

# SAP Fiori – Cache Management | SAP Blogs

Thursday, February 25, 2021 8:28 AM

Clipped from: <https://blogs.sap.com/2015/06/16/sap-fiori-cache-management/>

This is a collaborative document to share lessons learned contents for SAP Fiori Cache Management topics in the community [SAP Fiori](#).

Please feel free to insert the link of your document or blog by selecting the edit button from Actions.

## 1. Manual Cache clearing is not required.

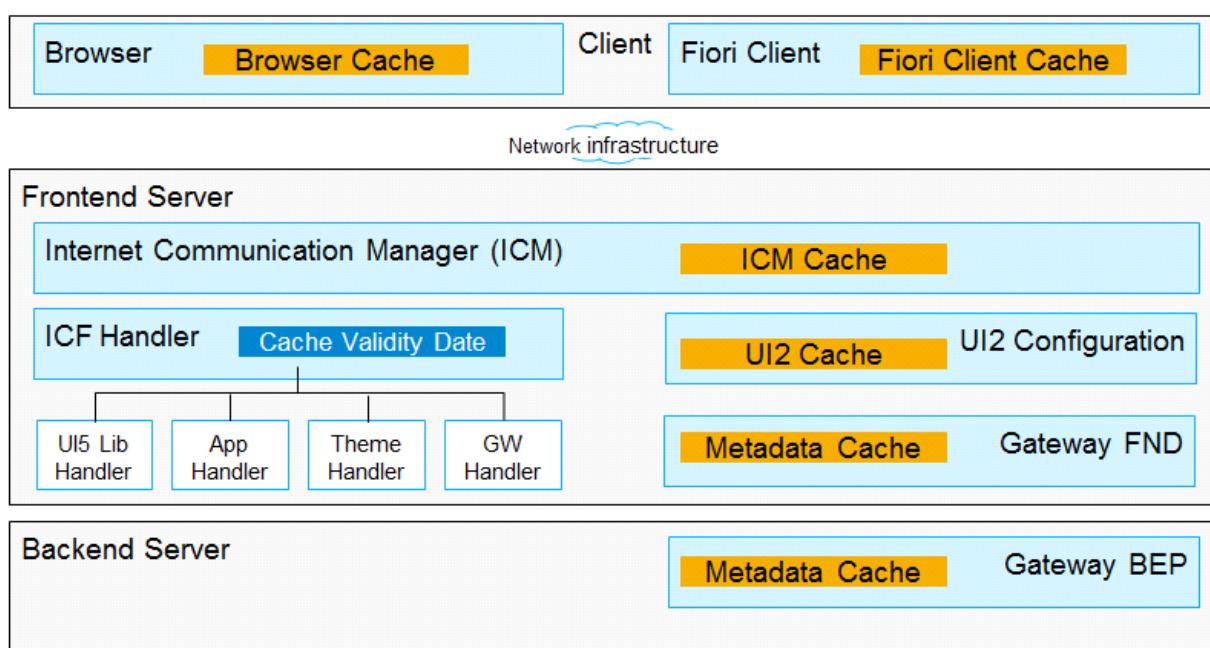
If you do discover a bug kindly create an incident. SAP Support Team will investigate your issue. It might be that SAP has to provide a note containing the fix, the important thing though is that SAP can reproduce your issue so that SAP can localize the error. **To this end please do not invalidate the UI2 Caches!** By this collaboration SAP is certain of eliminating all cache errors and reducing customer TCO further. Thank you very much.

## [2362875](#) – UI2 Caches and their synchronization with the database

## 2. Understanding the cache management

Caches are located in each layer (Client, Frontend Server and Backend Server)

### SAP Fiori - Cache management



## 3. Client

- **Browser** – No action is required. Please setup the **Cache Buster**.
  - If clearing caches is required, you can manually clear the browser cache.
- **Fiori Client** – No action is required.
  - When an app is updated on the server, Fiori Client automatically purges the existing cache and pulls the update from the server.
  - If clearing caches is required, you can manually clear the cache in the Setting -> Clear Cache. <http://help.sap.com/fiori-client>

#### **4. Frontend Server**

#### **5. Backend Server**

- **Metadata**

- Transaction: **/IWBEPCACHE\_CLEANUP**. This clears the OData metadata cache.

# Cache Management

Thursday, October 18, 2018 5:03 PM

After a product reimport, if any caching issues are suspected, perform the following actions on the NetWeaver Gateway system to clear the cache:

- o Call transaction code /IWFND/CACHE\_CLEANUP
- o Call transaction code SE38 or SA38 to execute program /UI2/DELETE\_CACHE\_AFTER\_IMP

The following SAP standard programs should be run from se38 after Gateway/ui5 upgrade transports have been applied in the system.

1. /UI2/DELETE\_CACHE

Enter '\*' in the Username field and select both the checkboxes as shown below:

2. /UI2/CHIP\_SYNCHRONIZE\_CACHE

Run the report. No specific input selection is required.

3. /UI2/DELETE\_CACHE\_AFTER\_IMP

Run the report. The output of this report will provide the cache entries deleted after import.

4. /UI2/INVALIDATE\_CLIENT\_CACHES

Select all users when running this report.

5. /UI2/INVALIDATE\_GLOBAL\_CACHES

Select 'Execution mode' when running this report.

6. /UI5/APP\_INDEX\_CALCULATE

Use this report to calculate the SAPUI5 application index for SAPUI5 repositories which can contain SAPUI5 applications, components, or libraries. Select "All SAPUI5 Repositories" and run this report.

Execution of this report takes approximately 30-40 seconds. Following is an example of the output of this report from our system.

/IWFND/CACHE\_CLEANUP

/WBEP/CACHE\_CLEANUP - Clean model cache -> had to do it for buttons refresh

# Dolphin UI5 web tech doc

Friday, December 1, 2017 3:15 PM



Dolphin\_PT  
S-AP\_We...



# **Implementation & Maintenance Guide**

## **Process Tracking System (PTS) for SAP Accounts Payable**

### **Advanced Approvals**

#### **Release 7 Q1/2 2017**

Dolphin Enterprise Solutions Corporation  
(dba Dolphin)

Document Release Date: 10/19/2017

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## 1 Overview

The core functionality provided by the Process Tracking System (PTS-AP) Advanced Approvals includes Web Approvals, Simple Email, optional Check/Payment Request and optional Expense Report Add-ons. Advanced Approvals are offered with two different web interfaces; NetWeaver Gateway and Classic WebDynpro on NetWeaver Java. This document provides the details of the installation and configuration steps necessary for the successful deployment of PTS-AP Advanced Approvals.



## 2 Delivered Objects

This section describes the objects included with the Advanced Approvals add-on solution. The basis and DBA groups in your IT organization may use this information for routine maintenance operations.

