PECOS P2P
Version 18.0

Workflow Criteria Guide
Release September 2022

Company Confidential

Document Owner: Product Management
Document Version: 4.9

Contents

1 Introduction

This document is intended as a guide for PECOS P2P system administrators to facilitate the creation of Approval Plans and contains a detailed explanation of approval plan criteria with examples of how some of the criteria may be used.

For a detailed explanation of how plans are created, used and assigned please refer to the 'The Approval Process' section of the PECOS P2P Administration Manual.

1.1 About Elcom

Elcom Systems is a trading company of Elcom International Inc., a leading global provider of remotely-hosted automated procurement and electronic marketplace systems with over twenty years experience in electronic commerce. Elcom offers the most cost-effective remotely-hosted eProcurement solution available today and with clients in the US and UK, provides purchasing solutions for the world's largest public sector eProcurement contract. For more information please contact http://www.elcom.com.

1.2 About PECOS

PECOS is a fully hosted 'cloud' solution that enables buying organisations of all sizes to automate their purchasing processes and leverage the benefits of eProcurement.

PECOS is not installed directly within your organisation but resides in a remote data centre: as a PECOS user, the system is simply available from anywhere within your organisation from any desktop running a standard a web browser as well as from iPad, iPhone, Blackberry or Android.

PECOS P2P is an easy to use and convenient application for ordering all maintenance, repair, and operations (MRO) items, goods and services your organisation needs to run its day-to-day business. PECOS P2P provides a full-circle P2P solution: from ordering via electronic catalogues, through approval routing, to delivery and financial settlement. A wealth of information is captured and reported to support purchasing professionals for more effective management of strategic suppliers.

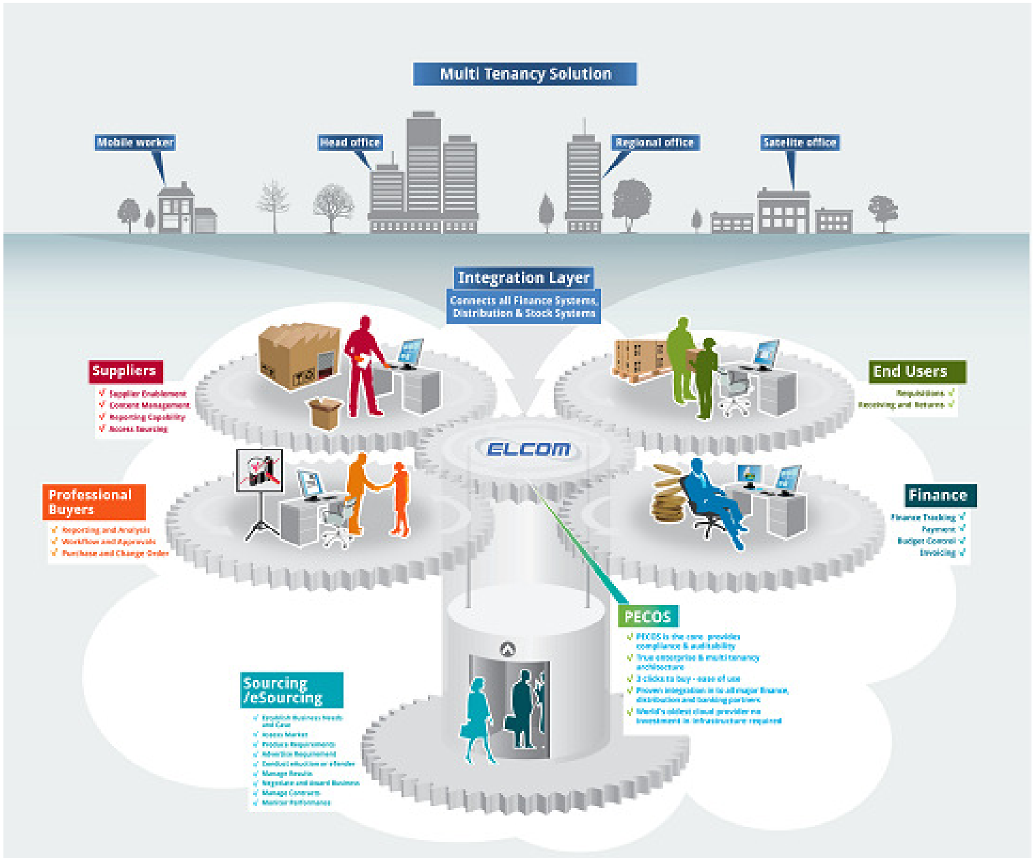
At the heart of PECOS P2P is a best of breed workflow engine which manages transactions and approvals, and supports seamless interfaces into finance and ERP systems. Purchase information and General Ledgers can be updated in real time with easy reconciliation of commitments and spend at period end.

PECOS P2P works for suppliers too. Suppliers can receive orders by multiple channels - from eMail to direct electronic XML interface with a supplier's Sales Order Processing System. Invoices can be processed through PECOS P2P, or suppliers can submit electronic invoices directly for two or three-way matching and settlement.

1.2.1 Configuration and Business Rules

PECOS P2P will be configured and customised for your organisation so that your approval process follows your business rules.

- The access that each user has to data such as catalogues and account codes as well as access to read other users orders and requisitions is restricted by individual User Profiles maintained by your System Administrator.
- The format and content of Requisitions is automated. PECOS P2P will populate default data from user and supplier profiles to expedite the accurate completion of each order request. After selecting the items you wish to order, there may be no need to anything else other than click 'submit'!
- PECOS P2P will automatically route requisitions and order requests to the individuals and managers (approvers) your organisation specifies. This approval routing cannot be by-passed by a requisitioner.
- PECOS P2P can put time limits on approval steps and may contain 'escalations' to ensure that a document does not get stuck in the approval process.
- Purchase orders are automatically created and transmitted electronically to your suppliers after all the necessary approval steps have been completed.



1.3 Overview

PECOS P2P contains an extremely flexible workflow engine which allows the business processes and approval rules within your organisation to be replicated automatically as approval plans.

The following documents can be routed through an approval plan:

- Requisitions
- Orders
- Change Orders
- Receipts
- Invoices

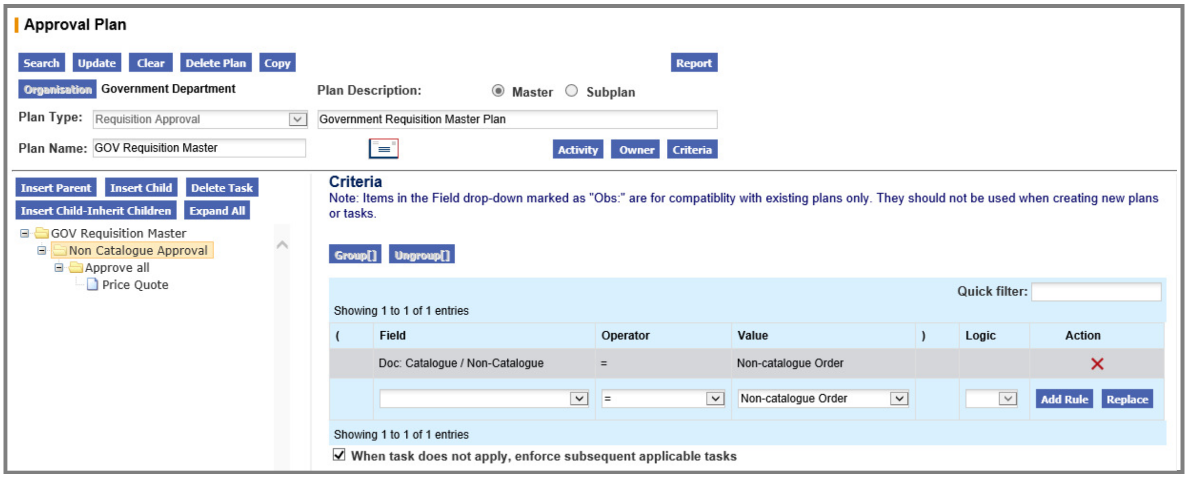
Different criteria exist for each type of approval plan which, either individually or combined, make up the logical rules that documents follow during the workflow process. These rules are therefore fixed and predefined: document creators and approvers are not able to alter, bypass or over-ride them at any time. Authorisers will be notified by eMail when they are expected to action an approval and each action taken in the system will then be fully logged and time stamped in an audit trail.

The flexibility of the approval workflow(s) means that you can set up your approval rules to be as simple or complex as your organisation requires. You may require one generic approval plan for use throughout your whole organisation or many individual department plans, some of which share common rules. It is worth spending some time reviewing your existing approval processes with senior managers. Document current practices – good and bad – and review organisational policy and any standing financial instructions that exist.

An Approval Plan can consist of many tasks and these can be serial (one after the other, completed separately) or parallel (multiple tasks undertaken together). Each Approval task will be assigned an owner (e.g. an approver) or a group of owners by assigning an approval 'role'. Criteria must be used to identify at what point each approval task will be invoked. These tasks are set up in a hierarchical structure, with documents following a strict order of approval, from top to bottom.

For further details on how to add and update Workflow tasks and Approval Plans generally please refer to the PECOS P2P Administration Guide. This document will focus solely on the use of different criteria which can be used within a plan.

There are over 80 different criteria which can be used to set up the workflow and this document will look at each of them and explain when and how they should be used.



The workflow is maintained using a graphical interface. This enables simple administration maintenance as no technical skills are required to maintain even very complex workflow rules.

1.4 System Requirements

Details of required software, supported platforms and web browsers can be found in the current version of the **Supported Technology Guide for PECOS**.

Note that the recommended platform will greatly enhance performance. If you are in any doubt please speak to your local IT department.

2 Types of Approval Plan

Approval plans can be defined for Requisitions, Purchase Orders, Change Orders, Receipts and Invoices. Each user may have one of each plan type assigned to them in an Approval Rule Group.

- **Requisition Plan:** This type of plan will route the entire requisition for approval. A requisition plan will be followed ***before*** a purchase order plan.
- **Purchase Order Plan:** This type of plan will route the individual order requests that are created from the requisition. One order is created for each supplier. A purchase order plan will be followed ***after*** a requisition plan.
- **Change Order Plan:** A change order plan is used only for the routing and approval of Change Orders and not for original requisitions and orders. Note that if no change order plan is assigned, change orders submitted by users will not be approved.
- **Receipt Plan:** This plan routes a receipt object (i.e. a GRN) for review and approval immediately after a receipt is saved. It provides a process for multi-stage receipting and, although not directly affecting the matching process, it enables delivery discrepancies to be resolved prior to invoice settlement.
- **Invoice Settlement Plan:** An invoice settlement plan is used during financial settlement (after matching) to route invoices for approval and also to route manual invoices. If no Invoice Settlement Plan is assigned to a user, invoices will not be routed for approval.

It is also important when setting up an Approval Plan to consider the benefits of using Master and Sub plans. It is possible to set up a master plan and within that have criteria to call upon different sub plans.

- **Master Plans:** These are the main plans that are assigned to users. They may be any type: Requisition, Purchase Order, Invoice Settlement or Change Order and utilise sub plans of the same type.
- **Sub Plans:** Sub plans are created primarily to avoid the recreation of the same approval criteria within multiple master plans. They may also be of any type and be utilised within master plans of the same type.

For example, organisationally consistent commodity based approval rules could each be maintained on different Sub plans and be triggered by criteria set in each Master Plan. See Example 3 for examples of how Master and Sub plans can be used to simplify Approval Plan maintenance.

- **Escalation** can also be built into the workflow to ensure that if an item has not been approved in a sufficient timeframe it will be escalated forwards to another approver. Escalation activity is controlled by an organisationally defined calendar that can set working time and holidays. Note that it is not possible to escalate to a Sub Plan.

Workflow criteria cannot be by-passed. An approver can forward approval to another user through 'Approval Delegation' but cannot alter the reason or basis for approval: all workflow rules are followed strictly in the order they are created.

PECOS P2P will ensure that when an order reaches the supplier it has been correctly and consistently approved by the correct personnel within your organisation. There can be no user 'workarounds' in terms of when a document is sent for approval.

It is important that all new workflow plans and any changes to existing workflow plans are thoroughly tested before being deployed to a live Production System. If you have not correctly defined the criteria on a workflow step, it is possible for a document to be processed without approval because the document does not meet any of the criteria you have defined. It is important, therefore, to ensure that you have documented all the possible scenarios before creating or changing workflow.

3 Approval Tasks

3.1 Configuration

Each approval task (or step) is defined in three sub windows within the Approval Plan Menu:

a) **Activity (what):** Defines the task name, action to be performed, eMail notification format, audit trail formats and escalation setting.

b) **Owner (who):** Defines the owner of the task by assigning an approver by name or role. The approvers editing permission may be set along with how PECOS P2P is to resolve the approval action.

c) **Criteria (when):** Defines what PECOS P2P needs to look for in the requisition or purchase order, in order for it to be routed to the task owner to perform the task activity. The criteria are a set of variables that must all be true for the task to be invoked.

All requisition, purchase order, change order or invoice documents (depending on which type of plan is created) will flow through the entire approval plan. It is not possible for a document to bypass approval unless your workflow plan specifically allows it. Each task will be applied once, in the order it appears in the plan, starting at the top and ending at the bottom.

- If **all** the criteria contained in the task are valid, the activity will be undertaken.
- If **any** criteria in the task are not valid, the activity will not be undertaken and the PECOS P2P will move onto the next task.

PECOS P2P will evaluate each workflow step extremely quickly, so you will not incur a time penalty by having lots of steps in your workflow if your organisation needs them. Just remember that the more steps you have, the greater potential for delay if the order needs approval by lots of different people.

3.2 Changes During Approval

When a document starts in workflow, a routing ticket is produced creating an ID for all of the tasks in the approval plan *at that time*. As each document passes through the approval process it does so by following the routing ticket created, which references each task ID back to the approval plan. Therefore not all changes to approval plans will necessarily affect document routing.

- **Edits** to **existing** tasks are picked up and will affect document routing. For example, if a task is deactivated or criteria are altered (changed, added or removed).

  Note that for an edited task to affect routing, the document must not have already have gone past the edited task! Editing a task in an approval plan will not cause a diversion to the route of the document (i.e. it will not return back to the edited task).

- **New** tasks added are not picked up and will not affect document routing (there is no ID in the routing ticket).

  However, new tasks will be picked up if a document starts again from the start of an approval plan (i.e. a document is returned to the requisitioner by approver and the requisitioner resubmits the document).

4 Task Criteria

4.1 Types

Two types of criteria are available for use and are described in this section. Each single task criterion consists of three variables: field, operator and value, each of which is defined in the following section.

