Purchase Invoice Matching to Goods Receipts (DA0533)

Further Information

Click below to view your selection of in-depth information for this project:

Powerpoint walkthrough.

Benefits Statement

The '3 Way Match' facility allows for the matching of a purchase order, receipt and invoice, within user defined tolerances and the automatic authorisation of the invoice. User entry of delivery, invoice quantity, invoice line value and price tolerances on each line of a Purchase Order enables the system to check the flow during the receiving and invoicing stages. Default values can be set up by Product Group, if desired. These can then warn of a violation or pass the process automatically to the next stage. Data from the Supplier Contracts facility is fully compatible with these new features.

Legal, Fiscal and any Standards Considerations

There are no Legal and Fiscal, or any standards considerations for this project.

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Overview

The enhancements introduced by DA0533-Purchase Invoice Matching to Goods Receipts enable the quantity of goods invoiced to be matched against the quantity of goods received, taking into account the delivery tolerance for that order line. These enhancements can be summarised through each stage of the Purchase Order cycle:

- Purchase Orders
- Purchase Receipts
- Purchase Order Invoices
- Posting Invoices

Purchase Orders

You can now define the following tolerances against each purchase order line:

- Receipt quantity tolerance
- Invoice quantity tolerance
- Invoice price tolerance
- Invoice line value tolerance

These tolerances can either be represented as a percentage of the expected amount or as a specific limit. Separate higher and lower tolerance limits can be set. Default tolerances can be defined, either within new fields stored on the Stock table, the Product Group table or via new system keys. These defaults can be overwritten on the purchase order line. When the goods are received, order lines are considered fully received if the quantity received is within the receipt quantity tolerance specified for the line. Tolerances relevant to each line can be printed on the Purchase Order.

> **Note**   If Supplier Contracts (project **DA0534**) are used, the tolerance limits are copied from the contract for a call-off order.

You can optionally reinstate completed order lines to allow further receipts and invoices to be added (currently not available for order lines created from requisitions). In addition, order lines at **Received** status can be set to **Completed** to prevent the lines being amended, or further receipts or invoices added against the order line.

> **Note**   If project **DA0403-Purchase Order Variance Analysis** is installed and you reinstate a completed order line to allow further receipts and invoices to be added, there is no associated General Ledger posting to remove the accrual for Goods received not invoiced.

A contracted exchange rate can be specified on the purchase order, rather than assuming the current rate. If supplier contracts are in use, this rate is copied from the contract for a call-off order. The contracted exchange rate can be printed on the Purchase Order.

Purchase Receipts

If a receipt quantity tolerance has been defined, the 'More to come' flag is automatically set to **n** if the receipt quantity falls within the tolerance limits of the order quantity. Also, a warning that the quantity received is greater than the quantity ordered will only appear when the receipt quantity is greater than the upper tolerance limit for the quantity ordered.

If project [DA0262-POP Accruals Enhancements](#) is also installed, line by line receipts allows you to enter a delivery note quantity in the same unit as the receipt quantity (you can then record the quantity from the supplier's delivery note, as this can differ from what is actually measured on receipt). This quantity can be printed on the Goods Received Note and the Receipts Audit Trail.

If project **DA0403-Purchase Order Variance Analysis** is also installed, a browse is available for supplier returns to show a list of receipts relevant to that order line. These receipts are stored on the Purchase Variance History table. The variance history record generated for the supplier return (accessible via Report Writer) stores the exchange rate from the originating receipt, thereby allowing accurate reversal of the purchase exchange rate variance.

Purchase Order Invoices

You can no longer duplicate 'Our Reference' numbers – this functionality is not constrained to this project.

A browse has been added to the invoice header information that enables you to view all purchase orders at 'Printed' status for the selected supplier.

For invoices with a quantity greater than the quantity received and not yet invoiced, you can now choose to continue entering the invoice, display a warning or prevent further entry of that invoice. This is controlled by the new system key POINVTOLV. This also applies when entering the invoice line value.

