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| Test Script  SAP S/4HANA - 18-09-20 | public |
| Propose Resolution for Invoice Payment Block (2XX) |

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# Purpose

When a supplier has a quantity blocking reason at the item level, the cash discount may be at risk. Utilizing the predictive modeling integration, you can predict the goods receipt delay and thus meet the cash discounts.

This document provides a detailed procedure for testing this scope item after solution activation, reflecting the predefined scope of the solution. Each process step, report, or item is covered in its own section, providing the system interactions (test steps) in a table view. Steps that are not in scope of the process but are needed for testing are marked accordingly. Project-specific steps must be added.

# Prerequisites

This section summarizes all the prerequisites for conducting the test in terms of systems, users, master data, organizational data, other test data and business conditions.

## System Access

The test should be conducted with the following system:

|  |  |
| --- | --- |
| System | Details |
| System | Accessible via the SAP Fiori launchpad. Your system administrator provides you with the URL to access the various apps assigned to your role. |

## Roles

Assign the following business roles to your individual test users. Alternatively, if available, you can create business roles using the following spaces with pages and predefined apps for the SAP Fiori launchpad and assign the business roles to your individual test users.

Note These roles or spaces are examples provided by SAP. You can use them as templates to create your own roles or spaces.

For more information about business roles, refer to Assigning business roles to a user in the [Administration Guide to Implementation of SAP S/4HANA with SAP Best Practices](https://help.sap.com/viewer/S4HANA2020_AdminGuide) .

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name (Role) | ID (Role) | Description (Space) | ID (Space) | Log On |
| Analytics Specialist | SAP\_BR\_ANALYTICS\_SPECIALIST |  |  |  |
| Configuration Expert - Business Process Configuration | SAP\_BR\_BPC\_EXPERT |  |  |  |
| Accounts Payable Accountant - Procurement | SAP\_BR\_AP\_ACCOUNTANT\_PROCUREMT |  |  |  |

## Business Conditions

Before this scope item can be tested, the following business conditions must be met.

Below scope item should be installed and activated.

|  |  |
| --- | --- |
| Scope Item ID | Business Condition |
| Procurement of Direct Materials (J45) | You have completed the step described in this test script. |

## Preliminary Steps

### Create Test Data

The following two sets of actions should be taken in system in order to train Predictive Model successfully:

Create test data which represents Timing of goods receipt for cash discount item is not on time:

1. Create 20 supplier invoices with cash discount payment term, and has item with Quantity blocking reason with referenced purchase order. Make sure cash discount timeline is earlier than goods receipt, this can be achieved by adjust Baseline Payment Dte and Payment Terms.
2. Create goods receipt for the purchase order.
3. Release the 20 blocked invoices.

Create test data which represents Timing of goods receipt for cash discount item is on time:

1. Create 20 supplier invoices with cash discount payment term, and has item with Quantity blocking reason with referenced purchase order. Make sure cash discount timeline is earlier than goods receipt, this can be achieved by adjust Baseline Payment Dte and Payment Terms.
2. Create goods receipt for the purchase order.
3. Release the 20 blocked invoices.

### Check Control of Scenarios/Scope Items Activation

Procedure

1. Access the activity using the following navigation option:

|  |  |
| --- | --- |
| SAP IMG Path | SPRO > Materials Management > Logistics Invoice Verification > Incoming Invoice > Activate Scenarios for Invoice Verification |
| Transaction code | SM30 V\_T169SM |

1. For Scenario Machine learning for quantity block, make sure Active checkbox is chosen.

Note:

If CoCd is blank, and Active is chosen, Machine learning for quantity block is activated for all company codes in system.

You can choose Change -> Display, and choose New Entries to specify company code for this scenario.

# Overview Table

This scope item consists of several process steps that are listed in the following table :

If your system administrator has enabled spaces and pages on the SAP Fiori launchpad, the homepage will only contain the essential apps for performing the typical tasks of a business role.

You can find all other apps not included on the homepage using the search bar.

If you want to personalize the homepage and include the hidden apps, navigate to your user profile and choose Settings > App Finder .

|  |  |  |  |
| --- | --- | --- | --- |
| Process Step, Report, or Item | Business Role | Transaction / App | Expected Results |
| [Train Predictive Model](#unique_9) [page ] 8 | Analytics Specialist | Predictive Models (F1837) | The Predictive Models app is starting. |
| [Models](#unique_10) [page ] 9 |  |  |  |
| [Model Status](#unique_11) [page ] 9 |  |  |  |
| [Set a Model Version to Active](#unique_12) [page ] 10 | Analytics Specialist | Predictive Models (F1837) | The Model version status changes to Active. |
| [Retrain a Model Version](#unique_13) [page ] 11 | Analytics Specialist | Predictive Models (F1837) | The Retrain Model window displays. |
| [Delete a Model Version](#unique_14) [page ] 12 | Analytics Specialist | Predictive Models (F1837) | The Model version is now deleted from the model list. |
| [Model Report Overview](#unique_15) [page ] 13 |  |  |  |
| [Model Quality](#unique_16) [page ] 13 |  |  |  |
| [Check Supplier Invoice with Payment Block](#unique_17) [page ] 14 | Accounts Payable Accountant - Procurement | Supplier Invoices List (F1060A) | Quantity blocked invoice item is predicted whether goods receipt will be in time to meet cash discount timeline. |

# Test Procedures

This section describes test procedures for each process step that belongs to this scope item.