4.1.1 System Defined

This criterion is fixed and available for all system defined data fields available throughout the application. System defined criteria are defined in the following sections of this manual.

4.1.2 User Defined

This criterion is user defined and created by system administrators in the **User Field Definitions** options of the **Utilities** menu. The ‘Show in Approval Plan’ option must be selected during field creation for them to appear as options in approval plans.

a) Document User Fields

User fields will be either ***Invoice*** or ***Order*** fields and appear named as ‘User field’ + ‘*description*’ (the field’s Description). The type of document for which a user field is created will dictate which type of approval plan it will appear:

Invoice Document Type field: This field will appear only in invoice settlement plans as an “Invoice:” field.

Order Document Type field: This field will appear in all approval plans as an “Order:” field.

b) Item User Fields

User fields will be either ***Catalogue*** or ***Order*** fields and appear named as ‘User field’ + ‘*description*’ (the field’s Description). The type of document for which a user field is created will dictate which type of approval plan it will appear:

Catalogue Document Type field: This field will appear in Requisition Approval, Order Approval and Change Order Approval plans as a “Line:” field.

Order Document Type field: This field will appear in Requisition Approval, Order Approval and Change Order Approval plans as a “Line:” field.

4.2 Field

The field defines the data field within the document that PECOS P2P is to use for validating the task. Field types include:

- **Doc:** Applies to all document types (e.g. requisition, order, invoice and change order).
- **Inv:** Applies only to Invoices and appears only in Invoice Settlement Approval plans. These fields may be extended by utilising document user fields.
- **Line:** Applies to all types at the line level within a requisition, order and change order. Note: lines are not routed individually.

- **Order:** Applies to only orders and change orders. These fields may be extended by utilising document user fields.
- **Change Order:** Applies only to change order documents.
- **Req:** Applies only to requisitions.
- **Receipt:** Applies only to receipt documents.
- **Task:** Applies to the specific task within the same approval plan.

4.3 Operator

The operator is the operand linking the Field to a Field Value. Operators include:

- **=** :equal to financial operator
- **!=** :not equal to financial operator
- **>** :greater than financial operator
- **<** :less than financial operator
- **>=** :greater than or equal to financial operator
- **<=** :less than or equal to financial operator
- **Includes**: When the operator is used the value specified will be used to validate the task. The value must be an exact match and is case sensitive. 'Includes' and 'Does not include' are used when values are selected from a drop down list.
- **Does not include**: When the operator is used the value specified will not be used to validate the task. The value must be an exact match and is case sensitive. 'Includes' and 'Does not include' are used when values are selected from a drop down list.
- **Contains**: When the operator is used any part of the value specified will be used to validate the task. 'Contains' and 'Does not contain' are used when values are entered as a string of characters into a text box.

  Example: A project manager is responsible for approving all invoices allocated to certain projects. Project codes are identified by a series of numbers and letters where certain letters refer to specific project managers (e.g. 145XP98P, 149TC67P). Solution: criterion for the project code segment is selected using the operator “Contains” with a Value “XP”. Therefore all project codes which contain the letters ‘XP’ that are preceded or followed by any value will be valid for the task activity.
- **Does not Contain**: When the operator is used any part of the value specified will not be used to validate the task. 'Contains' and 'Does not contain' are used when values are entered as a string of characters into a text box.

  Example: A project manager is responsible for approving all invoices allocated to certain projects. Project codes are identified by a series of numbers and letters where certain letters refer to specific project managers (e.g. 145XP98P, 149TC67P). Solution: criterion for the project code segment is selected using the operator “Does not contain” with a Value “TC”. Therefore all project codes which contain the letters ‘TC’ that are preceded or followed by any value will not be valid for the task activity.
- **Is empty**: The selected field contains no value. 'Is empty' and 'Is not empty' are used when values are selected from a drop down list.
- **Is not empty**: The selected field contains a value. 'Is empty' and 'Is not empty' are used when values are selected from a drop down list.
- **Is blank**: Selected field contains no value. 'Is blank' and 'Is not blank' are used when values are entered as a string of characters into a text box.
- **Is not blank** :Selected field contains a value. 'Is blank' and 'Is not blank' are used when values are entered as a string of characters into a text box.
- **Starts with**: When the operator is used the value specified will be validated based on codes starting with that value.

  Example: A cost centre manager is responsible for approving all requisitions for a range of cost centres from 120 to 129. Solution: approval plan criterion for the cost centre segment is selected using the operator “Starts with” with the Value “12”. Therefore all cost centres which start with ‘12’ and are followed by any value will be valid for the task activity.
- **Ends with**: When the operator is used the value specified will be validated based on the code ending with that value.

  Example: A commodity manager is responsible for approving all orders containing office supplies. Office supplies are all accounted for using a range of expense accounts which end with 99. Solution: approval plan criterion for the expense account segment is selected using the operator “Ends with” with the Value “99”. Therefore all expense accounts which end with the numbers ‘99’ and are preceded by any value will be valid for the task activity.

4.4 Value

The field value to be used (in conjunction with the operator) in determining if the task is valid.

Operators and Values are dependant upon the Field selected. Some Values will be selectable in a Drop Down List Box and others may be input in a text field.

Alphabetical Values are case sensitive and must be input accurately. I.E. P2P will look for an exact match when determining if the task is valid. For example if a task uses an ‘equal to’ or ‘includes’ criteria and depends upon a supplier name and the supplier’s profile name is “I.T. Supplies Ltd”, this name must be input exactly with all spaces, punctuation and cases being correct. In this example, “IT Supplies Ltd” and “I.T.Supplies” will not be recognised and the task will fail.

5 Criteria Field Tables

The following section contains tables for all the system fields available by field type. Each field describes the operators available, the values that are accepted and a brief description of its use, with an example.

5.1 Document Criteria

These are all prefixed with “Doc:” and relate to the entire document and can be used in a Requisition, Purchase Order, Change Order, Receipt or Invoice Settlement plan.

Field	Operator	Value	Comments
Buy-for user	= !=	Requisitioner	Used to determine if the requisition contains a buy-for-user different to the requisitioner **Example:** *Doc:Buy-For-User = John Smith.* This will cause any requisition where the Buy For User is John Smith to trigger the Approval Activity associated with this task.
Buy-for user’s ID	> < >= <= = != Contains Does not contain Is blank Is not blank Starts with Ends with	Enter a Value	Used to determine if the requisition contains a specific buy-for-user by reference to their I.E. user id. **Example:** *Doc:Buy-for user’s ID = jsmith004.* This will cause any requisition where the Buy For User’s ID is *jsmith004 (this will be a unique value)* to trigger the Approval Activity associated with this task.
Buy-For-User’s Approval Level	> < >= <= = !=	Enter a Value	This criterion evaluates the buy-for-user’s approval level found in their User Profile. It is generally used as ‘by-pass’ or ‘self approval’ criteria so a user’s requisition or order doesn’t require approval by approvers at or below their ‘level’. **Example:** *Doc:Buy-For-User’s Approval Level != 100* This will cause any requisition ordered on behalf of a person with the approval level of 100 to miss this approval step.
Catalog/Non-Catalog	= !=	Catalogue Order i.e. Order	Order level indicator whenever any line item in the order/requisition contains a i.e. item. **Example:** *Doc:Catalog/Non-Catalog = I.e. Order.* Any requisitions containing a i.e. item will now trigger this approval activity.
List of Category Codes	Includes Does not include Contains Does not contain Is empty Is not empty Starts with Ends with	Enter a Value	Represents the concatenated category hierarchy list, i.e. 43/17/12/10. **Example:** *Doc:List of Category Codes Includes 43/17.* If any items contain this category code, this approval step will be triggered.
List of Top Category Names	Includes Does not include Is empty	Enter a Value	List of Level 1 Category Names representing all line items in the order.

Field	Operator	Value	Comments
	Is not empty Contains Does not contain Starts with Ends with		**Example:** *Doc:List of Top Category Names Include Food.* In this case where a level one category contains the word Food this approval step will be triggered.
List of Item Numbers	Includes Does not include Is empty Is not empty Contains Does not contain Starts with Ends with	Enter a Value	This criterion evaluates the supplier part number and represents all line items in the order. **Example:** *Doc: List of item numbers Includes 356AB1. If any document contains this item, the approval step will be triggered.*
Organisational Unit Name	> < >= <= = != Contains Does not contain Is blank Is not blank Starts with Ends with	Enter a Value of organisation name	The criterion evaluates the document created where organisation name assigned to the document meets the selected value. **Example:** *Doc:Organisational Name Unit != Purchasing* All requisitions raised outside the Purchasing Department will trigger this approval step.
Requester's Approval Level	> < >= <= = !=	Enter a Value	This criterion evaluates the requisitioner's approval level found in their User Profile. It is generally used as 'by-pass' criteria so a user's req/order doesn't require approval by approvers at or below their approval level. **Example:** *Doc:Requisitioner's Approval Level != 100* This will cause any requisition raised by a person with the approval level of 100 to miss this approval step.
Requisitioner's ID	> < >= <= = != Contains Does not contain Is blank	Enter a Value	Evaluates the requisitioner's user ID. Note, this is not the user's name but their login id. **Example:** *Doc:Requisitioner's ID = Mary Jones*. Any requisitions raised by Mary Jones will trigger this approval step.

Field	Operator	Value	Comments
	Is not blank Starts with Ends with		
Requisitioner’s e-mail	> < >= <= = != Contains Does not contain Is blank Is not blank Starts with Ends with	Enter a Value	Evaluates the requisitioner’s email address that is contained in their user profile. **Example:** *Doc:Requisitioner’s e-mail = maryjones@acme.com*. Any requisitions raised by a user with this email address will trigger this approval step.
Segment Name List	Includes Does not include Is empty Is not empty Contains Does not contain Starts with Ends with	Segment 1 Segment 2 Segment 3	Identifies the unique list of financial segment names existing for all lines of the order. **Example:** *Doc:Segment Name List Includes Project Code.* Any requisitions being charged to a project code will be triggered for approval
Segment 1 “*Name*” Account List *	Includes Does not include Is empty Is not empty Contains Does not contain Starts with Ends with	Enter Value of Segment code	Identifies if the entered segment value exists for this segment, for any line in the order. **Example:** *Doc:Cost Centre Includes 07323.* In this case any requisition being charged to cost centre 07323 will be triggered for approval. (Where ‘Cost Centre’ is the name of the first segment)
Segment 2 “*Name*” Account List *	Includes Does not include Is empty Is not empty Contains Does not contain Starts with Ends with	Enter Value of Segment code	Identifies if the entered segment value exists for this segment, for any line in the order. **Example:** *Doc:Nominal Contains AB87.* In this case any requisition being charged to a nominal code that contains AB87 will be triggered for approval. (Where ‘Nominal’ is the name of the second segment)

Field	Operator	Value	Comments
Segment 3 "*Name*" Account List *	Includes Does not include Is empty Is not empty Contains Does not contain Starts with Ends with	Enter Value of Segment code	Identifies if the entered segment value exists for this segment, for any line in the order. **Example:** *Doc:Project Code Starts with X.* In this case any requisition being charged to a project code that begins with a X will be triggered for approval. (Where 'Project Code' is the name of the third segment)

* Note that one Segment Account List criteria will exist for each segment for each accounting Method configured.

Total Amount**	> < >= <= = !=	Enter Value – Total amount of the Document that is the subject of the approval plan. (Requisition, order, change order or invoice)	Criteria evaluates the total amount of the Document (requisition, order or invoice – depending on the type of plan). The currency chosen will be that of the order. **Example:** *Doc:Total Amount >=100* When used in a requisition plan: any requisition where the total amount (i.e. all lines for all suppliers) is equal to or greater than 100 (pounds) will trigger this approval step.

** Total Amount definition will vary depending on the Approval Plan Type:

Requisition Plan = Total requisition document value, not including estimated freight or tax; Purchase Order Plan = Total purchase order document value, not including estimated freight or tax; Change Order Plan = Total purchase order document value, not including estimated freight or tax; Invoice Settlement Plan = Total invoice document amount (the gross invoice total including all Delivery and VAT entered on the invoice).

Total Amount (+ frt. and tax) ***	> < >= <= = !=	Enter Value – Total amount of the Document that is the subject of the approval plan. (Order or Change Order)	Criteria evaluates the total amount of a requisition, purchase order or change order including any value entered into the estimated tax or freight fields in the order delivery and invoicing screen. The currency chosen will be that of the order. **Example:** *Doc:Total Amount (+frt and tax) >=100* When used in a purchase order plan: any order where the total order amount plus values entered into estimated tax or freight fields is equal to or greater than 100 (pounds) will trigger this approval step.

*** Total Amount (freight and tax) definition will vary depending on the Approval Plan Type:

Requisition Plan = Total requisition document value, including estimated freight and tax (entered into the order delivery and invoicing screen); Purchase Order Plan = Total purchase order document value, including estimated freight and tax (entered into the order delivery and invoicing screen); Change Order Plan = Total purchase order document value, including estimated freight and tax (entered into the order delivery and invoicing screen); Invoice Settlement Plan = DO NOT USE.

Workflow Plan Name	> < >= <= = !=	Enter a Value	Evaluates the Plan Name. **Example:** *Doc:Workflow plan name Does Not Contain Marketing.* Any approval plan that does not contain the word 'Marketing' will trigger this step.

Field	Operator	Value	Comments
	Contains Does not contain Is blank Is not blank Starts with Ends with		
Workflow Task Name	> < >= <= = != Contains Does not contain Is blank Is not blank Starts with Ends with	Enter a Value	Evaluates the Task Name **Example:** *Doc:Workflow task name = Approve.* Only approval tasks that contain the word ‘Approve’ will trigger this step.

5.2 Line Level Criteria – All Plans

These are all prefixed with “Line:” and will look at the value of the criteria relating to the individual line items being ordered. These can be used with Purchase Order, Requisition, Change Order, Receipt or Invoice Settlement plans (unless otherwise indicated). A number of additional Item User Defined fields may also be available.

Field	Operator	Value	Comments
Attachment Description	Includes Does not include Contains Does not contain Is empty Is not empty Starts with Ends with	Enter a Value	This criterion enables documents to be routed based on the presence or absence of an attachment associated to the original requisition or purchase order document at line level. The field will test (by text value) the description of an attachment, whether added locally or from a list of standard attachments. **Example:** *Line:Attachment Description Contains Zero A.* If any item has a line level attachment associated to the order, with a description that contains the text 'Zero A', this approval step will be triggered. {Note. This criterion is not available for Receipt Plan types.}
Catalogue	= !=	Choose a catalogue from the drop down list box	Criterion evaluates the catalogue chosen from list. **Example:** *Line:Catalogue != Internal Requisitions* containing catalogue items from any catalogue other than the Internal Catalogue will trigger this approval step.
Category code	> < >=	Enter Valid Value (e.g. UNSPSC Code	Represents the concatenated category hierarchy list, i.e. 43/17/12/10. **Example:** *Line:Category code = 43/17/12/10.* If any line item has this category code, this approval step will be triggered.