When an invoice line is matched with a receipt for a greater quantity a warning is displayed. System key POMISMATCH controls this behaviour. When it is set to 'WARN', when you leave the matching form, the warning is displayed if the invoice quantity is more than the matched quantity (or if a credit note quantity is less than the matched quantity) with a second message asking if you want to go back to the matching form to correct the quantities. When POMISMATCH is set to 'FORBID', matching of more than the invoice/credit note quantity will be forbidden so, when you leave the matching form and the invoice quantity is more than the matched quantity (or a credit note quantity less than the matched quantity) the warning will be displayed but you will be forced to stay in the matching form until the invoice quantity is less than or equal to the matched quantity. When this system key is blank or it does not exist, only the first warning will be displayed.

The purchase quantity variance calculation (introduced by project **DA0403-Purchase Order Variance Analysis**) has been enhanced to compare the invoice line quantity to the quantity from the matched receipts – it is no longer valid to use project **DA0403-Purchase Order Variance Analysis** without also using this project.

The quantity received but not invoiced is calculated from the purchase order lines and is now displayed in the Extra Details form. Service items that do not require a goods receipt and invoice by value items, do not apply.

You can now browse purchase receipts relating to the current order line. You can select a number of receipt lines and amend the quantity matched from each receipt. In addition, you can unmatch receipt lines for corrections. The receipt details are stored on the Purchase Variance History table. Receipt lines matched to invoice lines are written to the Purchase Variance History table with the invoice line number and invoice quantity matched. For receipts that are partially matched to invoice lines, an additional line is added to the Purchase Variance History table with the remaining balance.

Posting Invoices

A new field – More to invoice – has been added to the invoice detail lines. If you set this field to **n**, upon posting the invoice the purchase order line is marked as complete. The field More to invoice is automatically set to **n** for each invoice line if the invoice is authorised automatically (system key POAUTOAUTH).

Automatic authorisation of invoices has been enhanced to only authorise those invoice lines that are matched to receipts that fall within the tolerance levels defined. For invoices that do not meet the tolerance levels and are not authorised automatically, an option is available to manually authorise them. For reference, the authorisation method (either manual or automatic) is recorded on the Purchase Variance History table.

During the switch over period when this project (**DA0533**) is initially switched on, Manual Authorisation will need to be used for Invoices that are not matched because the Receipt was carried out without the project. This only applies to order lines with 'GRN required' set.

When the invoices are posted, the purchase quantity variance is calculated by summing the receipt quantity from the variance history records matched to the invoice line.

Examples

The examples in this section are to be used in conjunction with the Powerpoint Walkthrough that accompanies this project.

- Order Tolerances
- Purchase Receipts
- Purchase Invoices

Order Tolerances

Tolerance values on the order line, contract, stock master, product group and the system keys are entered in the format:

[[+][%]<nnn.nn>] [-[%]<nnn.nn>]

The following examples apply:

Value	Tolerance limits for quantity of 50.000
0	50.000 or less
0 –0	50.000 only
5.15	55.150 or less
5.15 -4.95	55.150 to 45.050
+5.15 -4.95	55.150 to 45.050
-4.95	50.000 to 45.050
%10.55	55.275 or less
%10.55 -4.95	55.275 to 45.050
%10.55 -8.45	55.275 to 45.775
+%10.55 -%8.45	55.275 to 45.775
5.15 -%8.45	55.150 to 45.775
-%8.45	50.000 to 45.775

The following example demonstrates which default tolerance value is used:

Stock Item	Product Group	System Key	Default Value
+%5 -%10	+%5 -%5	%10	+%5 -%10
Blank	+%5 -%5	%10	+%5 -%5
Blank	Blank	%10	%10
Blank	Blank	Blank	Blank

Purchase Receipts

Purchase Receipts have been modified to allow both the quantity received and the delivery note quantity to be recorded.

When the total receipts against the purchase order line are within the delivery tolerance (defined when raising the purchase order) for the order line, the line is automatically closed. The tolerance will be applied to the total receipts and compared with the quantity ordered.

The following example demonstrates this:

Quantity ordered: 60

Delivery tolerance: +/- 10%

Receipts:

Quantity	Cumulative	Test	Result
20	20	20 < 54	No automatic closure of the order line.
20.5	40.5	40.5 < 54	No automatic closure of the order line.
20.1	60.6	54 < 60.6 < 66	Automatically close the order line.