## Train Predictive Model

Test Administration

Customer project: Fill in the project-specific parts.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Case ID | <X.XX> | Tester Name |  | Testing Date | Enter a test date. |
| Business Role(s) |  | | | | |
| Responsibility | <State the Service Provider, Customer or Joint Service Provider and Customer> | | | Duration | Enter a duration. |

Purpose

SAP S/4HANA is shipped with a preconfigured Predictive Scenario to enable customer to predict whether goods receipt can be done in time to meet cash discount timeline. As each predictive model is specific to customer, the model must first be trained on customer's historical data before it can start to produce predictive scores.

The Modeling Context defines the actual instances of the Predictive Models. It allows you to define a mechanism to get predictions from an appropriate Model to which the data is applied.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instruction | Expected Result | Pass / Fail / Comment |
| 1 | Log on | Log on to the SAP Fiori launchpad as Analytics Specialist. | The SAP Fiori launchpad displays. |  |
| 2 | Access the SAP Fiori app | Open Predictive Models (F1837). | The Predictive Models (Original) screen displays. |  |
| 3 | Choose Predictive Scenario | Choose Predictive Scenario MMIV\_INVC\_QTY\_BLCK. | The available model named DEFAULT is displayed. |  |
| 4 | Train Model | Choose the available model DEFAULT and choose Train, and make the following entry:  Model Version Description: <enter a description>  choose Train. | The model version is added to the model list with the status In Training. |  |
| 5 | Check Model Version | Choose the model item DEFAULT to display Model Versions. | The model version created above is added to list with the status Training. |  |

### Models

A Model describes as well as explains the relationships between the dataset and the target to allow predictions. One Modeling Context can contain several model versions, but only one version can be active at a time. The active version is the one used to do the predictions.

#### Model Status

A model can have several versions and each version can have a different status. Depending on the status of your model version, different actions are possible.

|  |  |  |
| --- | --- | --- |
| Model Status | Meaning | Possible Action |
| Training Failed | An error occurred during the training and the model version is unusable | A model version with this status can only be deleted |
| Ready | The training is successfully completed | A model with this status can be deleted, set to active or retrained, if necessary |
| Active | The modal is activated | A model with this status can be deactivated, retrained or deleted. |

#### Set a Model Version to Active

Test Administration

Customer project: Fill in the project-specific parts.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Case ID | <X.XX> | Tester Name |  | Testing Date | Enter a test date. |
| Business Role(s) |  | | | | |
| Responsibility | <State the Service Provider, Customer or Joint Service Provider and Customer> | | | Duration | Enter a duration. |

Purpose

The active Model version is the version that is used to generate predictions when the Modeling Context is queried.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instruction | Expected Result | Pass / Fail / Comment |
| 1 | Log on | Log on to the SAP Fiori launchpad as Analytics Specialist. | The SAP Fiori launchpad displays. |  |
| 2 | Access the SAP Fiori app | Open Predictive Models (F1837). | The Predictive Models (Original) screen displays. |  |
| 3 | Choose Predictive Scenario | Choose Predictive Scenario MMIV\_INVC\_QTY\_BLCK. | The available model named DEFAULT is displayed. |  |
| 4 | Activate the Model Version | Choose the existing model Default, the model versions are listed.  Choose any model version which is in Ready status and choose Activate. | The model version is activated. |  |

#### Retrain a Model Version

Test Administration

Customer project: Fill in the project-specific parts.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Case ID | <X.XX> | Tester Name |  | Testing Date | Enter a test date. |
| Business Role(s) |  | | | | |
| Responsibility | <State the Service Provider, Customer or Joint Service Provider and Customer> | | | Duration | Enter a duration. |

Purpose

You can retrain a Model version either with the same filters by adding or removing filters to refine your predictions. When you retrain a Model version, you are able to change the name and description.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instruction | Expected Result | Pass / Fail / Comment |
| 1 | Log on | Log on to the SAP Fiori launchpad as a Analytics Specialist. | The SAP Fiori launchpad displays. |  |
| 2 | Access the SAP Fiori app | Open Predictive Models (F1837). | The Predictive Models (Original) screen displays. |  |
| 3 | Select the Predictive Scenario | Choose the Predictive Scenario:  MMIV\_INVC\_QTY\_BLCK. | The available model named DEFAULT is displayed. |  |
| 4 | Retrain the Model Version | Choose the existing model Default, the model versions are listed.  Select model with Ready or Active status and choose Retrain. Update model version description if need, then choose Train. | The model version is retrained. |  |