Field	Operator	Value	Comments
	<= = != Contains Does not contain Is blank Is not blank Starts with Ends with	or Proprietary Classification)	
Contract ID	> < >= <= = != Contains Does not contain Is blank Is not blank Starts with Ends with	Enter Value	Evaluates based on Contract ID value. **Example:** *Line:Contract ID = AB6746.* If any line item has this Contract ID, this approval step will be triggered.
Control Regulation	> < >= <= = != Contains Does not contain Is blank Is not blank Starts with Ends with	Enter Value	Evaluates based on Control Regulation value. **Example:** *Line:Control Regulation Contains COSH.* If any line item contains this string, this approval step will be triggered.
Currency	> < >= <= = != Contains Does not contain	Enter Valid ISO Currency Value	Evaluates based on item Currency **Example:** *Line:Currency = EUR.* If any line item has a catalogue currency of Euro, this approval step will be triggered.

Field	Operator	Value	Comments
	Is blank Is not blank Starts with Ends with		
Description	> < >= <= = != Contains Does not contain Is blank Is not blank Starts with Ends with	Enter Value	Evaluates based on description **Example:** *Line:Description Contains Printer.* Any line item where the description contains the word Printer will trigger this approval step.
Extended price	> < >= <= = !=	Enter Value	Evaluates based on extended price. (Extended Price = Quantity x unit price). In other words, the total for the line. **Example:** *Line:Extended price =>200* If any line has an extended price greater than £200, this approval step will be triggered.
GHS Hazard Warning	= != Is blank Is not blank	If = or !=: choose a Hazard Code from the drop down list.	Evaluates based on the 5 digit United Nations Globally Harmonized System of Classification and Labelling of Chemicals code. Allowed values are 'GHS01' to 'GHS09'. **Example:** *Line:GHS Hazard Warning = GHS06.* If any line item has a hazard warning code of GHS06 (Toxic) assigned, this approval step will be triggered.
GTIN	> < >= <= = != Contains Does not contain Is blank Is not blank Starts with Ends with	Enter Value	Evaluates based on GTIN. **Example:** *Line:GTIN Starts with 16535.* Any line item which has a GTIN beginning with this string of numbers will trigger this approval step.

Field	Operator	Value	Comments
Item Number	> < >= <= = != Contains Does not contain Is blank Is not blank Starts with Ends with	Enter Value	Evaluates the supplier part number. **Example:** *Line: Item Number = AB6746. If any line item has this exact item number, this approval step will be triggered.*
Lead Time	> < >= <= = != Is blank Is not blank	Enter a Decimal Number	Evaluates based on Lead Time (i.e. Days expressed as a number). **Example:** *Line:Lead Time > 7.* Any line item which has a Lead Time greater than 7 days will trigger this approval step.
Item End Date	> < >= <= = != Is blank Is not blank	System Date (i.e. the current date) Requisition Date (i.e. the date the requisition was submitted) Order Date * (i.e. date of the original purchase order, blanket order or blanket release)	Evaluates the end date of the item. **Example:** *Line:Item End Date < System Date.* Any line item which has an expired end date (i.e. has a date that is less than the current date) will trigger this approval step. {Note. This criterion is not available for Receipt and Invoice Settlement Plan types.} * Note that the Order Date value is not available for Requisition Approval Plans
Item Start Date	> < >= <= = != Is blank Is not blank	System Date (i.e. the current date) Requisition Date (i.e. the date the requisition was submitted) Order Date * (i.e. date of the original purchase order,	Evaluates the start date of the item. **Example:** *Line:Item Start Date Is blank.* Any line item which does not have a start date defined will trigger this approval step. {Note. This criterion is not available for Receipt and Invoice Settlement Plan types.} * Note that the Order Date value is not available for Requisition Approval Plans

Field	Operator	Value	Comments
		blanket order or blanket release)	
List of category codes	Includes Does not include Contains Does not contain Is empty Is not empty Starts with Ends with	Enter a Value	Represents the concatenated category hierarchy list, i.e. 43/17/12/10. **Example:** *Line:List of category codes Includes 43/17.* If any item contains this category code, this approval step will be triggered.
Long Description	> < >= <= = != Contains Does not contain Is blank Is not blank Starts with Ends with	Enter a Value	Evaluates based on Long Description. **Example:** *Line:Long Description Contains Ozone Depleting.* Any line item where the long description contains the string 'Ozone Depleting' will trigger this approval step.
Manufacturer	> < >= <= = != Contains Does not contain Is blank Is not blank Starts with Ends with	Enter Value	Evaluates based on manufacturer name. Manufacturer can be found via the Item Maintenance Page or by searching the catalogue. **Example:** *Line:Manufacturer = Sony.* Any Sony items requested will now trigger this approval step.
Manufacturer part number	> < >= <= = !=	Enter Value	Evaluates based on manufacturer part number. The part number can be found via the Item Maintenance Page or by searching the catalogue. **Example:** *Line:Manufacturer part number = SGJ2345.* This approval step will now be triggered by any requisitions for this part number.

Field	Operator	Value	Comments
	Contains Does not contain Is blank Is not blank Starts with Ends with		
Preferred rating	> < >= <= = !=	Enter Value	Evaluates based on preferred rating (i.e. a value from 1 to 10). **Example:** *Line:Preferred rating = 10.* When an item has a preferred rating equal to 10, this workflow step will be triggered.
Quantity	> < >= <= = !=	Enter Value	Evaluates based on quantity for a given line. **Example:** *Line:Quantity>100.* If anyone tries to order more than 100 of any given line item, this approval step will be triggered.
Segment Name List	Includes Does not include Is empty Is not empty Contains Does not contain Starts with Ends with	Enter Value of Segment Name	A list of segment names applicable to any given line. (Ideally used with compound line criteria: i.e. Segment name list contains ‘project’ and categorisation contains ‘xx’). **Example:** *Line:Segment Name List Includes Project Code.* Any requisition containing items being charged to a project code will be triggered for approval
Segment 1 “*Name*” Account List *	Includes Does not include Is empty Is not empty Contains Does not contain Starts with Ends with	Enter Value of Segment code	Identifies if the entered segment value exists for this segment, for any line in the order. **Example:** *Line:Cost Centre Includes 07323.* In this case any requisition being charged to cost centre 07323 will be triggered for approval. (Where ‘Cost Centre’ is the name of the first segment)
Segment 2 “*Name*” Account List *	Includes Does not include Is empty Is not empty Contains	Enter Value of Segment code	Identifies if the entered segment value exists for this segment, for any line in the order. **Example:** *Line:Nominal Contains AB87.* In this case any requisition being charged to a nominal code that contains AB87 will be triggered for approval. (Where ‘Nominal’ is the name of the second segment)

Field	Operator	Value	Comments
	Does not contain Starts with Ends with		
Segment 3 "*Name*" Account List *	Includes Does not include Is empty Is not empty Contains Does not contain Starts with Ends with	Enter Value of Segment code	Identifies if the entered segment value exists for this segment, for any line in the order. **Example:** *Line:Project Code Starts with X.* In this case any requisition being charged to a project code that begins with a X will be triggered for approval. (Where 'Project Code' is the name of the third segment)
* Note that one Segment Account List criteria will exist for each segment for each accounting Method configured.			
Settlement Type	= !=	Quantity Amount	Evaluated based on Settlement Type (i.e. quantity or amount). **Example:** *Line:Settlement Type = Amount.* When an amount based item is found on the requisition this approval step will be triggered.
Type	= !=	Regular Configuration Consolidation Dynamic Document Quote	Evaluated based on line type. Regular is any catalogue or i.e. line. Configuration is any item marked with a configuration id. Consolidation are items marked for consolidation (typically is the entire order). **Example:** *Line:Type = Dynamic Document.* Where any line type is 'Dynamic Document' this approval step will be triggered.
UN TDG Hazard Code	> < >= <= = != Contains Does not contain Is blank Is not blank Starts with Ends with	Enter Value	Evaluates based on UN TDG Hazard Code. **Example:** *Line:UN TDG Hazard Code Contains AX87.* Any line item where the hazard code contains this string will trigger this approval step.
Unit of measure	> < >= <= = !=	Enter Value	Evaluated based on Unit of Measure assigned to a line item. Unit of Measure (UoM) can be found in Item Maintenance. **Example:** *Line:Unit of measure = BX.* This would route anything ordered by the box for approval.

Field	Operator	Value	Comments
	Contains Does not contain Is blank Is not blank Starts with Ends with		
Unit price	> < >= <= = !=	Enter Value	Evaluated based on Unit Price of an Item. **Example:** *Line:Unit price > 500.* In this case, any requisition containing a single item greater than 500 (pounds) will trigger this approval step.
UOMQ	> < >= <= = !=	Enter Value	Evaluated based on Unit of Measure Quantity. **Example:** *Line:UOMQ > 10.* In this case, a requisition containing any item with a unit of measure quantity greater than 10 will trigger this approval step.
User field	> < >= <= = != Contains Does not contain Is blank Is not blank Starts with Ends with	Enter Value Or Select a Value from drop down list box.	All ***Item*** User Field Definitions (Catalogue and Order type) created to ***Show in Approval Plan*** will appear in this section of criteria. Note that user fields may be created as either mandatory or optional and may therefore not contain a value. All fields will appear prefixed with: “User field” and then display the field Description (the Description field value entered when the field was created). The ***Value*** entered will depend on the configuration of the field. If the field has been created with User Field Options, a drop down list box will appear containing the values for selection. If no User Field Options are configured, a text box will be available for the entry of any value. **Example:** *Line: User field Hazmat Number = 769P/87.* In this case, any document containing this hazardous material number will trigger this approval step. Note that Item User fields can only be used with Requisition, Order and Change Order approval plans (i.e. not with Invoice Settlement plans).
VAT Treatment	= !=	Select a Value from drop down list box. Values contain VAT Treatment Types.	Evaluated based on VAT Treatment assigned or defaulted to the line. **Example:** *Line:VAT Treatment = Zero Rated.* Any line containing an item with VAT being treated as Zero Rated would trigger this approval step.

5.3 Line Level Criteria – Invoice Settlement Only

These are all prefixed with “Line:” and look at the value of the criteria relating to the individual line items being ordered. These can be used with Invoice Settlement plans only.

Field	Operator	Value	Comments
Mismatch Type	= !=	Select a Value from drop down list box.	Being: a) Deactivated invoice item (represents an item in a deactivated state); b) Item not on order (being an item added during invoice processing); c) Match between order and invoice pending receipt (represents a mismatch for no receipt); d) Partial match between order and invoice; e) Pending initial match (i.e. match not yet run); f) Perfect match between order and invoice; g) Price discrepancy between order and invoice; h) Quantity discrepancy between order and invoice; i) Return pending credit invoice; Self-billing invoice. *(NOTE. Any value displayed in the application but not listed here, is currently inactive or not used.)* Evaluated based on the post matching status of any line item. **Example:** *Line: Mismatch Type = Partial match between order and invoice.* Any document with a mismatched line containing the status ‘Partial match between order and invoice’ would trigger this approval step.

5.4 Line Level Criteria – Receipts Only

These are all prefixed with “Line:” and look at the value of the criteria relating to the individual line items being ordered. These can be used with Receipt Approval plans only.

Field	Operator	Value	Comments
Line SSCC	> < >= <= = != Contains Does not contain Is blank Is not blank Starts with Ends with	Enter Value	Evaluates the SSCC field at the line level. **Example:** *Line: Line SSCC Starts with 56326* Any receipt that contains any line that starts with this string will be routed for review and approval.
Received to Date	> < >= <= = !=	Select a Value from drop down list box.	Evaluates the total amount or quantity received to date for any line, against the quantity or amount returned or ordered. Select either: a) Quantity/ Amount Returned or b) Quantity / Amount Ordered. **Example:** *Line: Received to Date > Qty/Amt Ordered* Any line that is over receipted will cause the receipt to be routed for review and approval.

5.5 Line Level Criteria – Budget Checking Only

These are all prefixed with “Line:” and look at the value of the criteria relating to the individual line items being ordered. These can be used with Purchase Order, Change Order and Invoice Settlement plans only.

Field	Operator	Value	Comments
Amount over cumulative availability	> < >= <= = !=	Enter Value	Criterion allows approval requirement to be restricted or determined by a specific amount exceeding the cumulative to date availability for a line. **Example:** *Line: Amount over cumulative availability > 100.* Any line with an extended value in excess of 100 (e.g. USD or GBP) of the cumulative availability will trigger approval.
Amount over period availability	> < >= <= = !=	Enter Value	Criterion allows approval requirement to be restricted or determined by a specific amount exceeding the current period availability for a line. **Example:** *Line: Amount over period availability > 100.* Any line with an extended value in excess of 100 (e.g. USD or GBP) of the period availability will trigger approval.
Budget Owner or Owners	Includes Does not include Is empty Is not empty Contains Does not contain Starts with Ends with	Enter Value	Evaluates based on the budget owner for the line **Example:** *Line: Budget owner or owners Contains Bill Withers.* Any line item where the budget owner is Bill Withers will trigger this approval step.
Percentage over cumulative availability	> < >= <= = !=	Enter Value	Criterion allows approval requirement to be restricted or determined by a specific percentage exceeding the cumulative to date availability for a line. **Example:** *Line: Percentage over cumulative availability > 5.* Any line with an extended value in excess of 5 percent of the cumulative availability will trigger approval.
Percentage over period availability	> < >= <= = !=	Enter Value	Criterion allows approval requirement to be restricted or determined by a specific percentage exceeding the current period availability for a line. **Example:** *Line: Percentage over period availability > 5.* Any line with an extended value in excess of 5 percent of the period availability will trigger approval.

5.6 Order Level Criteria

These are all prefixed with “Order:” and the system will verify the value of the criteria at order level. These fields are available for all plan types (unless otherwise indicated). Note that in addition to these system defined fields, User Defined fields (order type) created using Document User Field Definitions may also be available.

