for intercompany billing. This requirement can be used to insure that the delivery items have the appropriate intercompany billing status prior to permitting invoicing.

BILLING DOCUMENT COPYING REQUIREMENT 16: INVOICE LIST

This requirement is used when processing invoice and credit memo lists for billing documents. Invoice and credit memo lists are used to create a list of billing documents to be sent to a payer. Additional checks are also performed based on the following attributes of the reference document: billing status, incompletion status of the billing header, pricing status, and the accounting status. If there are any blocks present or the status checks reveal an incompatible entry, creation of the invoice or credit list is not permitted.

Example:

If a group of customers have a consolidated payer who is the head office of a buying group, it is desirable to issue only one list of all the invoices or credits for goods that are shipped to individual members. The group payer then takes responsibility for paying the invoice/credit memo lists and then collecting payment from the individual members. These credit and invoice lists are used by the group payer in order to obtain a complete picture of the open liabilities of the individual customers. In return for these services, the group payer usually earns a factoring or del credere discount.

In order to permit the creation of the collective invoice or credit memo list, this requirement is assigned to the corresponding invoice or credit memo list billing document type.

BILLING DOCUMENT COPYING REQUIREMENT 17: CANCEL INVOICE LIST

This requirement is used when canceling an invoice or credit memo list billing document. An invoice or credit memo list is used to create a consolidated list of invoices or credit memos from multiple customers that is then sent to a group payer. When one of these lists is created in error, a reversal cancellation list document must be created in order to correct the errors. An additional

check is also performed to validate the billing status of the reference documents. If the status check reveals an incompatible entry, copying is not permitted.

Example:

If a group of customers have a consolidated payer who is the head office of a buying group, it is desirable to issue only one list of all the invoices and credit memos issued to the individual members. If one of these lists is accidentally created in error, there must be a facility to permit the reversal of these lists in order to correct the error and re-bill the consolidated payer. This requirement is assigned to the cancellation invoice/credit memo list document type in order to insure that the correct validation checks are performed prior to allowing cancellation.

BILLING DOCUMENT COPYING REQUIREMENT 18: DELIVERY-RELATED ITEM WITHOUT ORDER-RELATED BILLING

This requirement is used to support intercompany stock transfers. In this scenario, the ordering company orders goods from a plant which is assigned to another company code. In order to support this intercompany scenario, the following additional checks are also done: billing block for delivery item, intercompany billing status, customer master billing block and a special check for freight cost transfer. If there are any blocks present or the status checks reveal an incompatible entry, copying is not permitted.

Example:

When processing an intercompany stock transfer, a purchasing organization, which is assigned to the ordering company code, creates a purchase order requesting goods from a plant assigned to another company code. The plant in the delivering company code delivers the goods to the plant for which the purchasing organization ordered the goods. Because the two companies balance their accounts independently, the delivering company must bill the ordering company for the goods. This internal billing transaction is carried out by means of an intercompany billing document. The delivering company at a price that allows the delivering company to cover its costs. In order to permit the creation of the intercompany billing document for the intercompany stock transfer, this requirement is assigned to the corresponding intercompany billing document copy control.

BILLING DOCUMENT COPYING REQUIREMENT 19: DELIVERY-RELATED ITEM WITHOUT ORDER-RELATED BILLING

This requirement is used to support the billing of deliveries that were created without reference to a sales order. Additional checks are also performed based on the following attributes of the reference delivery document: billing block for delivery item, billing status, customer master billing block and a special check for freight cost transfer. If there are any blocks present or the status checks reveal an incompatible entry, copying is not permitted.

Example:

You can create deliveries without referring to an order when order processing is carried out on another system. In the external system, order processing is handled, and then data is passed to R/3 in order to support delivery, goods issue, and billing. During invoicing, then, special checks need to be in place to insure that no reference to a sales order is needed. These checks are carried out in this copy requirement.

BILLING DOCUMENT COPYING REQUIREMENT 20: DOWN PAYMENT REQUIRED ITEM

This requirement checks to make sure that the billing line is a downpayment item from the corresponding billing plan. This is used to create the downpayment request invoice. Additional checks are also performed based on the following attributes of the reference document: billing block for the billing plan, billing status, billing status of the billing plan line item, and the customer master billing block. If there are any blocks present, or the status checks reveal an incompatible entry, copying is not permitted.

Example:

In certain industries, down payment agreements are often made for producing and delivering high valued items such as an airplane. In order to implement this functionality, a down payment agreement is saved as a deadline in the billing plan. This down payment then needs to be sent to billing in order to invoice the customer for the down payment amount. This requirement is assigned to the down payment item category to insure that only this billing plan line is copied into the billing document for

the down payment request.

BILLING DOCUMENT COPYING REQUIREMENT 21: ITEM ORDER-REFERENCE WITH DOWN PAYMENT

This requirement is used for order reference to documents containing a downpayment.

NOTE: This requirement has been replaced in 4.0 with requirement '23'.

BILLING DOCUMENT COPYING REQUIREMENT 22: EXTERNAL ITEM

This requirement is used to process items from an external system. Specifically, it validates that the external document item presented for billing has a quantity to be billed and issues an error message if not. In addition, it validates that the assigned customer is not blocked for billing.

Example:

When testing the interface to an external system for order processing and delivery creation it is advisable to validate that there is a quantity being passed on all of the lines being sent, prior to generating billing documents in R/3. This requirement can be used to insure that the data to be invoiced contains a valid quantity to be billed and that the corresponding customer is not blocked from billing.