#### Delete a Model Version

Test Administration

Customer project: Fill in the project-specific parts.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Case ID | <X.XX> | Tester Name |  | Testing Date | Enter a test date. |
| Business Role(s) |  | | | | |
| Responsibility | <State the Service Provider, Customer or Joint Service Provider and Customer> | | | Duration | Enter a duration. |

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instruction | Expected Result | Pass / Fail / Comment |
| 1 | Log on | Log on to the SAP Fiori launchpad as Analytics Specialist. | The SAP Fiori launchpad displays. |  |
| 2 | Access the SAP Fiori app | Open Predictive Models (F1837). | The Predictive Models (Original) screen displays. |  |
| 3 | Select Predictive Scenario | Choose the Predictive Scenario  MMIV\_INVC\_QTY\_BLCK. | The available model named DEFAULT is displayed. |  |
| 4 | Delete Model Version | Choose the existing model Default, the model versions are listed.  Choose a model version and choose Delete. | The model version is deleted. |  |

### Model Report Overview

Choose one model version to go to Model Version Report page. The Report Overview gives you a summary of your Model characteristics and status:

|  |  |
| --- | --- |
| Name | Description |
| Quality | The quality of your Model version. |
| Model Status | This indicates if the Model version is active or not. |
| Training Record Count | Volume of the training data set record. |
| Description | A short description of the Predictive Scenario. |
| Created At | The date when the Modeling Context was created. |

### Model Quality

Once you have created your Model version, you must evaluate the quality of the model to decide if it applies to your data. Choose a model version to display generic infor-mation of the version, for example Quality information and Model Performance.

You can analyze the provided Quality Information responses in relation to your business issue, then apply it to new datasets. Alternatively you can modify the Modeling Contexts to better suite your dataset, business issue, and then generate new, powerful models.

Model performance of a model version is evaluated by using the predictive power KI and the predictive confidence KR indicators.

The predictive power is an indicator of the quality of the predictive model which allows you to evaluate the strength of the model, for example its capacity to explain the target variable when applied to the training dataset.

The prediction confidence defines the degree of robustness of the model. It defines the model's capacity to achieve the same explanatory strength when applied to a new dataset. The degree of robustness corresponds to the predictive power of the model applied to an application dataset.

Predictive Model calculates the predictive power, prediction confidence and evaluates the quality of your model using a quality range with star icon from 1 to 5. Based on the quality indicator for your model, you can decide whether to use your model version as is or not.

## Check Supplier Invoice with Payment Block

Test Administration

Customer project: Fill in the project-specific parts.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Case ID | <X.XX> | Tester Name |  | Testing Date | Enter a test date. |
| Business Role(s) |  | | | | |
| Responsibility | <State the Service Provider, Customer or Joint Service Provider and Customer> | | | Duration | Enter a duration. |

Purpose

You have implemented the app Supplier Invoices List (F1060A). With the following steps, you can test if the app Supplier Invoices List (F1060A) is running correctly.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instruction | Expected Result | Pass / Fail / Comment |
| 1 | Log On | Log onto the SAP Fiori Launchpad as an Accounts Payable Accountant - Procurement. | The SAP Fiori Launchpad displays. |  |
| 2 | Access the Fiori App | Open Supplier Invoices List (F1060A). | The Supplier Invoices List (Original) screen displays. |  |
| 3 | Search for Blocked Supplier Invoices | On the Supplier Invoice List screen:  Blocked for Payment: Yes  Choose Go.  If the filter is not displayed, choose Adapt Filters to search and enable it. | Blocked Supplier Invoice is listed. |  |
| 4 | Predicts whether goods receipt in time for quantity blocked invoice item | Choose the invoice with cash discount payment term to display supplier invoice detail.  After choose Blocked for Payment link, Blocked Invoice Items section shows blocked invoice item with blocking reason.  For items blocked by Quantity, Timing of Goods Receipt for CD column will predict whether goods receipt will be in time to meet cash discount timeline.  Probably On Time predicts goods receipt will be in time to meet cash discount timeline.  Probably Not On Time predicts goods receipt will not be in time to meet cash discount timeline.  Not Applicable: means the invoice item is not applicable for Timing of Goods Receipt prediction.  If control of scenarios/scope items is not activated for this company code, Timing of Goods Receipt for CD column will not be shown. | Quantity blocked invoice item is predicted whether goods receipt will be in time to meet cash discount timeline. |  |

Typographic Conventions

|  |  |
| --- | --- |
| Type Style | Description |
| Example | Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options.  Textual cross-references to other documents. |
| Example | Emphasized words or expressions. |
| EXAMPLE | Technical names of system objects. These include report names, program names, transaction codes, table names, and key concepts of a programming language when they are surrounded by body text, for example, SELECT and INCLUDE. |
| Example | Output on the screen. This includes file and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools. |
| Example | Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation. |
| <Example> | Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system. |
| EXAMPLE | Keys on the keyboard, for example, F2 or ENTER. |

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