Field	Operator	Value	Comments
Attachment Description	Includes Does not include Contains Does not contain Is empty Is not empty Starts with Ends with	Enter a Value	This criterion enables documents to be routed based on the presence or absence of an order level attachment associated to the order document. The field will test (by text value) the description of an attachment, whether added locally or from a list of standard attachments. **Example:** *Order: Attachment Description Contains Zero A.* If any order has an order level attachment associated to it, with a description that contains the text 'Zero A', this approval step will be triggered. {* Note. This criterion is not available for Receipt Plan types.}
Buy-For User GSRN	> < >= <= = != Contains Does not contain Is blank Is not blank Starts with Ends with	Enter Value	Evaluated based on the GSRN of the Buy-for user. **Example:** *Order: Buy-For User GSRN = 6598413254.* Only a document containing this GSRN reference for the Buy-for user will trigger this step in the plan.
Carrier Code	= !=	Select a carrier code value from a list box.	Evaluated based on carrier code selection. **Note: Used in the US only.**
Count of orders this month	> < >= <= = !=	Enter Value	Count of requisitions or orders (depending on plan type) placed by the requisitioner over the past 30 days (calendar). **Example:** *Order: Count of orders this month >= 10.* If the number of requisitions raised by this requisitioner in the past 30 days is equal to or greater than 10 this approval step will be activated.
Count of orders this week	> < >= <= = !=	Enter Value	Count of requisitions or orders (depending on plan type) placed by the requisitioner over the past 7 days (calendar). **Example:** *Order: Count of orders this week >= 10.* If the number of requisitions raised by this requisitioner in the past 7 days is equal to or greater than 10 this approval step will be activated.

Field	Operator	Value	Comments
Count of orders this year	> < >= <= = !=	Enter Value	Count of requisitions or orders (depending on plan type) placed by the requisitioner over the past 365 days (calendar). **Note: 2004 is leap year, therefore a day is added.** **Example:** *Order: Count of orders this year >= 100.* If the number of requisitions raised by this requisitioner in the past 365 days is equal to or greater than 100 this approval step will be activated.
Count of orders today	> < >= <= = !=	Enter Value	Count of requisitions or orders (depending on plan type) placed by the requisitioner today. **Example:** *Order: Count of orders today >= 10.* If the number of requisitions raised by this requisitioner today is equal to or greater than 10 this approval step will be activated.
Delivery Address Name	= != Starts with Ends with Is empty Is not empty Contains Does not contain	Enter Value	Evaluated based on the delivery address name / key. The value entered must match the value contained in the Delivery Address 'Name' field. **Example:** *Order: Delivery Address Name Contains D100.* Only a document containing 'D100' in the delivery address name will trigger this step in the plan. (Note. Depending upon localisation, this may be described as: 'Shipping Address Name'.)
Delivery Date	> < >= <= = != Is blank Is not blank	Enter Value	Evaluated based on the delivery date assigned to the order request. Note that not all order requests will necessarily have a delivery data assigned. The value entered must be a whole number but NOT 0. A value is not required for the is blank and is not blank operators. **Example 1:** *Order: Delivery Date is blank (no value required).* Any order that does not contain a delivery date will trigger this approval step. **Example 2:** *Order: Delivery Date < 2.* Any order that contains a delivery date which is less than 2 days from today's date will trigger this approval step. (This order is already overdue by date.) **Example 3:** *Order: Delivery Date >= 2.* Any order that contains a delivery date which is greater or equal than 2 days from today's date will trigger this approval step. (This order is still within due its date) (Note. Depending upon localisation, this may be described as: 'Shipping Date'.)
Delivery method	= !=	Select a delivery method value from the list box.	Evaluated based on delivery method selected. (Note. Depending upon localisation, this may be described as: 'Shipping Method'.)

Field	Operator	Value	Comments
FOB Terms	= !=	Select a FOB term value from a list box.	Evaluated based on FOB Terms selected. **Note. Used in the US only.**
Freight Terms	= !=	Select a freight term from the list box.	Evaluated based on Freight terms selected. **Note. Used in the US only.**
Payment Method	= !=	- Invoice - Procurement Card	Evaluated based on Payment Method of Invoice or Procurement Card. **Example:** *Order: Payment Method = Procurement Card.* Any order where the payment is made by Procurement Card will trigger this approval step.
Payment Terms	= !=	Select a payment term value from the list box.	Evaluated based on Payment Terms selected. **Example:** *Order: Payment Terms != Net 30.* Any order containing payment terms other than Net 30 will trigger this approval step.
PO Prefix	Starts with Ends with Is empty Is not empty Contains Does not contain	Enter Value	Evaluated based on the purchase order number prefix. The value entered must match the value attached to the PO Number from the 'PO Prefix' field configured in Organisation Information. **Example:** *Order: PO Prefix Starts with SCI.* Only a document with a purchase order number prefix with the value beginning ‘SCI’ will trigger this step in the plan.
Processing type	= !=	- Standard - Pending External Processing - Externally Processed	Used to determine if the order was marked as ‘already processed outside PECOS’ or ‘will be processed outside PECOS pending approval’. **Example:** *Order: Processing Type != Externally Processed.* All orders other than those which have already been processed outside PECOS will trigger this approval step.
Procurement card alias	> < >= <= = != Contains Does not contain Is blank Is not blank Starts with	Enter Value	Evaluated based on the procurement card alias. The value entered must match the value contained in the Procurement Card ‘Alias’ field. **Example:** *Order: Procurement Card Alias = Purchasing.* Only a Procurement Card with the alias of ‘Purchasing’ will trigger this step in the plan.

Field	Operator	Value	Comments
	Ends with		
Procurement card type	= !=	Select a procurement card type value from the list box.	Evaluated based on procurement card type selected. **Example:** *Order: Procurement Card Type != Visa.* If a non-Visa Procurement Card is used this step of the approval plan will be triggered.
Requisitioner GSRN	> < >= <= = != Contains Does not contain Is blank Is not blank Starts with Ends with	Enter Value	Evaluated based on the GSRN of the Requisitioner. **Example:** *Order: Requisitioner GSRN = 6598413254.* Only a document containing this GSRN reference for the Requisitioner will trigger this step in the plan.
Supplier email	> < >= <= = != Contains Does not contain Is blank Is not blank Starts with Ends with	Enter Value	This criterion relates to the value present in the supplier profile email address. **Example:** *Inv: Supplier's email contains 'southeast'.* All orders processed for a supplier that contains this value in their email address will be triggered.
Supplier GLN	> < >= <= = != Contains Does not contain Is blank Is not blank	Enter Value	Evaluated based on the GLN of the supplier. (Note that this field is not entered or edited during the requisition process but defaults from the supplier profile.) **Example:** *Order: Supplier GLN = 23654215465789.* Only a document containing this GLN reference for the supplier will trigger this step in the plan.

Field	Operator	Value	Comments
	Starts with Ends with		
Supplier name	> < >= <= = != Contains Does not contain Is blank Is not blank Starts with Ends with	Enter Value	Evaluated based on supplier name selected. **Example:** *Order: Supplier Name Contains Dell.* All orders where the supplier name contains the word Dell will trigger this approval step.
Supplier Number	> < >= <= = != Contains Does not contain Is blank Is not blank Starts with Ends with	Enter Value	Evaluated based on the Supplier Number entered. The value entered must match the ‘Supplier Number’ field in the Supplier profile. **Example:** *Order: Supplier Number = 176356.* Where the document contains a supplier which has been configured with a Supplier Number of 176356, this approval task would be triggered.
Supplier type	= !=	- Catalogue - Non Catalogue - User Defined - Unapproved User Defined - External Marketplace	Order supplier type can be used to identify the supplier type. Often used to identify user-defined suppliers. **Example:** *Order: Supplier Type = User Defined.* Where a supplier has been set up by the user this approval task would be triggered.

Field	Operator	Value	Comments
Total amount this month	> < >= <= = !=	Enter Value	Total amount of requisitions or orders (depending on plan type) placed by the requisitioner over the past 30 days (calendar) **Example:** *Order: Total amount this month > 3000.* If more than £3,000 worth of orders have been raised this month by this requisitioner this step will be triggered.
Total amount this week	> < >= <= = !=	Enter Value	Total amount of requisitions or orders (depending on plan type) placed by the requisitioner over the past 7 days (calendar) **Example:** *Order: Total amount this week > 1000.* If more than £1,000 worth of orders have been raised this week by this requisitioner this step will be triggered.
Total amount this year	> < >= <= = !=	Enter Value	Total amount of requisitions or orders (depending on plan type) placed by the requisitioner over the past 365 days (calendar). **Note: 2004 is leap year, therefore a day is added.** **Example:** *Order: Total amount this year > 10000.* If more than £10,000 worth of orders have been raised this year by this requisitioner this step will be triggered.
Total amount today	> < >= <= = !=	Enter Value	Total amount of requisitions or orders (depending on plan type) placed by the requisitioner today. **Example:** *Order: Total amount today > 500.* If more than £500 worth of orders have been raised today by this requisitioner this step will be triggered.
User defined p-card	= !=	- System defined - User-defined	Evaluated based on either system-defined procurement card or user defined procurement card. **Example:** *Order: user defined p-card = User Defined.* Where a user has set up their own p-card this task will be triggered.
User field	> < >= <= = != Contains Does not contain Is blank Is not blank Starts with	Enter Value Or Select a Value from drop down list box.	All ***Document*** User Field Definitions (Order type only) created to ***Show in Approval Plan*** will appear in this section of criteria. Note that user fields may be created as either mandatory or optional and may therefore not contain a value (ie will be blank). This field will appear in all approval plans. All fields will appear prefixed with: "User field" and then display the field Description (the Description field value entered when the field was created). The ***Value*** entered will depend on the configuration of the field. If the field has been created with User Field Options, a drop down list box will appear containing the values for selection. If no User Field Options are configured, a text box will be available for the entry of any value. **Example:** *Order: User field Supplier Type = Catering.* In this case, any document containing this value will trigger this approval step.

Field	Operator	Value	Comments
	Ends with		

5.7 Order Level Criteria – Change Orders Only

These are all prefixed with "Order:" and the system will verify the value of the criteria at order level. These fields are available for Change Order plans only.

Field	Operator	Value	Comments
Amount variance % - previous	> < >= <= = !=	Enter Value in percentage.	Evaluated based on order total variance percentage between current change order version and previous purchase order. **Example:** *Order: Amount variance % - previous > 5.* Each change order will now be compared to the previous one and will only trigger this approval step if the difference is greater than 5%
Amount variance % - original	> < >= <= = !=	Enter Value in percentage.	Evaluated based on order total variance percentage between current change order version and original purchase order. **Example:** *Order: Amount variance % - original > 10.* Each change order will now be compared to the original PO which it replaces and will only trigger this approval step if the difference is greater than 10%
Amount variance – original	> < >= <= = !=	Enter Value.	Evaluated based on order total variance between current change order version and original purchase order. **Example:** *Order: Amount variance – original > 100.* Each change order will now be compared to the original PO and will only trigger this approval step if the difference is greater than 100 (pounds)
Amount variance – previous	> < >= <= = !=	Enter Value	Evaluated based on order total variance percentage between current change order version and previous purchase order. **Example:** *Order: Amount variance – previous > 50.* Each change order will now be compared to the previous one and will only trigger this approval step if the difference is greater than 500 (pounds)

5.8 Order Level Criteria – Budget Checking Only

These are all prefixed with "Order:" and the system will verify the value of the criteria at order level. These fields are available for Purchase Order, Change Order and Invoice Settlement plans only.

Field	Operator	Value	Comments
Budget Status	= !=	Budget Approval Required; Within Budget	Evaluated based on whether any line is within budget or outside of budget and if budget approval is required. **Example:** *Order: Budget Status = Budget approval required.* The order will be sent for approval only if a line is over budget and requires approval. **Example:** *Order: Budget Status != Budget approval required.* The order will be sent for approval irrespective of a line being over budget (i.e. always approve if under budgetary control).

5.9 Order Level Criteria – Receipts Only

These are all prefixed with "Order:" and the system will verify the value of the criteria at order level. These fields are available for Receipt plans only.

Field	Operator	Value	Comments
Delivery Address GLN	> < >= <= = != Contains Does not contain Is blank Is not blank Starts with Ends with	Enter Value	Evaluates the GLN of the delivery address. **Example:** *Order: Delivery Address GLN Is Blank* If the GLN of the delivery address is blank (e.g. missing) this receipt will be routed for review and approval.
Header SSCC	> < >= <= = != Contains Does not contain Is blank Is not blank Starts with	Enter Value	Evaluates the SSCC in the receipt header **Example:** *Order: Header SSCC Is Blank* Any receipt that does not have a header level SSCC will be routed.

Field	Operator	Value	Comments
	Ends with		
Org Delivery SLA	> < >= <= = !=	Enter Value	Being the default Delivery SLA (in days) configured in organisation settings for the organisation assigned to the purchase order. **Example:** *Org Delivery SLA >= 3* All receipts will be routed, if the default delivery SLA for the purchase order organisation is less than or equal to 3 days.
Supplier Delivery SLA	> < >= <= = !=	Enter Value	Being the Delivery SLA (in days) configured for the purchase order supplier. **Example:** *Org Delivery SLA >= 3* All receipts will be routed, if the default delivery SLA for the purchase order supplier is less than or equal to 3 days.

5.10 Requisition Level Criteria

These are all prefixed with "Req:" and will be checked against requisition level data. These fields are available for all plan types (unless otherwise indicated). Budget User Fields are only available for Requisition plans.

Field	Operator	Value	Comments
Attachment Description	Includes Does not include Contains Does not contain Is empty Is not empty Starts with Ends with	Enter a Value	This criterion enables documents to be routed based on the presence or absence of a requisition level attachment associated to the requisition document. The field will test (by text value) the description of an attachment, whether added locally or from a list of standard attachments. **Example:** *Req: Attachment Description Contains Zero A.* If any requisition has a requisition level attachment associated to it, with a description that contains the text 'Zero A', this approval step will be triggered. {* Note. This criterion is not available for Receipt Plan types.}
Blanket type	= !=	- Blanket order based on amount - Blanket order based on quantity	Used for identifying amount or quantity blanket orders **Example:** *Req: Blanket type = Blanket order based on amount.* Where an order is an Amount based Blanket order this approval step will be triggered.
List of procurement card types	Includes Does not include Starts with Ends with Contains Does Not Contain	Select a Procurement Card Type value from the drop down list box.	Evaluated based on procurement card type selected. **Example:** *Req: Procurement Card Type != Visa.* If a non-Visa Procurement Card is used this step of the approval plan will be triggered. {Note. This criterion is available for Requisition Plan Types only}

Field	Operator	Value	Comments
	Is empty Is not empty		
Type	= !=	- Batch entered blanket release - Batch entered order - Blanket order - Blanket order release - Change order - Standard order	Evaluated based on document type selected. Note: the value ‘Change order’ should be used to differentiate criteria in a sub plan where Order and Change Order Master Plans use sub plans of a different type.(i.e. where PO and CO Plans share sub plans). **Example:** *Req: Type = Blanket Order.* All Blanket orders will now be routed for approval.