### 2.1 ECC Objects

View package /DOL/APWEB in transaction SE80 to see the objects included with the Advanced Approvals add-on solution.

The screenshot shows the SAP Object Navigator interface. At the top, there are buttons for back, forward, search, and edit object. Below that is a list of system modules: MIME Repository, Repository Browser, Repository Information System, Tag Browser, and Transport Organizer. A dropdown menu shows 'Package' selected, and the path '/DOL/APWEB' is entered. Below this is a toolbar with various icons. The main area is a table with two columns: 'Object Name' and 'Description'. The table shows the contents of the /DOL/APWEB package:

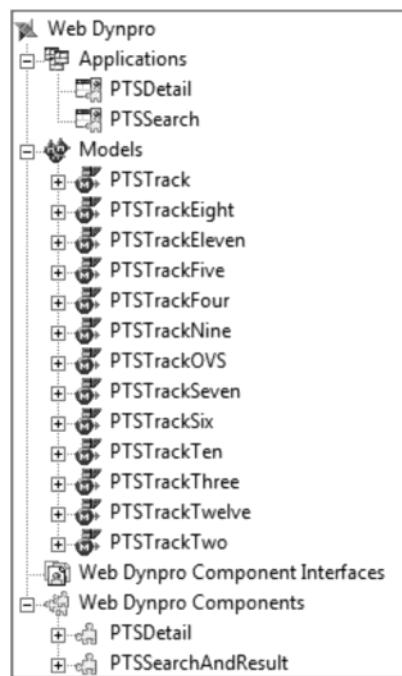
| Object Name          | Description                |
|----------------------|----------------------------|
| ✓ /DOL/APWEB         | Dolphin PTS-AP: Web Add-on |
| ▸ Dictionary Objects |                            |
| ▸ Class Library      |                            |
| ▸ Programs           |                            |
| ▸ Function Groups    |                            |
| ▸ Transactions       |                            |

### 2.2 NetWeaver Java Objects

This section describes the objects created via the SAP NetWeaver Java development environment only. This is a Web Dynpro Java application which has been released on both NetWeaver 2004 (SP9 or higher) and 2004s (SP7 or higher).



The following picture illustrates the structure of the application (Applications, Components, and Models)





### 3 Deployment

**Note:** SAP Web AS version 7.00 or higher is required.

#### 3.1 ECC

The Advanced Approvals license key must be loaded for the Add-On to function. Transaction /DOL/LIC\_UPLOAD is used to load the license key. The key must be loaded one time in each system. Transaction code /DOL/LIC\_INFO can be used to view all loaded license keys.

**Note:** The license transport must be the **first** transport imported with any new installation or upgrade.

#### 3.2 NetWeaver Gateway

The following steps must be taken for the Advanced Approvals to function if you have selected the NetWeaver Gateway (UI5) interface.

##### 3.2.1 Requirements

These are the requirements for NetWeaver Gateway:

NetWeaver Gateway 2.0 updated to SP12

Hana Cloud Platform Only:

Hana Cloud Connector (latest version)

Additionally, if Active Directory authentication integration is needed ADFS 2.0 is required.

UI5 on-premise only:

The following is needed

SAP\_UI release 740 SP-Level 9 or higher

| Component | Release | SP-Level | Support Package   | SPP-Level | Support Package Patch | Type  | Short Description of Component |
|-----------|---------|----------|-------------------|-----------|-----------------------|---|--------------------------------|
| SAP_UI    | 740     | 0009     | SAPK-74009INSAPUI | 0000      | -                     |  | User Interface Technology      |

Please refer to the following SAP documentation for the browser compatibility:  
[https://help.sap.com/saphelp\\_nw74/helpdata/en/91/f079dc6f4d1014b6dd926db0e91070/content.htm](https://help.sap.com/saphelp_nw74/helpdata/en/91/f079dc6f4d1014b6dd926db0e91070/content.htm)

##### 3.2.2 Transports

If the package is delivered as external transport files, follow the standard external transport import procedures established by your SAP Basis team. Also, note that all



PTS transports should always go in with options "Overwrite" and "Ignore Invalid Component Version" checked.

### 3.2.3 Post Transport Steps in the Gateway

1. Ensure the NetWeaver Gateway is activated

The screenshot shows the SAP Display IMG interface. The title bar says 'Display IMG'. The main area has a toolbar with various icons. Below the toolbar is a menu bar with 'Display IMG', 'File', 'Edit', 'View', 'Search', 'Help', and 'Release Notes', 'Change Log', 'Where E...' buttons. The main content area is titled 'Display IMG' and shows the SAP Customizing Implementation Guide structure. The path is: SAP Customizing Implementation Guide > SAP NetWeaver > Gateway > Configuration > User Settings > Connection Settings > Activate or Deactivate SAP NetWeaver Gateway. The 'Activate or Deactivate SAP NetWeaver Gateway' node is highlighted with a red box.

2. In the transaction /n/IWFND/GW\_CLIENT, enter "/sap/opu/odata/DOL/AP\_GW\_SRV", and then click the button for "Maintain Service".



**SAP NetWeaver Gateway Client**

HTTP Method: GET  
Request URI: /sap/opu/odata/dol/ap\_gw\_srv  
Protocol: HTTP

**HTTP Request**  
Header Name Value

**HTTP Response**  
Header Name Value

**Activate and Maintain Services**

**Service Catalog**

| Type | Technical Service Name | Service Description     | External Service Name | Namespace | Soft |
|------|------------------------|-------------------------|-----------------------|-----------|------|
| BEP  | /DOL/AP_GW_SRV         | 1 /DOL/CL_AP_GW_DPC_EXT | AP_GW_SRV             | /DOL/     |      |

3. On the next screen, assign the system alias to the /DOL/AP\_GW\_SRV\_0001 service by clicking on the "Add System Alias" button. on lower right frame:

**System Aliases**

| SAP System Alias | Description | Default | Metadata | User Role |
|------------------|-------------|---------|----------|-----------|
|------------------|-------------|---------|----------|-----------|

4. Enter the values per the screenshot below. (Note: The system alias is customer and system specific and will be different for you.)

- Service Doc Identifier: /DOL/AP\_GW\_SRV\_0001
- SAP System Alias: <customer- and system- specific alias>
- Default system: X

**New Entries: Overview of Added Entries**

| Assign SAP System Aliases to OData Service |           |           |                  |                                     |                          |                 |                   |
|--|-----------|-----------|------------------|-------------------------------------|--------------------------|-----------------|-------------------|
| Service Doc. Identifier                    | User Role | Host Name | SAP System Alias | Default System                      | Metadata Default         | Tech. Svc. Name | Ext. Service Name |
| /DOL/AP_GW_SRV_0001                        |           |           | 8d0_001          | <input checked="" type="checkbox"/> | <input type="checkbox"/> | /DOL/AP_GW_SRV  | AP_GW_SRV         |

If no Alias exists, you will need to create one. Call transaction SPRO and go to SAP NetWeaver -> Gateway -> Former Development -> Generic Channel -> Configuration -> Connection Settings -> SAP NetWeaver Gateway to SAP System -> Manage SAP System Aliases.