BILLING DOCUMENT COPYING REQUIREMENT 23: ITEM ORDER REFERENCE WITHOUT DOWN PAYMENT

This requirement is used to control the down payment copying from the billing plan. Additional checks are performed against the non-down payment lines, including: order and billing plan billing block, billing status, and billing block in the customer master.

NOTE: This copy requirement is used for down payment clearing from 4.0A onwards. It replaces copy requirement '21' for the down payment workaround before 4.0A.

When utilizing the down payment functionality, it is necessary to implement specific checks to insure that the down payment lines and the actual billing lines are processed separately. This is accomplished by assigning this requirement to the down payment billing item category.

BILLING DOCUMENT COPYING REQUIREMENT 24: ITEM DELIVERY-RELATED SELFBILLING

This requirement is used to insure that billing is only initiated externally from an EDI IDOC, and is not generated on-line. Additional checks are also performed based on the following attributes of the reference documents: billing block for delivery and order items, order header billing block, billing status, pricing status, incompletion status, customer master billing block and a special checks for third party invoices, cross company and freight cost transfer. If there are any blocks present, or the status checks reveal an incompatible entry, copying is not permitted.

Example:

In the component supplier industry in automotive, it is a common practice that the supplier cannot create an invoice manually for goods that will be delivered to a customer. The invoice needs to be generated automatically based on data received via EDI from the customer. When this requirement is assigned to the external billing item category, billing will only be permitted when initiated from the EDI interface.

BILLING DOCUMENT COPYING REQUIREMENT 25: ITEM CREDIT MEMO SELF-BILLING

This requirement is used to insure that credit memo billing is only initiated from and EDI IDOC, and is not generated on-line.

Example:

In the component supplier industry in automotive, it is a common practice that the supplier cannot create an invoice manually for goods that will be delivered to a customer. The invoice needs to be generated automatically based on data received via EDI from the customer. This process is also valid for credit memos to correct errors in invoicing. All credit memos must also be initiated directly from an external EDI message from the customer. When this requirement is assigned to the external billing credit memo item category, billing will only be permitted when initiated externally via EDI.

BILLING DOCUMENT COPYING REQUIREMENT 26: ARG.: RECIBO FACTURA

This requirement is used to support the Recibo Factura for Argentina.

NOTE: Due to regulation changes in Argentina, this requirement is no longer used.

BILLING DOCUMENT COPYING REQUIREMENT 27: ITEM BILLING TO BILLING

This requirement enables the creation of billing documents with reference to another billing document. In order to insure that this process is permitted by the corresponding reference documents the CO status of the order header and item are checked to ensure that they permit reference.

When a customer reports an error in their invoice due to an incorrect price, it is possible to create a credit memo billing document with direct reference to the faulty invoice. In order to enable this functionality, this requirement must be assigned to the corresponding billing item category.

BILLING DOCUMENT COPYING REQUIREMENT 28: BILLING RELEVANCE FOR THIRD PARTY

This requirement is used to insure that a when a credit memo is issued for a third party order, cost is not reduced. Additional checks are also performed based on the following attributes of the reference documents: billing block, billing status, and the customer master billing block. If there are any blocks or the status checks reveal an incompatible entry, copying of the affected line is not permitted.

Example:

When processing credit memos, the invoice cost value is normally reduced to affect the value of the credit memo. In the case of third party orders, however, these credits do not necessarily affect the cost that was paid to source and supply the item to the customer from the third party vendor. If the credit to the customer is not to affect the cost of the invoice, this requirement should be assigned to the corresponding credit billing item to insure that the invoice cost is not reduced.

BILLING DOCUMENT COPYING REQUIREMENT 29: CANCELLING AN INVOICE THAT HAS BEEN CLEARED IN ACCOUNTING

This requirement checks if a billing document has been paid in AR prior to permitting cancellation.

Example:

If an error has been made in invoicing, it is possible to create a cancellation invoice and then re-bill the customer for the correct amount. This process, however, should not be allowed if the invoice has already been forwarded to the customer and payment has been received and applied. This requirement can be assigned to the billing document to insure that no paid invoices are allowed to be canceled.

6. Texts

Text copy requirements are used to define when texts should be automatically transferred from document to document. If these routines are assigned to the appropriate text determination access sequences, and texts exist in the reference document, they will be transferred to the target. If these copy routines are not assigned, no texts will be transferred.

When looking at the code for the standard delivered text copy requirements, or when writing your own, three standard work areas are used. These include:

FTVCOM - Communications block FXTHEAD - Text header FXVBPA - Partner

The following is a description of the copy requirements delivered in the standard system related to texts.

TEXT COPYING REQUIREMENT 1: REFERENCE DOCUMENT HEADER

This requirement checks if the reference document header has a text entry. If so, it is automatically transferred.

Example:

If a specific text, such as sold-to specific instructions is to be transferred from a sales order to a delivery document, this requirement can be used to perform this function. This requirement is assigned in the detail of the access sequence for header text determination.

TEXT COPYING REQUIREMENT 50: REFERENCE DOCUMENT ITEM

This requirement checks if the reference document item has a text entry. If so, it is automatically transferred.

Example:

If in the sales order, the customer provides detailed delivery instructions per line item, this text can be copied into the delivery line item automatically by using this requirement. This requirement is assigned in the detail screen of the access sequence for item text determination.