5.11 Task Type Criteria

These are all prefixed with “Task:”. All ‘Prior’ task criteria relate only to the previous task in the Workflow and therefore rely on the outcome of that previous task.
Two values are used for Prior tasks: 1, where the field argument is valid and 0 where the field argument is invalid. These fields are available for all plan types.

Field	Operator	Value	Comments
Owner Role Assignment	Includes Does not include Starts with Ends with Contains Does Not Contain Is empty Is not empty	Enter Value	Used in conjunction with ‘Is not empty’ so that tasks without owners are not routed to the site administrator **Example:** *Task: Owner Role Assignment Is not empty.* This will ensure that the step is only activated if there is an approver assigned to the approval role within the user’s approval rule group.
Prior approver’s approval limit	> < >= <= = !=	Doc: Total Amount.	This criterion is used with the approvers **Approval Limit** that is defined in the Approval Rule Group Role Assignment. It allows documents to be approved by a subsequent approval task when a prior approver has an approval limit that falls outside of the document total. **Example:** *Task: Prior approver’s approval limit < 500.* This will ensure that if a document was approved by a previous approver who had an approval limit less than the document total it would be selected for approval by this approval step.
Prior task(s) applied	> < >= <= = !=	Enter 0 or 1	The value is 1 if the prior task was applicable and completed normally (i.e. no expirations and no failures). Otherwise 0. **Example:** *Task: Prior task(s) applied = 1* This step would only be triggered where the previous step was completed successfully.

Field	Operator	Value	Comments
Prior task(s) expired	> < >= <= = !=	Enter 0 or 1	This field is used in conjunction with an Escalation Time Frame. This task must immediately proceed any task that contains an escalation activity. The value of 1 represents the expiry of a prior task- i.e. the prior task was not acted upon by the approval owner within the designated escalation period. The value of 0 will be assigned when a prior task has NOT expired. **Example:** *Task: Prior task(s) expired >0.* Used in conjunction with a specified escalation timeframe on the previous task, this task will be triggered if the previous task has not been approved in that timeframe.
Prior task(s) failed	> < >= <= = !=	Enter 0 or 1	The value of 1 will be assigned if a task fails (generally applicable to external program activities). The value of 0 will be assigned if a prior task did not encounter a failure **Example:** *Task: Prior task(s) failed = 1.* If an activity outside PECOS was supposed to happen when called by the prior task but didn't this subsequent task will be triggered
Prior task(s) not applicable	> < >= <= = !=	Enter 0 or 1	The value of 1 will be assigned each time a task is applied. If a task is not applied the value of 0 will be assigned. The value 1 therefore represents an instance where the prior task did apply or was applicable. The value 0 should be used where the prior task is required to have not been applied or by-passed. **Example:** *Task: Prior task(s) not applicable = 0.* If you only want this step to be actioned where the previous step was ignored this criteria would trigger it.

5.12 Receipt Document Criteria

These are all prefixed with "Receipt:" and relate to the receipt document. These criteria can only be used in a Receipt Approval plan.

Field	Operator	Value	Comments
Amount Received	> < >= <= = !=	Enter Value	Evaluates the amount received for any line that is amount based settled. **Example:** *Receipt: Amount Received = 0.* If the amount received is zero for any amount based settled line, the receipt will be routed.
Amount Received to Date	> < >= <= =	Enter Value	Evaluates the amount received to date for any line that is amount based settled. **Example:** *Receipt: Amount Received to Date = 0.* If the amount received to date is zero for any amount based settled line, the receipt will be routed.

Field	Operator	Value	Comments
	!=		
Attachment Description	Includes Does not include Starts with Ends with Contains Does Not Contain Is empty Is not empty	Enter Value	This criterion enables receipts to be routed based on the presence or absence of a receipt attachment at header (receipt attachment) or line level (line attachment). The field will test (by text value) the description of an attachment, whether added locally or from a list of standard attachments. **Example:** *Receipt: Attachment Description Contains Delivery*. If any receipt document has an attachment with a description that contains the text 'Delivery', this approval step will be triggered. **xample:** *Receipt: Attachment Description Is not empty.* If there is no attachment associated to the receipt, it will be routed.
Date Received	> < >= <= = != Contains Does not contain Is blank Is not blank Starts with Ends with	Enter Value	Evaluates the date received as entered in the receipt detail header. **Example:** *Receipt: Date Received contains 2016.* If the receipt date contains '2016' (e.g. it is for a prior year), it will be routed.
Delivery Note Number	> < >= <= = != Contains Does not contain Is blank Is not blank Starts with Ends with	Enter Value	Evaluates the delivery note number (i.e. GRN) as entered in the receipt detail header. **Example:** *Receipt: Delivery Note Number = unknown.* If the receipt record does not contain a delivery note number and has defaulted to 'unknown', it will be routed for review.
Document Receipt Status	= !=	Select a value from the drop down list box	Evaluates the receipt status. Select one of the following: a) Receipt not required b) No items received c) One or more items have been partially received d) All items have been fully received

Field	Operator	Value	Comments
			e) One or more items have been over received **Example:** *Receipt: Document Receipt Status = One or more items have been partially received.* If the receipt record is partially receipted, it will be routed for review.
Header Receipt Location	= !=	Select a value from the drop down list box	Evaluates the Receipt Location defined at header level. Select from the list box. **Example:** *Receipt: Header Receipt Location = Received to Stores (for collection).* The receipt will be routed if this location is selected in the receipt header.
Header Receipt State	= !=	Select a value from the drop down list box	Evaluates the Receipt State defined at header level. Select from the list box. **Example:** *Receipt: Header Receipt State = Damaged Item(s).* The receipt will be routed if this state is selected in the receipt header.
Line Receipt Location	= !=	Select a value from the drop down list box	Evaluates the Receipt Location defined at line level. Select from the list box. **Example:** *Receipt: Line Receipt Location = Received to Stores (for collection).* The receipt will be routed if this location is selected for any of the receipt lines.
Line Receipt State	= !=	Select a value from the drop down list box	Evaluates the Receipt State defined at line level. Select from the list box. **Example:** *Receipt: Line Receipt State = Damaged Item(s).* The receipt will be routed if this state is selected for any line.
Line Type	= !=	Standard Ad hoc	Evaluates the line type of the receipt: either standard (i.e. is derived from the PO) or Ad hoc (i.e. is added at the point of receipt). This criterion primarily enables receipts to be routed based on the presence of an Ad hoc line which may need to be reviewed or approved. **Example:** *Receipt: Line Type = Ad hoc.* The receipt will be routed if it contains an Ad hoc line.
Quantity Received	> < >= <= = !=	Enter Value	Evaluates the quantity received for any line that is not amount based settled. **Example:** *Receipt: Quantity Received = 0.* If the quantity received is zero for any non-amount based settled line, the receipt will be routed.
Quantity Received to Date	> < >= <= =	Enter Value	Evaluates the quantity received to date for any line that is not amount based settled. **Example:** *Receipt: Quantity Received to Date = 0.* If the quantity received to date is zero for any non-amount based settled line, the receipt will be routed.

Field	Operator	Value	Comments
	!=		

5.13 Change Order Document Criteria

These are all prefixed with “Change Order:” and relate to the change order document. These criteria can only be used in change order plans.

Field	Operator	Value	Comments
Date Requested	= !=	Select: "Modified"	**Example:** *Change Order: Date Requested = Modified* If this field has been updated in this version of the order, compared to the previous version, the change order will be routed for approval.
Delivery Address	= !=	Select: "Modified"	**Example:** *Change Order: Delivery Address = Modified* If this field has been updated in this version of the order, compared to the previous version, the change order will be routed for approval.
Delivery Method	= !=	Select: "Modified"	**Example:** *Change Order: Delivery Method = Modified* If this field has been updated in this version of the order, compared to the previous version, the change order will be routed for approval.
Delivery Name	= !=	Select: "Modified"	**Example:** *Change Order: Delivery Name = Modified* If this field has been updated in this version of the order, compared to the previous version, the change order will be routed for approval
External Attachments	= !=	Select: "Modified"	**Example:** *Change Order: External Attachments = Modified* If this field has been updated in this version of the order, compared to the previous version, the change order will be routed for approval.
External Comments	= !=	Select: "Modified"	**Example:** *Change Order: External Comments = Modified* If this field has been updated in this version of the order, compared to the previous version, the change order will be routed for approval.
Financial Tracking Code	= !=	Select: "Modified"	**Example:** *Change Order: Financial Tracking Code = Modified* If this field has been updated in this version of the order, compared to the previous version, the change order will be routed for approval.
FOB Terms	= !=	Select: "Modified"	**Example:** *Change Order: FOB Terms = Modified*

Field	Operator	Value	Comments
			If this field has been updated in this version of the order, compared to the previous version, the change order will be routed for approval.
Freight Terms	= !=	Select: "Modified"	**Example:** *Change Order: Freight Terms = Modified* If this field has been updated in this version of the order, compared to the previous version, the change order will be routed for approval.
Internal Attachments	= !=	Select: "Modified"	**Example:** *Change Order: Internal Attachments = Modified* If this field has been updated in this version of the order, compared to the previous version, the change order will be routed for approval.
Internal Comments	= !=	Select: "Modified"	**Example:** *Change Order: Internal Comments = Modified* If this field has been updated in this version of the order, compared to the previous version, the change order will be routed for approval.
Payment Method	= !=	Select: "Modified"	**Example:** *Change Order: Payment Method = Modified* If this field has been updated in this version of the order, compared to the previous version, the change order will be routed for approval.
Payment Terms	= !=	Select: "Modified"	**Example:** *Change Order: Payment Terms = Modified* If this field has been updated in this version of the order, compared to the previous version, the change order will be routed for approval.

5.14 Invoice Document Criteria

These are all prefixed with “Inv:” and relate to the invoice document. These criteria can only be used in an Invoice Settlement plan.
Note that in addition to these system defined fields, User Defined fields (invoice type) created using Document User Fields may also be available.

Field	Operator	Value	Comments
Attachment Description	Includes Does not include Contains Does not contain Is empty Is not empty Starts with Ends with	Enter a Value	This criterion enables invoices to be routed based on the presence or absence of an invoice attachment and will test (by text value) the description of the attachment. **Example:** *Inv: Attachment Description Contains Dispatch.* If any invoice document has an attachment with a description that contains the text 'Dispatch', this approval step will be triggered.

Field	Operator	Value	Comments
Calculated VAT	> < >= <= = !=	Enter a Value	This criterion relates to the total value that the system has calculated for VAT. It is the sum of Calculated VAT for all lines on the invoice based on the assigned VAT Treatments. Use this criterion to route invoices based on a Calculated VAT amount. **Example:** *Inv: Calculated VAT >= 0.* All invoices that have calculated VAT greater than or equal to £0.00 (i.e. have any value) will be routed for settlement approval.
Invoice Type	= !=	Debit Credit	Used to determine the invoice document type to be selected: debit invoice or credit note. **Example:** *Inv: Invoice type = Debit.* This will ensure that only debit invoices are routed for approval and credit notes are not.
Invoice Origin	= !=	Standard Electronic Manual ERS Externally Processed Order	These criteria are used to determine how an invoice document was originally processed into I.E. (where it originated). **Example:** *Inv: Invoice origin = Manual.* This will select only documents entered as Manual Invoices for approval routing. All other invoices and credit notes – for example those processed and matched to system purchase orders – will by-pass selection.
Invoicer’s e-mail	> < >= <= = != Contains Does not contain Is blank Is not blank Starts with Ends with	Enter a value	This criterion relates to the value present in the invoice user’s email address. **Example:** *Inv: Invoicer’s email contains dsmith.* All invoices processed by this user are selected for settlement routing.
Payment Method	= !=	Invoice Pcard ePcard	These criteria evaluate the payment method used for the invoice. The payment method is selected by default on the order but may be changed during the requisitioning or approval process. Pcard refers to Procurement Card and ePCard refers to GE Capital electronic procurement cards (these are used mainly in North America). **Example:** *Inv: Payment Method = Pcard.* This will ensure any invoice that has the payment method of Procurement Card will be selected for approval.
Settlement Status	= !=	Deactivated; Exception-Full match pending receipt;	The settlement status is the post matching INVOICE SETTLEMENT STATUS. Use these criteria to route invoices based on the results of financial matching or other settlement activity.

Field	Operator	Value	Comments
		Exception-Partial match pending receipt; Exception-order tolerance exceeded; Exception-VAT tolerance exceeded; Force Settled; Freight tolerance exceeded; Invoice suspended due to mismatch at summary level; Mismatch between order and invoice; Processed to accounts payable; Reconciled; Reconciled-pending full invoicing; Remittance received from AP**; Sale tax tolerance exceeded	**Example 1:** *Inv: Settlement status = Exception –order tolerance exceeded.* All invoices that have been matched and have been placed on an exception due to price discrepancies will be selected for settlement approval routing. **Example 2:** *Inv: Settlement status = Exception-Full match pending receipt.* All invoices that have been matched and placed on an exception due to discrepancies between line level receipt quantity and invoice quantity. Note that some settlement statuses cannot be used within the Invoice Settlement Plan: "Received-unprocessed" (this status is only present prior to initial matching). "Returned to invoicer" and "Returned to requisitioner" (these statuses exist outside of approval plan routing). "Invoice requires approval routing" (this is not a settlement status but will display to indicate that an invoice has been sent for approval).
Settlement Status Description	> < >= <= = != Contains Does not contain Is blank Is not blank Starts with Ends with	Enter a Value	The settlement status is the post matching INVOICE SETTLEMENT STATUS. Use this criterion to route invoices based on the results of financial matching or other settlement activity: using any text found in the description of the settlement status. **Example:** *Inv: Settlement Status Description Contains "Exception".* All invoices that have been matched and have been placed on any status containing the word exception, will be selected for settlement approval routing.
Supplier's tax ID	> < >=	Enter a Value	The supplier's tax id is the reference number that appears in the Supplier VAT Number field. Use this criterion to route approval based on the supplier's VAT number.