Click on "New entries" and enter the customer specific and system specific information. Ensure you select an RFC connection of type "ABAP" (see transaction SM59).

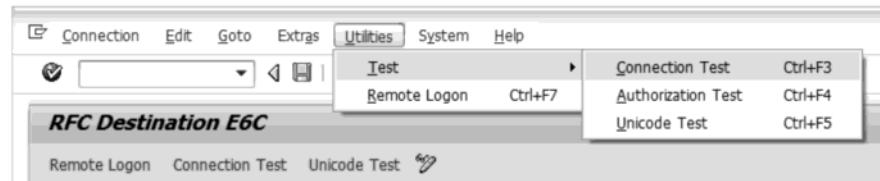
A screenshot of the SAP GUI interface. The title bar reads "Change View \"Manage SAP System Aliases\": Overview". The menu bar includes "Table View", "Edit", "Goto", "Selection", "Utilities", "System", and "Help". On the right side, the SAP logo is visible. The main area shows a table titled "Manage SAP System Aliases" with columns: SAP System Alias, Description, Local GW, For Local App, RFC Destination, Software Version, System ID, Client, and WS Provider System. One row is visible, showing "B4O\_991" as the SAP System Alias, "System alias for BWD" as the Description, checked boxes for Local GW and For Local App, "BWDCLNT500" as the RFC Destination, "BW" as the Software Version, and empty fields for System ID, Client, and WS Provider System.

Here is a listing of RFC's of type "ABAP" in the customer specific SAP landscape.



| RFC Connections                 | Type | WL act.. | Comment                                     |
|---------------------------------|------|----------|---|
| ABAP Connections                | 3    | -        |   |
| BW Development system           | 3    | -        | BW Client for After Import                  |
| BWD                             | 3    | -        |   |
| <b>BWDCLNT500</b>               | 3    | -        | BW Development System                       |
| BWDEV                           | 3    | -        | BWDev                                       |
| BWP                             | 3    | -        |   |
| BWPCLNT500                      | 3    | -        | BW Production                               |
| DEVCLNT300                      | 3    | -        | SAP Development System                      |
| DEVCLNT300_DIALOG               | 3    | -        | SAP Development System                      |
| DYNAMIC_DEST_CALLBACK_WHITELIST | 3    | -        | Callback Whitelist for Dynamic Destinations |
| PRDCLNT300                      | 3    | -        | R/3 DEV 300                                 |
| PRDCLNT300_DIALOG               | 3    | -        | R/3 PRD 300                                 |
| SAPNET_RFC                      | 3    | -        |   |
| SAPNET_RTCC                     | 3    | -        | Automatically created destination to SAP    |
| SAPOSS                          | 3    | -        | SAP OCS Server (CSS)                        |
| SDCC_OSS                        | 3    | -        | Automatically generated Destination to SAP  |
| SMPCLNT800                      | 3    | -        | Solution Manger                             |
| SM_SMPCLNT800_TRUSTED           | 3    | -        | Generierte Destination für CUST_SYNCH       |
| SM_SOLCLNT001_BACK              | 3    | -        | Generated Destination                       |
| SOLCLNT800                      | 3    | -        | CUA   |
| TMSADM@BWD.DOMAIN_BWD           | 3    | -        | TMS Communication Interface *generated*     |
| TMSADM@BWP.DOMAIN_BWD           | 3    | -        | TMS Communication Interface *generated*     |
| TMSADM@BWT.DOMAIN_BWD           | 3    | -        | TMS Communication Interface *generated*     |
| TMSSUP@BWD.DOMAIN_BWD           | 3    | -        | TMS Communication Interface *generated*     |
| TMSSUP@BWP.DOMAIN_BWD           | 3    | -        | TMS Communication Interface *generated*     |
| TMSSUP@BWT.DOMAIN_BWD           | 3    | -        | TMS Communication Interface *generated*     |
| Internal Connections            | I    |          |   |
| SNA/CPI-C connections           | S    |          |   |
| TCP/IP connections              | T    |          |   |
| Connections via ABAP Driver     | X    |          |   |

Check that the RFC connection is successful (Utilities->Test->Connection Test and Utilities->Test ->Authorization Test)



Once everything is properly linked the Alias section should look like this (again note that aliases are customer and system specific and your values will be different):

| Add System Alias | Remove System Alias  | Customizing                         | Service Implementation   |           |
|------------------|----------------------|-------------------------------------|--------------------------|-----------|
| System Aliases   |                      |                                     |                          |           |
| SAP System Alias | Description          | Default                             | Metadata                 | User Role |
| BWD_001          | System alias for BWD | <input checked="" type="checkbox"/> | <input type="checkbox"/> |           |

- Once you've assigned the alias to the service, activate the ICF node in the bottom left panel



6. Execute tcode SICF to activate the Dolphin UI5 application and Gateway services (ap\_ui5, ui5\_ui5 and file\_upload). In the bottom window, expand Default Host ->SAP->bc>ui5-ui5->dol->ap\_ui5 Right click service ap\_ui5 and activate the service.

|           |   |
|-----------|---|
| ▼  ui5    | SAPUI5 Application Handler SAPUI5 Applic... |
| ▼  dol    | namespace                                   |
| •  ap_ui5 | PTS AP SAPUI5                               |

Repeat the same for the "/sap/opu/odata//DOL" and "/sap/bc/dol/" nodes (choose to activate the sub-nodes as well).