Purchase Invoices

Purchase Invoices have been modified to allow the invoice line to be spread across the individual receipts and to automatically close the invoice under a particular set of selection criteria.

The following examples take an invoice line that is assumed to match and is marked as authorised for payment with an option to amend or suspend:

Ordered quantity: 100

Unit price: £2.00

Invoice quantity tolerance: +/- 10%

Expected invoice total: £200.00

Invoice unit price tolerance: +/-5% (allowable range is 1.90 - 2.10)

The overall system-wide tolerance per invoice/order (POINVTOLO): **20.00**

Example 1

Actual received quantity: 105 (as measured)

Actual invoice: £218.00

Invoiced quantity: 100

(Invoice unit price   £2.18)

Max. acceptable Invoice unit price (£2.00 + 5%):   £2.10

Invoice is **not** automatically authorised (invoice unit price is greater than the tolerance permitted).

Example 2

Actual received quantity:	95 (as measured)
Actual invoice:	£200.00
Invoiced quantity:	100
(Invoice unit price	£2.00)
Max. acceptable Invoice unit price (£2.00 + 5%):	£2.10
Max. acceptable Invoice quantity (95 + 10%):	104.5
Max. acceptable value for order ((95 x £2.00) + £20):	£200.00

Invoice is automatically authorised (invoice quantity within the tolerance permitted, invoice value for the order within the tolerance permitted).

Example 3

Actual received quantity:	105 (as measured)
Actual invoice:	£231.00
Invoiced quantity:	110
(Invoice unit price	£2.10)
Max. acceptable Invoice unit price (£2.00 + 5%):	£2.10
Max. acceptable Invoice quantity (105 + 10%):	115.5

Invoice is **not** automatically authorised (invoice unit price within tolerance permitted (adverse variance), invoice quantity within tolerance permitted (adverse variance) – both adverse variances). See also project **DA0403-Purchase Order Variance Analysis**.

Example 4

Actual received quantity:	100 (as measured)
Actual invoice:	£218.90
Invoiced quantity:	110
(Invoice unit price	£1.99)
Max. acceptable Invoice unit price (£2.00 + 5%):	£2.10
Max. acceptable Invoice quantity (100 + 10%):	110
Max. acceptable value for order ((100 x £2.00) + £20):	£220.00

Invoice is automatically authorised (invoice unit price within tolerance (favourable variance), invoice quantity within tolerance (adverse variance), invoice value for order within tolerance).

Technical Data

You must read the Implementation section before attempting to install this project

This section details important information relating to the installation of this project. If you require any further assistance please contact Customer Support.

The following technical data is available for this project:

- Implementation - Existing Sites And/Or Existing Data
- Implementation - New Line 500/Sage 1000 Installations With New Data
- System Keys
- Data Dictionary Changes
- Forms
- Fields

Technical Data

Implementation - Existing Sites And/Or Existing Data

Licensing

- Project **DA0533** (POP Invoice Matching to Receipts) must be licensed for it to become available.

System Keys

The system keys listed in the <u>System Keys</u> section need to be set up as described.

Data Dictionary Changes

The additional data required for this project is stored in new tables which are detailed in <u>Data Dictionary Changes</u>.

The tables can be created by running the *Create New Project Files* application and specifying a project code of **DA0533**.

Options

Not applicable.

Forms

See <u>Forms</u>.

Fields

See <u>Fields</u>.

Conversions

If project **DA0403-Purchase Order Variance Analysis** is already in use, a data conversion of the Purchase Variance History (pop_variance_hist) table is required.

The data conversion is performed by unloading the existing data prior to upgrading the Data Dictionary. If running in a database environment, it is also necessary to drop the table via the Database Manager. The data can then be re-loaded – it will be converted automatically.

Records in the pop_variance_hist table are used to perform the invoice matching. Therefore any orders that are receipted (and the order lines have 'GRN required' set) but not invoiced at the time of starting to use this project cannot be automatically authorised. This can be worked around by either invoicing all receipted orders before turning on this project or for a short period using the Manual Authorisation option in invoicing to authorise any unmatched invoices.

Some features of this project require the installation of project <u>DA0262-POP Accruals Enhancements</u>. This requires a conversion of the Purchase Receipt table (pop_receipt). Conversion of the table pop_receipt to a new data table (pop_receipt2) is performed by running the option Purchase Receipts Conversion from the Applications Conversions menu (apps_conv).