Field	Operator	Value	Comments
	<= = != Contains Does not contain Is blank Is not blank Starts with Ends with		**Example:** *Inv: Supplier's tax id Is blank.* All invoices that do not have a VAT number entered will be routed for settlement approval.
Total Freight Amount	> < >= <= = !=	Enter a Value	This criterion relates to the value entered into the Delivery (Freight) field on the Invoice and therefore routes invoices based on total delivery charges. **Example:** *Inv: Total freight amount > 75.* All invoices that have a delivery charge greater than £75 will be selected for settlement approval routing.
Total PO Amount *	> < >= <= = !=	Enter a Value	This criterion relates to the purchase order total (excluding any estimated tax or freight entered on the requisition). **Example:** *Inv: Total PO amount <= 1000*. All Documents processed against a purchase order with a value less than or equal to £1,000 will be selected for settlement approval.
Total PO Amount (+ frt. and tax) *	> < >= <= = !=	Enter a Value	This criterion relates to the purchase order total including any estimated tax or freight entered on the requisition. **Example:** *Inv: Total PO amount (+ frt. and tax) > 1000*. All Documents processed against a purchase order with a total including estimated freight and tax amounts greater than £1,000, will be selected for settlement approval.

***** Note that this criterion will not work for an invoice document that does not have a I.E. generated purchase order (e.g. Manual Invoices) and should be used for standard invoices only.

** The remittance interface is not currently supported.

Field	Operator	Value	Comments
Total Supplier VAT Amount	> < >= <= = !=	Enter a Value	This criterion relates to the value entered into the Supplier VAT field on the Invoice and therefore routes invoices based on the invoiced VAT amount. **Example:** *Inv: Total Supplier VAT amount > 75.* All invoices that have invoice VAT greater than £75 will be routed for settlement approval.
Total US Sales Tax Amount	> < >= <=	Enter a Value	This criterion relates to the value entered into the standard Tax field on the Invoice (for example: US Sales Tax). When an alternate UK VAT is implemented this field should not be used.

Field	Operator	Value	Comments
	= !=		
User field – integer and decimal	> < >= <= = !=	Enter a Value	These criteria will appear if an *Invoice Type* Document User Field Definition has been created with Data Type of either ‘Decimal’ or ‘Integer’. The option ***Show in Approval Plan*** must have been selected.
User field - string	> < >= <= = != Contains Does not contain Is blank Is not blank Starts with Ends with	Enter a Value	These criteria will appear if an *Invoice Type* Document User Field Definition has been created with Data Type of ‘String’. The option ***Show in Approval Plan*** must have been selected. **Example:** *Inv: User field Hold Flag = Yes.* In this case, any document containing this hold indicator will trigger this approval step.

6 Using Criteria

It is not always possible to define a workflow rule accurately through the use of a single criterion. For example approval might be required for a supplier only when an order exceeds a certain value. In this circumstance both the 'Supplier name' and 'Total amount' criteria would need to be used together. One or more individual criterion can therefore be used for each workflow task in order to create a more precise rule for document selection.

It is recommended that the criteria used for each task is not OVER complicated. It is possible to use and group (see below) so many criteria that it becomes difficult to manage and administer. In circumstances where combining multiple criteria becomes necessary it is advisable to split the task into two or three separate tasks containing subsequently less complicated combined criteria.

6.1 Multiple Criteria

Sometimes it is necessary to use more than one criterion. When you add rules together they are joined (by default) by simple 'AND' logic which creates a single rule for which **ALL** parts must be valid. In order to avoid multiple criteria failing there will be occasions when you will want to create a set of rules where only **SOME** parts need to be valid. To do this the logic joining some of the criteria must be changed to 'OR'.

6.1.1 All Criteria Valid

For example, three criteria (rules) need to be satisfied for an approval step to be invoked. The following are added to a task with no grouping or change of logic:

a) Supplier Name = Fresh Foods Ltd
b) Total Amount > £200
c) Organisational unit name = 'Catering'

Group[] Ungroup[]

Quick filter:

Showing 1 to 3 of 3 entries

(	Field	Operator	Value	)	Logic	Action
	Order: Supplier name	=	Fresh Foods Ltd		AND	✕
	Doc: Total amount	>	200		AND	✕
	Doc: Organisational unit name	=	Catering			✕
						Add Rule Replace

Showing 1 to 3 of 3 entries

All criteria valid

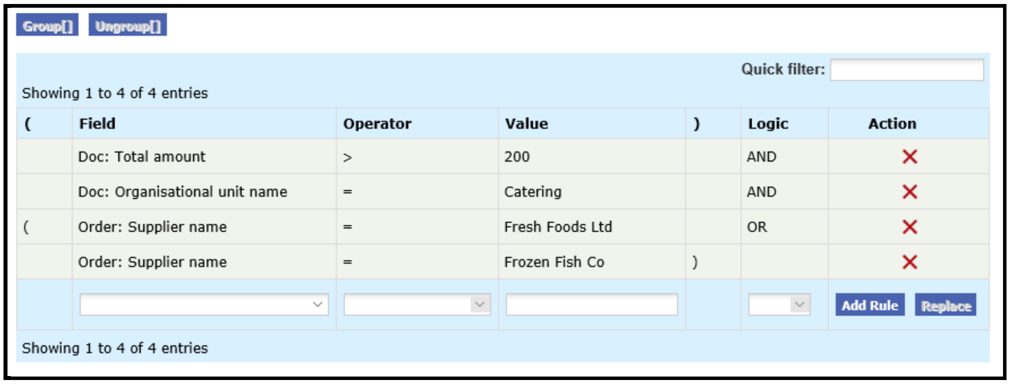
In this example the task will only be invoked if an order is for the supplier Fresh Foods Ltd AND it is over £200 AND it is raised by a user who belongs to the Catering department. If any of those rules are not true, the combined criteria will fail and the document will skip the approval plan step and move onto the next.

6.1.2 Some Criteria Valid

For example, three criteria (rules) need to be satisfied for an approval step to be invoked but there are different possible options for one of the criterion.

The following are added to a task with the supplier names grouped together to allow EITHER one OR the other to be valid:

a) (Supplier Name = Fresh Foods Ltd OR
b) Supplier Name = Frozen Fish Co)
c) Total Amount > £200
d) Organisational unit name = 'Catering'



Group[] Ungroup[]

Quick filter:

Showing 1 to 4 of 4 entries

(	Field	Operator	Value	)	Logic	Action
	Doc: Total amount	>	200		AND	✕
	Doc: Organisational unit name	=	Catering		AND	✕
(	Order: Supplier name	=	Fresh Foods Ltd		OR	✕
	Order: Supplier name	=	Frozen Fish Co	)		✕
						Add Rule Replace

Showing 1 to 4 of 4 entries

Some criteria valid

In this example the task will only be invoked if an order is for EITHER the supplier Fresh Foods Ltd OR the supplier Frozen Fish Co AND it is over £200 AND it is raised by a user who belongs to the Catering organisation. If any of those rules are not true the combined criteria will fail and the document will skip the approval plan step, moving onto the next.

The grouping and change of logic is required in this second example because it is not possible for one order to contain two suppliers and logically a rule that states an order must contain the supplier Fresh Foods Ltd AND Frozen Fish Co will always fail.

6.2 How to Group Criteria

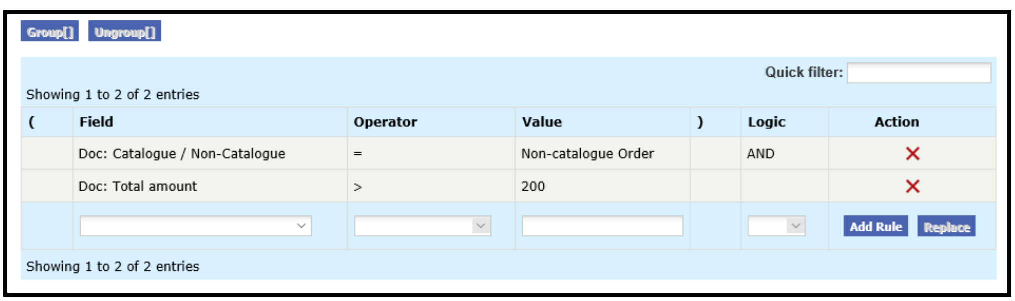
Sometimes it is necessary to **combine** more than one criterion in order to achieve the desired workflow routing and change the logic joining some of the criteria.
To do this you can link each task with either “AND” or “OR”.

a) **AND:** Each task must be valid

b) **OR:** Either task can be valid

6.2.1 Grouping

In the example below the criteria requires that only requisitions greater than £200 AND also contain a non-catalogue item will trigger an approval task.



Group[] Ungroup[]

Quick filter:

Showing 1 to 2 of 2 entries

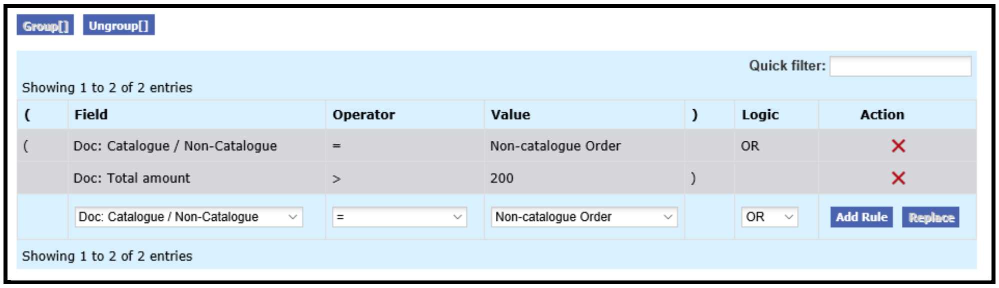
(	Field	Operator	Value	)	Logic	Action
	Doc: Catalogue / Non-Catalogue	=	Non-catalogue Order		AND	✕
	Doc: Total amount	>	200			✕
						Add Rule Replace

Showing 1 to 2 of 2 entries

If we wanted the criteria to require that any requisition which EITHER contains a non-catalogue item OR is greater than £200 to trigger the task, we need to change the logic separating the two criteria from “AND” to “OR”.

In order to achieve this grouping:

1. Select all the criteria you wish to group together by clicking on each criterion;
2. The '**Group[ ]**' button will become available for selection;
3. Click the '**Group[ ]**' button and the criteria will be grouped within brackets and the logic will automatically change from “AND” to “OR”.



It is possible to create groups within groups to achieve your desired approval rules. This may be required where different logic is required within a set of similar criteria. After creating the first group, simply follow the same steps to create the second group. If you are creating groups within groups, it is recommended that you create the “inner most” group first, working “outwards”.

6.2.2 Changing Logic

Once a group has been created, the Logic within the bracketed group can be changed to ‘AND’ if this logic results in the required approval rule.

To change the logic of a line, click on the line within the brackets and select the required Logic in the Logic drop down selection box:

- Line logic can be changed between ‘AND’ and ‘OR’.
- Logic cannot be changed for lines that are not grouped.

6.2.3 Ungrouping

To ungroup and remove the grouping brackets, (the logic will return to “AND”):

1. Click on the first criterion in the group (i.e. where the brackets begin);
2. Click on the last criterion in the group (i.e. where the brackets end);
3. The '**Ungroup[ ]**' button becomes available for selection;
4. Click the '**Ungroup[ ]**' button and the criteria grouping will be removed and the logic will automatically change back to “AND”.

7 Examples

7.1 Example 1 – Non Catalogue and Financial

In our first example we have a simple workflow which consists of two tasks.

The objective of this plan is to:

1. Approve all Non-catalogue items that are submitted by any user, with the exception of one.
2. Approve all documents that exceed the value of £100.

Task 1. The following criteria should be used for the first task:

Field	Operator	Value	Logic
Doc: Catalog/Non Catalog	=	Non-catalog order	AND
Doc: Requisitioner's ID	!=	Alan Buyer	

The first criterion will select all documents that contain a non-catalogue item and the second will ensure anything raised by the user with the id 'Alan Buyer' will NOT be selected. This may be because Alan Buyer is the approver of all non-catalogue items and therefore does not need to approve his own requisitions.

Task 2. In the second task we must use the following criterion:

Field	Operator	Value	Logic
Doc: Total amount	>=	100	

This ensures that if the total value of the document is equal to or greater than 100 (requisition currency) it will be selected.

7.2 Example 2 – Escalation Task

This example shows a slightly more complex configuration in which 4 tasks are used.

Escalation Note.

Days and Hours use the organisation calendar working day definitions. Therefore 1 Day = Number of working hours in each day.

Example: There are 7.5 working hours in one day. Escalation is defined as 24 hours. A requisition submitted at 9.00am on Monday will escalate at 11.30am on Thursday.

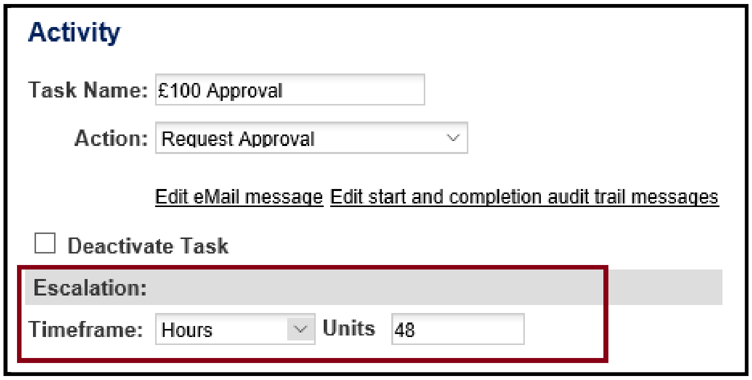
Minutes and Seconds DO NOT use calendar working days but are based on clock running time.

The objective of this plan is to:

1. Approve all Non-catalogue items that are submitted by any user, with the exception of one.
2. Approve all documents that exceed the value of £100.
3. Escalate the financial value step if approval is not received within 48 hours.
4. Approve all Information Technology products.

The first two steps are the same as Example 1, above so we will only look at the formatting of tasks 3 and 4.

Task 3. This is an escalation step for the financial task in step 2. Firstly therefore it is necessary to add an **escalation time frame** to the **Activity** of task 2: see below. PECOS P2P will recognise that this step must be performed within the designated time period and automatically move to the next step in the approval plan when this time period has elapsed.



PECOS P2P will look at the *Organisation Calendar* assigned to the task owner and will not include non-working times in the escalation calculation. Therefore, if you apply a 48 hours timeframe, PECOS P2P will calculate 48 *working hours*, as defined by your organisation calendar. If there are 8 working hours in a day, this task will escalate in 6 days time.