7. Using SM30, add the RFC destination in table /DOL/AP\_GW\_CONF with the configuration name BACKEND\_RFC\_DESTINATION.

| Display View "Dolphin PTS-AP: Gateway Services Configuration": Overview |                         |       |   |
|---|-------------------------|-------|---|
|   |                         |       |   |
| Dolphin PTS-AP: Gateway Services Configuration                          |                         |       |   |
| PTS Project ID  | Name                    | Value | Short Description   |
| DEMO  | BACKEND_RFC_DESTINATION | E6C   | <input checked="" type="checkbox"/> SM59 ECC Default Destination if ECC is remote |

8. When everything is setup you should be able to go back to the service and run it in the Netweaver Gateway Client and see the http response like



in the screenshot below:

SAP NetWeaver Gateway Client

SAP NetWeaver Gateway Client

HTTP Method: GET, POST, PUT, PATCH, DELETE, HEAD, DELETE  
Request URI: /sap/opu/odata/sap\_gw\_ivy  
Protocol: HTTP, HTTPS  
Test Group: Test Case  
Multiple Rows

Header Name Value

HTTP Request

Header Response

| Header Name    | Value                           |
|----------------|---------------------------------|
| content-type   | application/json; charset=utf-8 |
| content-length | 19445                           |

<?xml version="1.0" encoding="utf-8" ?>  
- <app:service xml:lang="en"  
 xmlns-base="http://www.w3.org/2007/app" xmlns:atom="http://www.w3.org/2005/Atom"  
 xmlns:m="http://schemas.microsoft.com/ado/2007/08/dataservices/metadata"  
 xmlns:sap="http://www.sap.com/Protocols/SAPData">  
- <app:workspace>  
- <atom:title type="text">Data</atom:title>  
- <app:collection sap:content-version="1" href="SubscriptionCollection">  
 <atom:title type="text">SubscriptionCollection</atom:title>  
 <app:member-type>Subscription</app:member-type>  
</app:collection>  
- <app:collection sap:createable="false" sap:updatable="false" sap:deletable="false"  
 sap:content-version="1" href="NotificationCollection">  
 <atom:title type="text">NotificationCollection</atom:title>  
 <app:member-type>Notification</app:member-type>  
</app:collection>  
- <app:collection sap:content-version="1" href="ET01Collection">  
 <atom:title type="text">ET01Collection</atom:title>  
 <app:member-type>ET01</app:member-type>  
</app:collection>  
- <app:collection sap:content-version="1" href="TrackRFCCollection">  
 <atom:title type="text">TrackRFCCollection</atom:title>  
 <app:member-type>TrackRFC</app:member-type>  
</app:collection>  
- <app:collection sap:createable="false" sap:updatable="false" sap:deletable="false"

#### 9. To add APU15 as a Fiori Tile:

- a. First import the transport (E7AK900146) contained in dolphinapui5\_tile\_semantics.zip.
  - b. In the FLP admin ([http://gatewayserver:port/sap/bc/ui5\\_ui5/sap/arsrvc\\_upb\\_admin/main.html](http://gatewayserver:port/sap/bc/ui5_ui5/sap/arsrvc_upb_admin/main.html)), select the catalog you want to add the Dolphin Tile to and click on Target Mapping -> Create Target Mapping:)

| Semantic Object | Action              | Desktop |
|-----------------|---------------------|---------|
| Vendor          | displayBalance      | ✓       |
| Vendor          | managePaymentBlocks | ✓       |
| phip            | display             | ✓       |



- c. Add the following details (URL: /sap/bc/ui5/ui5/dol/ap\_ui5/) on the target mapping and click "Add":

| Semantic Object | Action              | Desktop |
|-----------------|---------------------|---------|
| Vendor          | displayBalance      | ✓       |
| Vendor          | managePaymentBlocks | ✓       |
| pmap            | display             | ✓       |

Create Target Mapping

- d. Return to the catalog, click on Tiles tab and click on Add Tile icon:

ID : X-SAP-UI2-CATALOGPAGE:SAP\_SFIN\_BC\_PAY\_CLERK

The screenshot shows the SAP Fiori tiles catalog. The top navigation bar has tabs for 'Tiles' and 'Target Map.'. Below the ID, there are several tile cards:
 

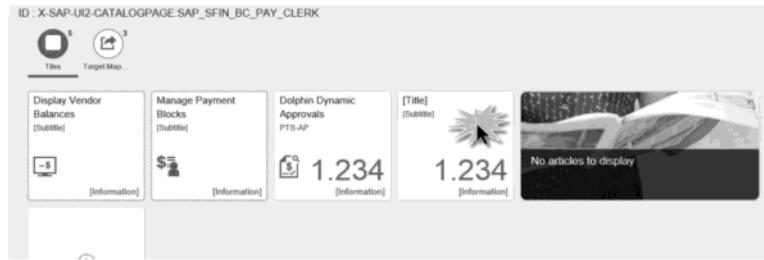
- Display Vendor Balances [Subtile]**: Shows a balance of -\$123.
- Manage Payment Blocks [Subtile]**: Shows a balance of \$123.
- Dolphin Dynamic Approvals PTS-AP**: Shows a value of 1.234.
- News Tile**: Shows a message 'No articles to display'.

 To the right of the tiles is a large 'Add Tile' button with a plus sign and a starburst icon.

- e. Click on "App Launcher – Dynamic".

The screenshot shows the 'App Launcher – Dynamic' screen. It displays a brief description: 'Displays dynamic content read from a data source'. Below the description is a large 'Add' button with a plus sign and a starburst icon, which is being clicked.

- f. Click on the new draft Tile.



g. A blank form will be displayed.

Configure 'App Launcher - Dynamic'

|   |   |   |
|---|---|---|
| <b>General</b>                              | <b>Dynamic Data</b>                               | <b>Navigation</b>   |
| Title: <input type="text"/>                 | Service URL: <input type="text"/>                 | Use semantic object navigation: <input checked="" type="checkbox"/> |
| Subtitle: <input type="text"/>              | Refresh Interval in Seconds: <input type="text"/> | Semantic Object: <input type="text"/>                               |
| Keywords: <input type="text"/>              | Action: <input type="text"/>                      |   |
| Icon: <input type="text"/> sap-icon://fiori | Parameters: <input type="text"/>                  |   |
| Information: <input type="text"/>           | Target URL: <input type="text"/>                  |   |
| Number Unit: <input type="text"/>           |   |   |

h. Fill in as below:

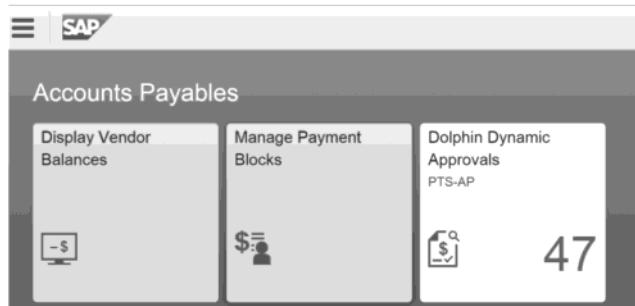
Service URL:  
`/sap/opu/odata/dol/AP_GW_SRV/Tracks/$count?$filter=MyApprovals%20eq%20true`