Alternatively, if the upgrade is performed at period end, no conversion is required as the relevant data is cleared down by the Purchase Order Processing Period-End routine. Instead, create a new empty data table by running the *Create New Project Files* application.

Definition of Terms

Term	Description
Quantity Ordered	Quantity on the purchase order line.
Quantity Delivered	Gross quantity delivered.
Quantity Received	Net quantity recorded on the goods receipt transaction(s), excluding rejects identified before booking into stock.
Quantity Invoiced	Quantity on the supplier's invoice(s).
Delivery Tolerance	Allowable difference between the quantity specified on a purchase order line and the quantity actually received.
Invoice Unit Price Tolerance	Allowable difference between the purchase order line, the unit price and the invoice unit price.
Invoice Quantity Tolerance	Allowable difference between the invoice quantity and the purchase order quantity.
Invoice Line Value Tolerance	Allowable difference between the value of the invoice line and the value of the purchase order line.
Invoice Order Value Tolerance	Allowable difference between the value of the invoice for an order and the value of the order.

Implementation - New Line 500/Sage 1000 Installations With New Data

Licensing

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System Keys

The system keys listed in the System Keys section need to be set up as described.

Options

Not applicable.

Suspended Fields

Not applicable.

Definition of Terms

Term	Description
Quantity Ordered	Quantity on the purchase order line.
Quantity Delivered	Gross quantity delivered.
Quantity Received	Net quantity recorded on the goods receipt transaction(s), excluding rejects identified before booking into stock.
Quantity Invoiced	Quantity on the supplier's invoice(s).
Delivery Tolerance	Allowable difference between the quantity specified on a purchase order line and the quantity actually received.
Invoice Unit Price Tolerance	Allowable difference between the purchase order line, the unit price and the invoice unit price.
Invoice Quantity Tolerance	Allowable difference between the invoice quantity and the purchase order quantity.
Invoice Line Value Tolerance	Allowable difference between the value of the invoice line and the value of the purchase order line.
Invoice Order Value Tolerance	Allowable difference between the value of the invoice for an order and the value of the order.

System Keys

	Description	Value	Used by
PORECTOLQ	Default receipt quantity tolerance.	Blank or +0 -0 for no tolerance limits. Otherwise in the format of: [+][%]<nnn.nn> [–[%]nnn.nn>]	Purchase Orders Purchase Receipts
POINVTOLL	Default invoice line tolerance.	Format extended – now the same as the existing system key PORECTOLQ.	Note: System key already exists – the usage has changed.
POINVTOLO	Default invoice order value tolerance.	Format extended – now the same as the existing system key PORECTOLQ.	Note: System key already exists – the usage has changed.
POINVTOLP	Default invoice price tolerance.	Format same as PORECTOLQ	Purchase Orders Purchase Invoices
POINVTOLQ	Default invoice quantity tolerance.	Format same as PORECTOLQ	Purchase Orders Purchase Invoices
POINVTOLV	Validation level for invoicing outside of tolerances.	NONE – No validation WARN – Warning issued FORBID – Unable to authorise	Purchase Invoices
POMISMATCH		WARN - When matching more than the invoice/credit quantity, on leaving the matching form a warning will be displayed. FORBID - Matching more than the invoice/ credit quantity will be forbidden; you are forced to stay in the matching form until the matched quantity is not more than the invoice/credit quantity blank - No warning when matching when matching more than the invoice/credit quantity,	Purchase Invoices
POPERCFUL	Minimum percentage receipt quantity fulfilment.		Note: This system key has been replaced by the system key PORECTOLQ.
POPLANTYPE	Currency type that stores the planned exchange rate.	Two-character currency type code (as defined in the General Configuration Currency table).	Purchase Orders

Data Dictionary Changes

- [Inventory Control](#)
- [Purchase Order Processing](#)

Inventory Control

Stock Item Master Extension (st_stockx_pg)

Column	Type	Array	Key	Reference	Values	Notes
warehouse	char (2)		1			
product	char (20)		1			
analysis_d	char (10)					
analysis_e	char (10)					
analysis_f	char (10)					
delivery_qty_tol	char (30)					
call_off_qty_tol	char (30)					DA0534
consumer_unit	char (10)					DA0658