Once the escalation time has been included in the task that requires escalation (in this example – task 2), you must create a task immediately after it to specify the escalation details and task owner. This is Step 3 in our example and the criterion is:

Field	Operator	Value	Logic
Task: Prior task(s) expired	>	0	

PECOS P2P will calculate when the timeframe identified in the previous task (i.e. the task being escalated - task 2) has expired. One ***Expired Task*** will be logged in the database. This escalation task will then activate automatically and send the requisition or order to the owner(s) of this task.

After escalation, the Expired Task log will return to 0. The same criteria (i.e. 'Prior task(s) expired') should therefore be used for all subsequent escalation activities.

Task 4. The final task we see in this workflow is called “IT Approval”. There may be a number of factors that define how Information Technology product is identified on a requisition or purchase order. In the example below we have used both supplier and product criteria.

Using multiple criteria is commonplace and serves to ensure that all documents submitted are captured by the approval task:

Field	Operator	Value	Logic
Line: Category Code	Contains	ATX	OR
Line: Category Code	Contains	43	OR
Order: Supplier name	Contains	Elcom	OR
Order: Supplier name	Contains	PC World	OR
Order: Supplier name	Contains	Dell	

In order to ensure that all requisitions or orders that contain IT product are sent for IT technical approval, the criteria used include fields for Category Codes and Supplier Names.

In this case all IT items should contain the Category Code (e.g. UNSPSC) of either 43 or ATX. However, to ensure nothing slips through the net, additional criteria have been identified detailing the IT supplier's names. In this way, even if IT product is not coded to the correct category code, it will still be routed by virtue of being purchased from an IT supplier and vice versa.

Notice how Grouping has been used for these criteria. It would be incorrect to expect a single document or item to contain **ALL** the above criteria and therefore the logic of ‘AND’ would cause failure. In order for **ANY** of the criteria to be present, all the criteria are grouped together and the logic changed to ‘OR’ (for example an item cannot be purchased from PC World AND Dell because only a single supplier may be attached to each item).

7.3 Example 3 – Master and Sub Plans

Example 3 shows a more complicated approval process that involves the approval of requisitions based on commodity content, where different commodities may need to be approved by different commodity managers.

The Objective of this example is to show how sets of approval tasks can be grouped into Sub Plans which can then be used by one or more Master Plan.

The following table shows the approval steps required within an Approval Process. Each different colour represents a different subset of questions relating to a requisition. These approval subset steps are based on commodity type.

Each colour represents a set of criteria required to satisfy a single approval step and therefore a task is created in a PECOS P2P **Master Plan** for each one. The master plan will consist of five tasks. Four of these tasks: Advertising, IT, Travel and Stationery approval will call a **Sub-Plan**. Each of these Sub-Plans will contain the necessary criteria for the approval of a commodity. A sub plan will therefore be created for approval steps 2 to 5 below.

Advantages of Sub Plans:

- Sub Plans can be used numerous times within other plans and therefore reduces administration time for configuration and maintenance.
- Sub Plans reduce the volume of individual tasks within a Master Plan and therefore increase the clarity and ease of maintenance of Master Plans.

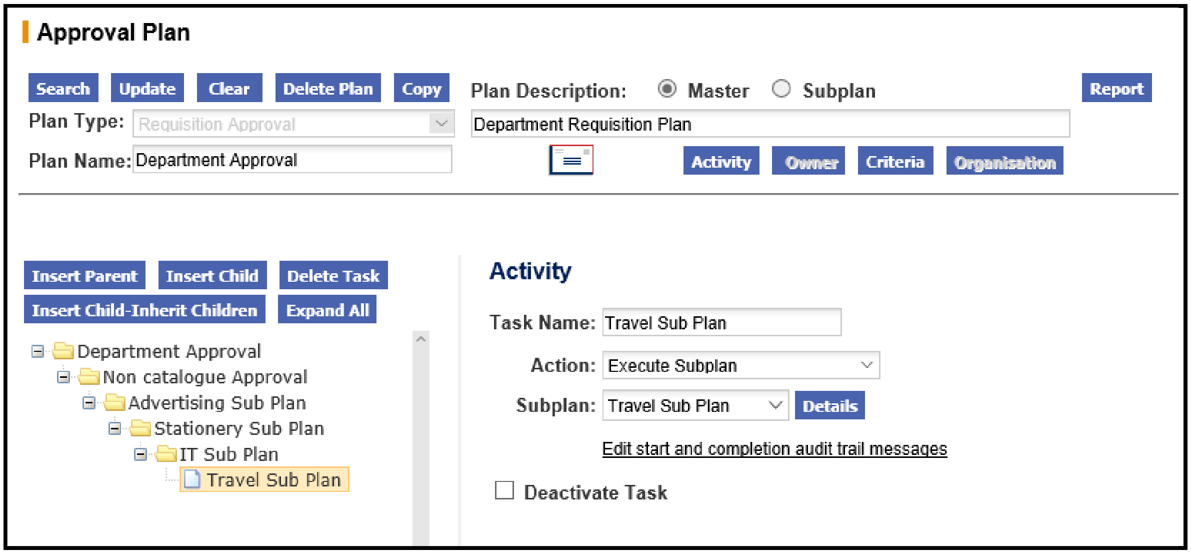
Approval Process Table showing commodity based approval steps:

1. Does the requisition contain a NON-CATALOGUE item?		
2. Does the requisition contain any ADVERTISING items?		
2.1	Is the value between £2.5k & £5k?	
2.1.1		Escalate after 8 hours
2.1.2		Escalate after a further 8 hours
2.2	Is the value between £5K & £10k?	
2.2.1		Escalate after 8 hours
2.2.2		Escalate after a further 8 hours
2.3	Is the value between £10k & £100k?	
2.3.1		Escalate after 8 hours
2.3.2		Escalate after a further 8 hours
2.4	Is the value greater than £100k?	
3. **Does the requisition contain any STATIONERY items?**		
3.1	Is the value between £300 & £5k?	
3.2	Is the value between £5k & £10k?	
3.3	Is the value between £10k & £100k?	
3.4	Is the value greater than £100k	
4. Does the requisition contain any IT items?		
4.1	Is the value between £0 & £500?	
4.2	Is the value between £500 & £5k?	
4.3	Is the value between £5k & £10k?	
4.4	Is the value greater than £10k?	
4.5	Send notification to the Director of IT if over £50k	
5. **Does the requisition contain any TRAVEL items?**		
5.1	Is the value between £300 & £5k?	
5.2	Is the value between £5k & £10k	
5.3	Is the value greater than £10?	
5.4	Send advanced notification to the supplier if Travel = Airfare	

7.3.1 Master Plan

Imagine how long and complex an approval plan would be if it contained all of the above steps. There would be over 30 configurable steps which may need to be repeated for different departments!

Within the Master Plan, just five tasks are created. These are shown below.



Screen showing all Master Plan tasks

The first task is a simple non-catalogue approval activity as shown in previous examples.

The subsequent steps all execute a Sub Plan. The configuration steps involved in Task 2, 'Advertising Sub Plan', are explained below. The same steps are involved for the creation of each of the remaining 3 sub plan tasks.

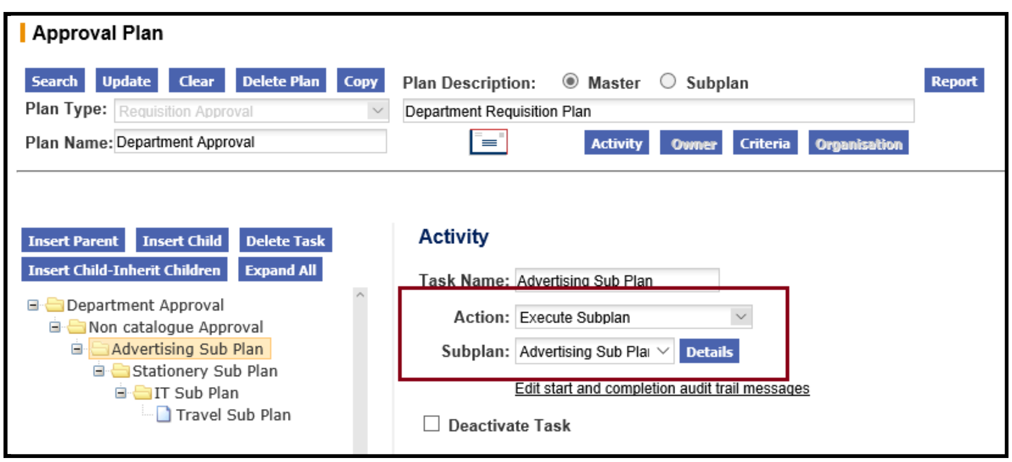
Note: the Sub Plans should be created BEFORE the Master Plan in order for them to be assigned correctly during the creation of the sub plan tasks within the master plan.

7.3.2 Execute Sub Plan Steps

a) Activity

In our example, the second task in our Master Plan requires the execution of the Advertising Sub Plan. On the Activity screen the action is set to 'Execute Subplan'. Once this action is chosen, a drop down box appears allowing us to select from a list of Sub Plans that have been previously created and saved. In this case we choose: 'Advertising' (the name of our advertising sub plan).

Note:
A master plan can only use a sub plan of the same *Plan Type*.
A requisition approval master plan can use only requisition approval sub plans.
Purchase order and change order approval master plans can use either purchase order or change order sub plans.



Screen showing Execute Sub plan Activity selection

b) Owner

A Master Plan step that executes a Sub Plan does not have a Task Owner since all approval activity is defined within the Sub Plan itself. Notice in the image above how the 'Owner' button is greyed out.

c) Criteria

The criteria used to invoke approval through a sub plan may be configured in exactly the same way as an 'Approval' action.

In our example, to ensure that only requisitions that contain advertising expenditure are processed through the Advertising Sub Plan, we set criteria for the master plan task that calls the Advertising Sub plan (above). This is done by using the 'Order: Supplier name' criteria and selecting the value for our advertising supplier.

Group[] Ungroup[]

Quick filter:

Showing 1 to 1 of 1 entries

(	Field	Operator	Value	)	Logic	Action
	Order: Supplier name	Contains	Bakers Advertising Ltd			✕
	Order: Supplier name	Contains	Bakers Advertising Ltd			Add Rule Replace

Showing 1 to 1 of 1 entries

☑ When task does not apply, enforce subsequent applicable tasks

Screen showing criteria for the Advertising Sub Plan Task.

In our example, when a requisition is created that contains items purchased from the supplier Bakers Advertising Ltd, this task will be triggered and the requisition sent to the Advertising Sub Plan. The requisition will complete each step within the sub plan and when finished will return to the next step in the master plan.

Note. If no criterion is set for the 'Execute Subplan' activity within the master plan, **all** requisitions or orders will be sent to the sub plan.

7.3.3 Sub Plan

Sub Plans are created in exactly the same way as Master Plans. Following on from our example above we have defined below the steps involved in the Advertising Sub Plan.

Task 1

The first question asked about Advertising was "Is the requisition value between £2.5K and £5K?" The screenshot below shows us how this criteria would be set up within the Advertising Sub Plan.

Group[] Ungroup[]

Quick filter:

Showing 1 to 2 of 2 entries

(	Field	Operator	Value	)	Logic	Action
	Doc: Total amount	>	2500		AND	✕
	Doc: Total amount	<=	5000			✕
						Add Rule Replace

Showing 1 to 2 of 2 entries

☑ When task does not apply, enforce subsequent applicable tasks

Screen showing Advertising Task 1 Criteria

Note how two document total criteria provide a range into which the requisition must fall in order for this approval step to be invoked. The default logic when two or more criteria are added is 'AND'. If both fields are to be true no grouping is required.

There is also an escalation for this task and therefore the Activity will have an Escalation time frame of 8 hours.

Task 2

The second task is an escalation. As we saw in Example 2 PECOS P2P will calculate when the time frame defined in Task 1 (i.e. 8 hours) has expired and will move the requisition forwards to this task, which will be invoked automatically by the insertion of the *'Task: Prior task(s) expired > 0'* criteria.

This task requires a further escalation if approval is not completed by the owner of the first escalation within 8 working hours. Task 2 therefore will also require an Escalation time frame of 8 hours set in the Activity.

Task 3

Task 3 is also an escalation task and will use the same criteria as Task 2 but does not need to have its own escalation time frame. This second escalation step is not itself escalated: the requisition will remain with the task owner until it is approved.

Subsequent Tasks

The Advertising Sub Plan configuration continues as tasks 1-3 with each task identifying different requisition values.

Subsequent Sub plans

The subsequent 3 sub plans for Stationery, IT and Travel are configured in the same way as the Advertising sub plan and called by the Master Plan.

Requisitions will follow through the Master Plan and be sent to a sub plan if the criterion within the master plan dictates that this should be the case. If a requisition does not contain data requiring it to be sent to the first sub plan it will remain in the master plan and move onto the second sub plan task where once again the master plan criteria will be applied. This process will continue with the requisition only being sent to a sub plan if the master plan criterion fully applies to it. Once all the steps in the Master Plan have been completed and any Sub Plans processed, an Order will be created and sent to the supplier.

7.4 Example 4 – Change Order Criteria

When a Change Order is raised in PECOS P2P it is approved using a Change Order Type approval plan. Change orders DO NOT route through an original Requisition or Purchase Order Type plan.

The criteria used in a Change Order plan can be the same as those used in an original Requisition or PO plan. Additionally you can route based on the changes that have been made since the original or a previous Order was submitted to the supplier. You can measure these changes either as a value or as a percentage by using one of these four criteria:

- Order: Amount variance % - previous
- Order: Amount variance % - original
- Order: Amount variance – original
- Order: Amount variance – previous

The objective of this example is simply to approve all change orders that have a total value greater than 5% of the original order total value.

A Change Order plan will need to be created that contains a single task with the following criteria:

Field	Operator	Value	Logic
Order: Amount variance % - Original	>	5	

In this example any Change Order where there is greater than a 5% increase in value to the original Order will be triggered for approval routing.

Notice that if we wanted to route orders that had increased by 5% or more the Operator would need to be: >=.

Note that only change orders *that are re-transmitted to the supplier* are sent for approval through a change order plan.

7.5 Example 5 – By-Pass Approval Steps

It is common for certain user’s requisitions and orders to not require approval. Such a situation will arise when approvers are also the creators of requisitions and there is a need to ‘By-Pass’ certain approval steps in a plan. These By-pass steps ensure that approvers avoid self-approval and senior users do not have their requisitions sent for approval by a subordinate.