ICON: sap-icon: //Fiori2/F0252

Configure 'Dolphin Dynamic Approvals'

|   |  |   |
|---|--|---|
| <b>General</b>  | <b>Dynamic Data</b>  | <b>Navigation</b>   |
| Title: <input type="text"/> Dolphin Dynamic Approvals | Service URL: <input type="text"/> /sap/opu/odata/dol/AP_GW_SRV/Tracks/\$count?\$filter=MyApprovals%20eq%20true | Use semantic object navigation: <input checked="" type="checkbox"/> |
| Subtitle: <input type="text"/> PTS-AP                 | Refresh Interval in Seconds: <input type="text"/>  | Semantic Object: <input type="text"/> phap                          |
| Keywords: <input type="text"/> AP, Dolphin, PTS       | Action: <input type="text"/> display   |   |
| Icon: <input type="text"/> sap-icon://fiori/F0252     | Parameters: <input type="text"/>   |   |
| Information: <input type="text"/>                     | Target URL: <input type="text"/> /sap/opu/display  |   |
| Number Unit: <input type="text"/>                     |  |   |

i. Add this file to the group using this catalog and the final output would show as in the example below:



### 3.2.4 Post Product Reimport Steps

After a product reimport, if any caching issues are suspected, perform the following actions on the NetWeaver Gateway system to clear the cache:

- o Call transaction code /IWFDN/CACHE\_CLEANUP
- o Call transaction code SE38 or SA38 to execute program /UI2/DELETE\_CACHE\_AFTER\_IMP
- o Delete the contents of the Dolphin table /dol/ap\_gw\_cache from SM30

### 3.2.5 Post Product Reimport Steps

The following SAP standard programs should be run from se38 after Gateway/ui5 upgrade transports have been applied in the system.

1. /UI2/DELETE\_CACHE

Enter '\*' in the Username field and select both the checkboxes as shown below:

**Delete entity set from cache**

Selection

User Name \*  
Enter URL (optional)  
 Delete in all clients  
 Show output



2. /UI2/CHIP\_SYNCHRONIZE\_CACHE

Run the report. No specific input selection is required.

3. /UI2/DELETE\_CACHE\_AFTER\_IMP

Run the report. The output of this report will provide the cache entries deleted after import.

4. /UI2/INVALIDATE\_CLIENT\_CACHES

Select all users when running this report.

**/UI2/INVALIDATE\_CLIENT\_CACHES**

|  |        |
|--|--------|
| UI2 Client Caches Invalidation                 |        |
| <input checked="" type="radio"/> For all users |        |
| <input type="radio"/> For user                 | SLESHA |

5. /UI2/INVALIDATE\_GLOBAL\_CACHES

Select 'Execution mode' when running this report.

**UI2 Global Caches Invalidation**

|   |  |
|---|--|
| UI2 Global Caches Invalidation                  |  |
| <input type="radio"/> Test Mode                 |  |
| <input checked="" type="radio"/> Execution Mode |  |

6. /UI5/APP\_INDEX\_CALCULATE



Use this report to calculate the SAPUI5 application index for SAPUI5 repositories which can contain SAPUI5 applications, components, or libraries.  
Select "All SAPUI5 Repositories" and run this report.

**Calculation of SAPUI5 Application Index for SAPUI5 Repositories**

Display All Logs    Display SAPUI5 Rep.-Related Logs    Display SAPUI5 Component-Specific Logs    Display General Logs

Based on All SAPUI5 Repositories  Based on Single SAPUI5 Repository

All SAPUI5 Repositories  
 Depending on Expiry Period

Expiry Period - Hours    
Expiry Period - Minutes

Execution of this report takes approximately 30-40 seconds. Following is an example of the output of this report from our system.

**Calculation of SAPUI5 Application Index for SAPUI5 Repositories**

Display All Logs    Display SAPUI5 Rep.-Related Logs    Display SAPUI5 Component-Specific Logs    Display General Logs

Calculation of SAPUI5 Application Index for SAPUI5 Repositories

Calculation for all SAPUI5 repositories done

Number of SAPUI5 repositories: 151

Number of SAPUI5 application index entries created: 151  
Number of SAPUI5 application index entries updated: 0  
Number of SAPUI5 application index entries deleted: 0

No errors occurred



### 3.3 NetWeaver Java

#### 3.3.1 EAR/SCA deployment

Web application can be delivered either as self-contained EAR file for easy SDM deployment directly on J2EE server, or as SCA, so that it can be imported as external software components in a dedicated track on your NWDI environment. Additionally, a jexcel file is delivered to enable spreadsheet uploading. The jexcel file should be deployed before the EAR file.

The SC name is dolphin-corp\_PTSAp whereas DC name is dolphin-corp.com\PTS\_AP.

Two applications corresponding to two components are PTSSearch and PTSDetail.

Test the deployment by logging on to:

`http://<NWASserver>:<port>/webdynpro/dispatcher/dolphin-corp.com/pts_ap/PTSSearch`

This application allows PTS invoice search as illustrated in the following figure.