Stock Product Group Extension (st_product_grp_tol)

Column	Type	Array	Key	Reference	Values	Notes
product_group	char (10)					
delivery_qty_tol	char (30)					
call_off_qty_tol	char (30)					DA0534

Purchase Order Processing

Purchase Variance History (pop_variance_hist)

Column	Type	Array	Key	Reference	Values	Notes
order_no	char (10)		1			
order_line_no	char (4)		1			
sequence_no	char (4)		1			
history_type	char (3)				ORD, REC or INV	
history_date	date					
supplier	char (8)					
warehouse	char (2)					
product	char (20)					
unit_code	char (10)					Transaction unit
dp_unit	char (1)					
currency	char (3)					
operator	char (1)				* or /	
dp_currency	char (1)					
std_cost_local	double					Standard cost
plan_rate	double					
order_price	double					
order_rate	double					or Contracted rate
delivery_qty	double					
delivery_qty_tol	double					
receipt_no	char (6)					
receipt_seq_no	char (6)					DA0262
receipt_qty	double					In transaction unit
receipt_rate	double					
grni_accrued	double					System
ppv_accrued	double					System
pev_accrued	double					System
accruals_reversed	char (1)					System
invoice	char (10)					
invoice_seq_no	char (4)					
invoice_qty	double					Also qty matched for REC type
invoice_price	double					Foreign currency
invoice_rate	double					
ppv_realised	double					System
pev_realised	double					System

pqv_realised	double					System
auth_method	char (1)				A or M or blank	Automatic of Manual invoice authorisation. Applies to INV type only

Purchase Order Detail (pop_order_det_pg)

Column	Type	Array	Key	Reference	Values	Notes
order_no	char (10)		1			
order_line_no	char (4)		1			
delivery_qty_tol	char (30)					
invoice_price_tol	char (30)					
invoice_qty_tol	char (30)					
invoice_value_tol	char (30)					

Purchase Invoice Detail (pop_invoice_det_mi)

Column	Type	Array	Key	Reference	Values	Notes
supplier	char (8)		1			
invoice	char (10)		1			
sequence_number	char (4)		1			
more_to_invoice	char (1)				y or n	

Purchase Receipt (pop_receipt2_dnq)

Column	Type	Array	Key	Reference	Values	Notes
receipt_no	char (6)		1			
sequence_no	char (6)		1			
delivery_note_qty	double					

Forms

The following forms have been added with unsuspended fields:

Module	Application	Form
po	po_entry	contract_rate
		line_status
		tolerances
	po_receipt_matching	adjust_match
		match_total
	purchase_receipts	pop_receipt_dnq

It is recommended that the 'GRN required' field on the order line is changed to have an initial value of 'Y'.

Module	Application	Form	Field
po	po_entry	line_details	grn_req
		line_details_pr	grn_req

Fields

The following fields have been added – these are NOT suspended:

Module	Application	Form	Subform	Field
po	po_invoice_entry	extra_info		rec_not_invoiced
				rec_not_invoiced_msg
		invoice_details		more_to_invoice
		po_details		more_to_invoice
		sys_form	auto_auth	batch_no
				create_invoice_no
				create_supplier_no
				date
				time
				user
			manual_auth	batch_no
				create_invoice_no
				create_supplier_no
				date
				time
				user
	po_printing	print_form		exch_rate
		print_form_2		delivery_qty_tol
				invoice_price_tol
				invoice_quantity_tol
				inv_line_val_tol
	po_receipts_audit	print_form		delivery_note_qty
	purchase_receipts	print_grn		delivery_note_qty
				dnq_head_one
				dnq_head_two
st	st_history_enq	brief_stock_enquiry		delivery_qty_tol
	st_prod_gp_maint	main		delivery_qty_tol
				delivery_qty_tol_msg
		print_form		delivery_qty_tol
				delivery_qty_tol_msg
	st_stock_file_rep	print_form_1		delivery_qty_tol
				delivery_qty_tol_p
	st_stock_maint	main		delivery_qty_tol
		main_2		delivery_qty_tol