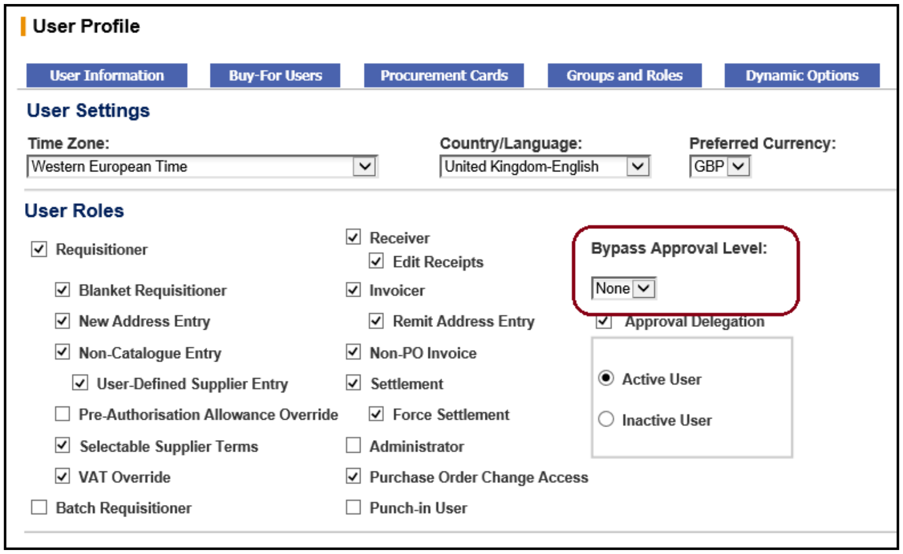
The objective of this example is:

a) Ensure Supervisors, who have an approval limit of £500 do not approve their own requisitions.
b) Ensure Senior Managers, who have an approval limit of £5,000 do not have their requisitions sent to a subordinate supervisor for approval and do not have them routed to themselves for approval.

It is necessary to utilise the User Profile setting: Bypass Approval Level and use these assignments with the approval plan criteria: ‘Doc: Requester’s approval level’.

Step 1

Navigate to the User Profile screen and assign an appropriate Bypass Approval Level to your supervisors and Senior Managers.



User Profile Screen showing Bypass Approval Level selection

The Bypass Levels are pre-defined in the PECOS P2P database and are numerical values. You must decide which values to associate with each level of seniority within your organisation.

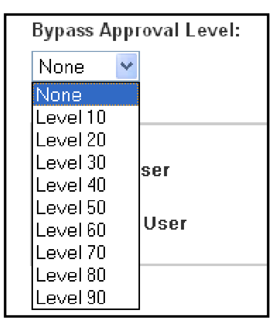
For example, '10' could be the lowest (e.g. supervisor) and '90' the highest (e.g. chief executive).

Alternatively these levels can be associated with a hierarchy of approval values that are associated with approvers: where 10 = £500, 20 = £1,000, 30 = £2,000 etc.

All users have a default of ‘None’ which numerically is 0.

In our example we are going to assign:

a) Supervisors = Level 10
b) Senior Managers = Level 20

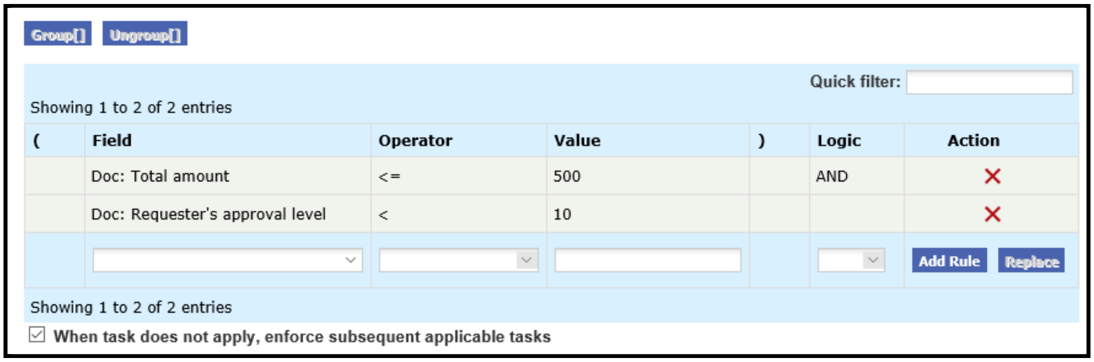


Screen showing an example of available Bypass Levels

Step 2

Our supervisory approval step must contain appropriate criteria to ensure all supervisor and senior manager requisitions are bypassed.

An example of the supervisory step in the plan is shown below.



Screen showing supervisory approval criteria

The following criterion has been used in conjunction with the financial criteria:

Field	Operator	Value	Logic
Doc: Requester's approval level	<	10	

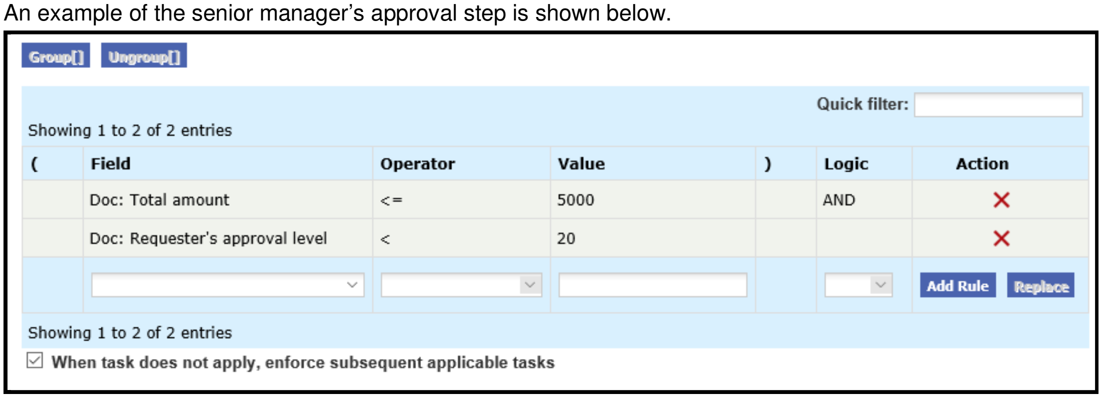
This criterion will ensure that all requisitions submitted by supervisors will by-pass this approval step. This is because supervisors are assigned the Bypass approval level in their user profile of 10: i.e. 10 is NOT less than 10 (.ie. it is =10). Thus both criteria together become invalid.

Furthermore, all requisitions submitted by senior managers will also by-pass this approval step. This is because their user profile Bypass approval level assignment is 20 which is also not less than 10. Thus both criteria together become invalid.

Step 3

Finally, our senior manager approval step must contain appropriate criteria to ensure all senior managers' requisitions are bypassed but supervisor's requisitions are correctly approved.

An example of the senior manager's approval step is shown below.



Screen showing senior manager approval criteria

The following criterion has been used in conjunction with the financial criteria:

Field	Operator	Value	Logic
Doc: Requester's approval level	<	20	

This criterion will ensure that all requisitions submitted by senior managers will by-pass this approval step. This is because senior managers are assigned the Bypass approval level in their user profile of 20: i.e. 20 is NOT less than 20 (.ie. it is =20). Thus both criteria together become invalid.

Furthermore, all requisitions submitted by supervisors will not by-pass this approval step. This is because their user profile Bypass approval level assignment is 10 which is less than 20. Thus both criteria are valid.

7.6 Example 6 – Approver's Approval Limits

Occasionally an approver who fills an approval role may be limited in value to what they can approve and therefore have an **Approval Limit**.

For example, the approval plan and approval roles are generic across the entire organisation and it is deemed unnecessary to create a new role or a new approval step to accommodate an exceptional approver's limit that is lower than other members of staff filling the same role. It may be inconvenient or impractical to use By-Pass Approval levels.

A further example is where an escalation step promotes a document for approval to a subordinate. If, for example, an approval step filled by departmental managers is escalated, it is not always possible to populate the escalation task owner roles with equally or more senior managers. Where a document is therefore escalated to a subordinate (say a supervisor) it is likely that their financial approval limit is lower than the financial limit of the approver from whom the approval has been escalated. We will use this in the example below.

Example: Documents up to a value of £1,000 are sent for approval to the role ‘Approver 1’ which is filled by

The objective of this example is:

a) All documents up to a value of £1,000 are approved by Department Managers within one day.
b) All escalated documents are approved by Department Supervisors.
c) All documents over £1,000 are approved by the Director of Finance.
d) Ensure documents over £500 that are escalated to subordinate approvers are adequately approved and sent to the Director of Finance.

Departmental Managers who have financial approval limits of £1,000. This task is escalated after one day to the role ‘Approver 1 Escalation’. The second approval step requires all documents over £1,000 to be approved by the director of finance.

Occasionally the role ‘Approver 1 Escalation’ is filled by a Departmental Supervisors who only have financial approval limits of £500. As a consequence it has been reported that escalated documents between the value of £500 and £1,000 have been inappropriately approved only by supervisors. It is decided that when this scenario occurs, such documents should be sent to the director of finance.

Step 1

The first approval step is for simple financial approval requiring all documents up to £1,000 to be approved by department managers who fill the roles of “Approver 1”. The following criterion will be used:

Field	Operator	Value	Logic
Doc: Total amount	<=	1000	

This criterion will ensure that all documents up to the value of £1,000 will be included in the approval step.

In addition, this task will have an escalation time frame: Escalated after one day.

Step 2

The second approval step will be the escalation task owned by Departmental Supervisors (filling the role of “Approver 1 Escalation”) to be invoked when the first step expires. The following criterion will be used:

Field	Operator	Value	Logic
Task: Prior task(s) expired	>	0	

This criterion will ensure that if the previous task has expired all documents will be included in this approval step. If therefore the previous task is not approved by departmental managers within one day, PECOS will log the task as expired and move the document forwards in the approval plan (i.e. onto step 2). This step becomes valid because prior tasks that have expired = 1, which IS greater than 0. If the department manager does approve within one day, PECOS P2P will move the document forwards in the approval plan but not log an expired task. This step will therefore fail because prior tasks that have expired are equal to 0, NOT greater than 0.

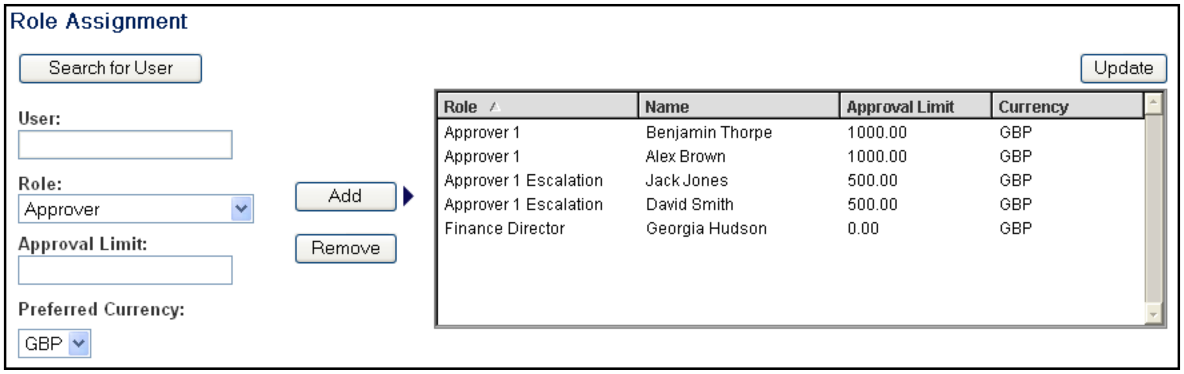
Step 3

The third task must ensure that all documents over £1,000 and any escalated document between £500 and £1,000 that has been approved by a department supervisor, is sent to the Director of Finance. In this task we can utilise the approver’s role based approval level and use the task based criterion called ‘Prior approver’s approval limit’ to capture the second rule for previous supervisor approved documents. The following criteria will be used:

Field	Operator	Value	Logic
Doc: Total amount	>	1000	OR
Task: Prior approver’s approval limit	<	Doc: Total amount	

In addition, the supervisors who fill the role of “Approver 1 Escalation” must be given an approval limit in the Role Assignment screen of the Approval Rule Group. These approval limits are used by the criterion ‘Task: Prior approver’s approval limit’.

These criteria must be grouped together in order for the logic to be changed to OR. If the logic remained as AND, the only documents that would be approved by the Director of Finance would be those that were over £1,000 *and were* *also* approved previously by an approver with a limit less than the document total (approvers filling the role of approver 1 escalation).



Screen showing approval limits for department supervisor

The scenario has identified the issue whereby documents residing with a department manager for approval, up to the value of £1,000 might be escalated to a supervisor. As we have established, a supervisor is only permitted to approve documents up the value of £500 and therefore may, on occasions, approve an escalated document valued between £500 and £1,000 outside of their financial permission.

The use of the field: 'Task: Prior approver's approval limit' < 'Doc total amount' will ensure that any document previously approved by a department supervisor will be approved by the director of finance if it is over £500. This is achieved because the department supervisors are assigned an approval limit of £500 (in the role assignment screen of the approval rule group). Note that the value used for this field is fixed as the document amount ('Doc: Total amount').

8 Bad Examples

The following are examples of where task criterion has been set up wrongly and therefore approval routing does not work as expected.

The object of this example is to:

a) Define the correct values to use when approval routing uses supplier name criteria.

b) To highlight the difference between 'Includes' and 'Contains'.

8.1 Supplier Name Does Not Work

In this example the criterion used is (or may have been):

Field	Operator	Value	Logic
Order: Supplier Name	=	Dell	
Order: Supplier Name	Includes	Dell	

However, in the supplier profile, the supplier's name is actually **Dell Microsystems Ltd**. Therefore any of the 3 following options should have been used instead:

Field	Operator	Value	Logic
Order: Supplier Name	=	Dell Microsystems Ltd	
Order: Supplier Name	Includes	Dell Microsystems Ltd	
Order: Supplier Name	Contains	Dell	

When the operator 'Includes' is used, the value must be an exact match (i.e. exactly as it appears in the supplier profile). To route on *any part of* a supplier name, the operator 'Contains' should be used.

8.2 Approver Role Assignment

Where an approver (i.e. user) is not assigned to a Role that is used in an approval plan within the Role Assignment of the Approval Rule Group, PECOS P2P will not know who to route the requisition or order to. In such cases the plan will fail and the requisition or order sent to the system administrator.

> The object of this example is:
>
> An approval step will not always be necessary or will be specific to limited users or departments. The role owner of this indeterminate step may not therefore be defined within some user's approval rule group.

If you want PECOS P2P to skip this approval step because some Approval Rule Groups do not assign a user to a Role (i.e. the step may be relevant in certain departments but not others), the criteria shown below should be added to the relevant task:

Field	Operator	Value	Logic
Task: Owner Role Assignment	Is not empty		