**Dolphin Process Tracking System (PTS) - Accounts Payable**

| Search Criteria  |  |            |              |        |                   |                      |              |                 |
|--|--|------------|--------------|--------|-------------------|----------------------|--------------|-----------------|
| <b>System Data</b>   |  |            |              |        |                   |                      |              |                 |
| Tracking Record Number:  | From <input type="text"/> To <input type="text"/>  |            |              |        |                   |                      |              |                 |
| Process Status:  | From <input type="text"/> To <input type="text"/>  |            |              |        |                   |                      |              |                 |
| Receipt Date:  | From <input type="text"/> To <input type="text"/>  |            |              |        |                   |                      |              |                 |
| <b>Document Data</b>   |  |            |              |        |                   |                      |              |                 |
| Vendor Number:   | From <input type="text"/> To <input type="text"/>  |            |              |        |                   |                      |              |                 |
| Vendor Name:   | From <input type="text"/> To <input type="text"/>  |            |              |        |                   |                      |              |                 |
| Company Code:  | From <input type="text"/> To <input type="text"/>  |            |              |        |                   |                      |              |                 |
| Document Number:   | From <input type="text"/> To <input type="text"/>  |            |              |        |                   |                      |              |                 |
| Fiscal Year:   | From <input type="text"/> To <input type="text"/>  |            |              |        |                   |                      |              |                 |
| Reference Number:  | From <input type="text"/> To <input type="text"/>  |            |              |        |                   |                      |              |                 |
| Reference Date:  | From <input type="text"/> To <input type="text"/>  |            |              |        |                   |                      |              |                 |
| Currency:  | From <input type="text"/> To <input type="text"/>  |            |              |        |                   |                      |              |                 |
| Amount:  | From <input type="text"/> To <input type="text"/>  |            |              |        |                   |                      |              |                 |
| Payment Due Date:  | From <input type="text"/> To <input type="text"/>  |            |              |        |                   |                      |              |                 |
| Purchasing Group:  | From <input type="text"/> To <input type="text"/>  |            |              |        |                   |                      |              |                 |
| Purchase Order:  | From <input type="text"/> To <input type="text"/>  |            |              |        |                   |                      |              |                 |
| Variable Field:  | From <input type="text"/> To <input type="text"/>  |            |              |        |                   |                      |              |                 |
| Service #:   | From <input type="text"/> To <input type="text"/>  |            |              |        |                   |                      |              |                 |
| Express Processing:  | From <input type="text"/> To <input type="text"/>  |            |              |        |                   |                      |              |                 |
| FI Document Type:  | <input checked="" type="checkbox"/> Credit Memo <input checked="" type="checkbox"/> Invoice <input type="checkbox"/> Variable Flag |            |              |        |                   |                      |              |                 |
| Maximum Results:   | <input type="text"/> 00000050  |            |              |        |                   |                      |              |                 |
| <input type="button" value="Search"/> <input type="button" value="Clear"/> |  |            |              |        |                   |                      |              |                 |
| <b>Results Hitlist</b>   |  |            |              |        |                   |                      |              |                 |
| Information  | Image  | PTS Record | Receipt Date | Status | Vendor/Creditor # | Vendor/Creditor Name | Company Code | Accounting Docu |
| <input type="button" value="Details"/>                                     | <input type="button" value="View"/>  | 00000265   | 4/20/2007    | 060    | 1000              | C.E.B. BERLIN        | 1000         |                 |
| <input type="button" value="Details"/>                                     | <input type="button" value="View"/>  | 00000219   | 3/30/2007    | 060    | 1000              | C.E.B. BERLIN        | 1000         |                 |
| <input type="button" value="Details"/>                                     | <input type="button" value="View"/>  | 00000155   | 3/13/2007    | 060    | 1000              | C.E.B. BERLIN        | 1000         |                 |
| <input type="button" value="Details"/>                                     | <input type="button" value="View"/>  | 00000154   | 3/13/2007    | 060    | 1000              | C.E.B. BERLIN        | 1000         |                 |
| <input type="button" value="Details"/>                                     | <input type="button" value="View"/>  | 00000153   | 3/13/2007    | 060    | 1000              | C.E.B. BERLIN        | 1000         |                 |
| <input type="button" value="Details"/>                                     | <input type="button" value="View"/>  | 00000149   | 3/12/2007    | 060    | 1000              | C.E.B. BERLIN        | 1000         |                 |
| <input type="button" value="Details"/>                                     | <input type="button" value="View"/>  | 00000148   | 3/12/2007    | 060    | 1000              | C.E.B. BERLIN        | 1000         |                 |
| <input type="button" value="Details"/>                                     | <input type="button" value="View"/>  | 00000144   | 3/12/2007    | 060    | 1000              | C.E.B. BERLIN        | 1000         |                 |
| <input type="button" value="Details"/>                                     | <input type="button" value="View"/>  | 00000141   | 3/12/2007    | 060    | 1000              | C.E.B. BERLIN        | 1000         |                 |
| <input type="button" value="Details"/>                                     | <input type="button" value="View"/>  | 00000140   | 3/9/2007     | 060    | 1000              | C.E.B. BERLIN        | 1000         |                 |

Row 1 of 26

Done

To test detail application, click on "Detail" button. A screen similar to the following will appear:



Dolphin Process Tracking System (PTS) - A/P

Invoice Actions

[View Image] [Approve] [Reject] [Send Email] [Back to Search Result] [Exit]

Header Information

PTS-AP Record

|                        |                                    |
|------------------------|------------------------------------|
| PTS-AP Record 00000459 | Receipt Date 04/2007               |
| Vendor# 3710           | Vendor Name SONORAN PRODUCTS, INC. |
| Amount 2,868.09 USD    |                                    |
| Company Code 3000      | Due Date                           |
| Invoice# S-6884        | Invoice Date 11/30/2000            |

Line Item Information

PTS-AP Record

Line Item Coding

| G/L        | Cost Ctr | Amount   | Order | Material | D/C   |
|------------|----------|----------|-------|----------|-------|
| 100000     |          | 2,868.09 |       |          | Debit |
| Row 1 of 1 |          |          |       |          |       |

[1] [Add Line Items] [Delete Line]

Invoice Notes and Comments

ADAMS 20070804 171834 - I am putting it all against petty cash..

[Save] [Clear]

PTS Process History

| Date     | Time        | Status Code | Status Description   | User   | Document Item |
|----------|-------------|-------------|----------------------|--------|---------------|
| 8/4/2007 | 11:37:20 AM | 015         | Received - Duplicate | VISHAL | 000000        |
| 8/4/2007 | 12:42:50 PM | 020         | Resubmit             | JOHND  | 000000        |
| 8/4/2007 | 12:43:54 PM | 020         | Resubmit             | JOHND  | 000000        |
| 8/4/2007 | 1:48:24 PM  | 060         | Waiting for approval | JOHND  | 000000        |
| 8/4/2007 | 5:18:39 PM  | 061         | Approved             | ADAMS  | 000000        |

Row 1 of 6

PTS-AP Record Approval Chain

Add Adhoc Approver

| Seq | Org object | Curr | Decision |
|-----|------------|------|----------|
| 1   | ADAMS      | A    |          |
| 2   | GEORGEW    | X    |          |



### 3.3.2 JCO Destinations

The following JCO destinations need to be setup for Dolphin application to function:

The JCO destinations should be defined using Web Dynpro / Content Administrator from J2EE engine's home page.

For user authentication with User/Password method, a dedicated CPIC user should be entered in the logon tab and the specific data tab is left to whatever the default values are. Appendix A summarizes the authorizations required by CPIC user.

When both destinations are defined, perform ping and test to ensure that destinations are active.

For JCO pool settings, account for an average 4 sessions for each concurrent user.



The screenshot shows a Fiori application interface for creating a JCo Destination. The main panel displays a list of destinations:

| Name                          |
|-------------------------------|
| WD_PTSTRACK_MODELDATA_DEST    |
| WD_PTSTRACK_RFC_METADATA_DEST |
| < >                           |
| Row 1 of 2                    |

Below this is a 'Create new JCo Destination' wizard:

- Step 1: General Data (selected)
- Step 2: J2EE Cluster
- Step 3: Connection Type

The 'General Data' step contains the following configuration:

Define the required authentication method and (optionally) the Define the used authentication method and (optionall

**User Authentication**

Used Method: User / Password  
Name: DOLPHIN\_BAPI\_USER  
Password: \*\*\*\*\*  
Confirm Password: \*\*\*\*\*  
Language: English

Buttons at the bottom: Previous, Next, Finish, Cancel

On the left, a sidebar shows 'Deployed Content' with options: local, sap.com, System Defined Content.

On the right, a 'General' tab shows a list of destinations:

| Name                          | Status |
|-------------------------------|--------|
| WD_PTSTRACK_MODELDATA_DEST    | □      |
| WD_PTSTRACK_RFC_METADATA_DEST | □      |
| < >                           |        |
| Row 1 of 2                    |        |



Refer to

<https://www.sdn.sap.com/irj/sdn/go/portal/prtroot/docs/library/uuid/3103eb90-0201-0010-71af-be6f4a6f61d1> for best practices on JCO destination settings.

More details on using WD content administrator can be found on SAP help portal, or  
[https://www.sdn.sap.com/irj/servlet/prt/portal/prtroot/com.sap.nw.wpc.runtime.docs/library/web-dynpro-java/\\_web-dynpro-java/7.0/Portal%20Integration/How%20to%20Use%20the%20Web%20Dynpro%20Content%20Administrator.pdf](https://www.sdn.sap.com/irj/servlet/prt/portal/prtroot/com.sap.nw.wpc.runtime.docs/library/web-dynpro-java/_web-dynpro-java/7.0/Portal%20Integration/How%20to%20Use%20the%20Web%20Dynpro%20Content%20Administrator.pdf)

### 3.3.3 UME

The approver's user ID as selected in SAP during approver selection should match the user ID of the logged in Web Dynpro application user.

Any SAP supported method for user authentication and user store, e.g. ABAP store, AD store, local store, AD store including SSO is supported by Dolphin as long as above condition is met.

Assignment of role for ui5 users:

Dolphin does not need any special end-user role in the gateway system. BASIS can assign the users baseline Fiori role. The most commonly used role template is /IWFND/RT\_GW\_USER. This is the Role template for enabling all users, and user groups, to access all OData services in the SAP NetWeaver Gateway system. This role is maintained for users and their authorizations in the Profile Generator using transaction PFCG. This is a single role.

If a more fine-tuned role is needed, please refer to <https://help.sap.com/viewer/68bf513362174d54b58cddec28794093/7.5.8/en-US/4a5d22518bc72214e1000000a44176d.html>. The Dolphin gateway service name is /DOL/AP\_GW\_SRV\_001 .

For the security role for the Dolphin RFC user in ECC or S/4, please refer to the Appendix A.

### 3.3.4 ARFC2 Destinations Definition for NetWeaver 7.3

The ARFC2 destinations need to be setup for Dolphin application for NW 7.3 to function. They should be defined using NetWeaver Administrator/ Configuration



tab -> Destinations from J2EE engine's home page as shown in the following screenshot:

The screenshot shows the SAP NetWeaver Administrator interface with the 'Destinations' tab selected. The left sidebar lists several views: Authentication and Single Sign-On, User Management Engine, Trusted Systems, and SSL. The main content area displays a list of destinations with their details. A tooltip for the 'Destinations' view explains that applications can establish connections to other services.

| Destination                   | Destination Type |
|-------------------------------|------------------|
| WD_PTSTRACK_MODELDATA_DEST    | RFC Destination  |
| WD_PTSTRACK_RFC_METADATA_DEST | RFC Destination  |

To utilize the SAP NetWeaver portal 7.3 compatible EAR, customers' needs to be on at least Dolphin PTS-AP 5.0 Q4 2012 release.

Create these two RFC destinations using create button:

The screenshot shows the 'Destinations: Destinations' creation screen. It includes a 'Destination List' table with two entries: 'WD\_PTSTRACK\_MODELDATA\_DEST' and 'WD\_PTSTRACK\_RFC\_METADATA\_DEST', both categorized as 'RFC Destination'. Below the table are buttons for 'Create...', 'Remove', 'Remove All', and 'Refresh'.

| Destination                   | Destination Type |
|-------------------------------|------------------|
| WD_PTSTRACK_MODELDATA_DEST    | RFC Destination  |
| WD_PTSTRACK_RFC_METADATA_DEST | RFC Destination  |

The information that needs to be entered in connection and transport tab is shown in the screenshots on next page for both the destinations.

For user authentication, User/Password method with dedicated CPIC user should be entered in the logon tab and the specific data tab is left to whatever the default values are.

Once both destinations are defined, perform ping and test to ensure that destinations are active.



### Destinations: Destinations

Favorites Related Links Go To Support Details

Show: All Destinations

#### Destination List

Create Remove Remove All Refresh

##### Destination

- DASdefault
- SLD\_Client
- SLD\_DataSupplier
- WD\_PTSTRACK\_RFC\_METADATA\_DEST
- WD\_PTSTRACK\_MODELDATA\_DEST

|                  | Destination Type |
|------------------|------------------|
| HTTP Destination |                  |
| HTTP Destination |                  |
| HTTP Destination |                  |
| RFC Destination  |                  |
| RFC Destination  |                  |

#### Destination Detail

Edit Ping Destination

RFC Destination WD\_PTSTRACK\_RFC\_METADATA\_DEST

Connection and Transport Logon Data Specific Data

##### Connection

Load Balancing:  Yes  No  
 Local System Connection:   
 Target Host:   
 System Number:  E6C  
 System ID:  dolecc60a  
 Message Server:   
 Message Server Service:   
 Logon Group:  PUBLIC  
 Gateway Host:   
 Gateway Service:

##### SNC

SNC:  Active  Inactive  
 QoS:  Privacy Protection  
 SNC Partner Name:

### Destinations: Destinations

Favorites Related Links Go To Support Details

Show: All Destinations

#### Destination List

Create Remove Remove All Refresh

##### Destination

- DASdefault
- SLD\_Client
- SLD\_DataSupplier
- WD\_PTSTRACK\_RFC\_METADATA\_DEST
- WD\_PTSTRACK\_MODELDATA\_DEST

|                  | Destination Type |
|------------------|------------------|
| HTTP Destination |                  |
| HTTP Destination |                  |
| HTTP Destination |                  |
| RFC Destination  |                  |
| RFC Destination  |                  |

#### Destination Detail

Edit Ping Destination

RFC Destination WD\_PTSTRACK\_MODELDATA\_DEST

Connection and Transport Logon Data Specific Data

##### Connection

Load Balancing:  Yes  No  
 Local System Connection:   
 Target Host:  dolecc60a  
 System Number:  02  
 System ID:  E6C  
 Message Server:   
 Message Server Service:   
 Logon Group:   
 Gateway Host:   
 Gateway Service:

##### SNC

SNC:  Active  Inactive  
 QoS:  Privacy Protection  
 SNC Partner Name:

Test the deployment by logging on to:

[http://<NWASserver>:<port>/webdynpro/resources/dolphincorp.com/pts\\_ap/PTSSearch](http://<NWASserver>:<port>/webdynpro/resources/dolphincorp.com/pts_ap/PTSSearch)



## 4 PTS Application Configuration

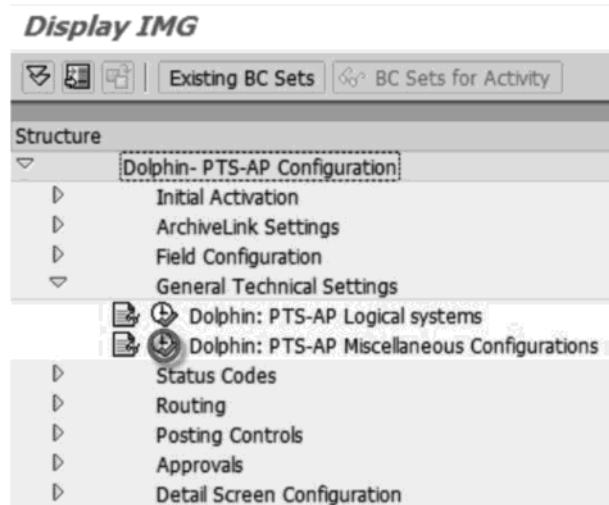
This section describes all steps necessary to activate the PTS-AP after the transport files have been imported successfully into the system and the development class /DOL/AP has been checked for completeness. It is recommended to verify that all data dictionary objects and ABAP/4 workbench objects in development class /DOL/APWEB are generated and activated in the system.

### 4.1 PTS Table Maintenance

Following tables in PTS-AP core system have to be maintained to activate the solution: /DOL/AP\_T08 and /DOL/AP\_T09

#### 4.1.1 Miscellaneous Configuration Table (Activity: Dolphin: PTS-AP Miscellaneous Configurations)

1. Select activity **General Technical Settings** → **Dolphin: PTS-AP Miscellaneous Configurations**.



2. The Miscellaneous configurations table (/DOL/AP\_T08) is used for various PTS-AP settings in the form of name-value pairs. Verify that all standard values are



maintained in the table /DOL/AP\_T08 for your PTS project. The following entries are available in the standard PTS-AP:

| Status                    | Description  |
|---------------------------|--|
| AA_SIMPLE_EMAIL_ACTIVE    | Value = 'X' to make simple email feature active for only Non-Sap users. Value = 'GLOBAL' to activate for all   |
| AA_SIMPLE_EMAIL_CLASS     | Technical setting only. Custom Inbound class defined in SO50 for custom handling for Simple email inbound mail.  |
| AA_SIMPLE_EMAIL_CUSTCLASS | Customer Class for custom methods  |
| AA_SIMPLE_EMAIL_IMAGE     | Value = 'LINK' to include invoice as a link. Value = ATTACH to include invoice as an attachment. Value = 'X' for both link and attachment. If active, the setting will be in effect for all emails, both simple and regular. |
| AA_SIMPLE_EMAIL_NOLINES   | When active, send simple email even with no coding lines   |
| AA_SIMPLE_EMAIL_NOTESM    | Custom method for attaching inbound notes.   |
| AA_SIMPLE_EMAIL_REPLY     | 'X' to send reply if successful. (If error, a reply is always sent.)   |
| AA_SIMPLE_EMAIL_STATUS    | Value = 661. Sub-status for Simple email decision  |
| ADHOC_APPROVAL_EXIT       | User exit for implementing customized adhoc approval user insert   |
| ADHOC_MAIL_FORMAT         | Format (MIME or Space for Text) for the adhoc mail from AP2N. Default or inactive is TEXT.   |
| ADHOC_MAIL_TEMPLATE       | Template prefix to use if not /DOL/ for the adhoc mail from AP2N   |
| ALPHA_GLDROPDWN           | Don't delete leading zero in dropdown search for GL on web   |
| APPROVAL_EMAIL            | Set to 'BATCH' if original approval e-mails are not to be sent out as individual e-mails   |
| APPROVAL_EMAIL_FORMAT     | Set to 'MIME' to use HTML templates for email texts. Value = 'TEXT' to use standard text.  |



|                         |   |
|-------------------------|---|
| APPROVAL_EMAIL HOLDER   | "X" and active to add '&' around the placeholders (example &Y1&)  |
| APPROVAL_EMAIL_TEMPLATE | Template prefix to use for customized templates   |
| APPROVAL_SUBSTATUS_ONCE | Active and "X" to see sub-status selection for web approvals  |
| CODING_VALIDATION_EXIT  | User exit for implementing customized web line-item validation  |
| EARMARKEDFUND_FIELDS    | Dynamic assignment for earmark fund fields  |
| EMAIL_OPEN_AMT_ONLY     | "X" and active to send regular web approval email rather than simple email approval when there are insufficient funds on the PO   |
| ESCALATION_EMAIL        | Set to 'BATCH' if escalation e-mails are not to be sent out as individual e-mails   |
| FI_PASS_UUID            | If Active pass UUID to SAP Transaction screen for non-PO invoices   |
| GATEWAY_PUSH_DEST       | List the destination to send push notifications when approval emails are sent.  |
| IMAGE_PROXY_URL         | Image proxy URL for web. Sets the image URL used by the web application to be prefixed by this proxy URL, with the original image URL passed as a query string after being escaped  |
| IMAGE_URL_FIND_REPLACE1 | Find and replace URL for the web. Allows certain parts (or whole) image URL to be replaced by another string. (for classic web where the image server is behind the firewall and needs to be accessed via a reverse proxy server) |
| MIRO_PASS_UUID          | If active pass UUID to SAP Transaction screen for PO invoices   |
| ML81_FRONTEND           | Check ML81N S_TCODE security for SE acceptance from Web. Need SSO authentication for this to work (as opposed to CPIC user).  |



|                          |   |
|--------------------------|---|
| MOVE_ON_SUBSTITUTION     | To move the current user's MyApproval items to the substitute immediately upon saving new substitute from MySettings. This option should only be used if the batch job for batch substitution and effective dates concept is not used   |
| REMINDER_EMAIL           | Set to 'BATCH' if reminder e-mails are not to be sent out as individual e-mails   |
| STATIC_EMAIL_SENDER      | SAP User ID which can be used as "Sender" of the e-mails sent out from PTS. Default sender is A/P user's SAP user ID.   |
| STATIC_V_EMAIL_SENDER    | WF-BATCH or the desired SAP userid. The sender Email address for the vendor email function will be the address associated with the SAP userid in SU01. (If inactive, the sender address is the email of the last user who sent the vendor email.)   |
| SUBSTITUTE_STATUS        | Value = 601.. Active for 'Substitution Done' added to history when a substitute approves the record.  |
| WBS_MASKED_FORMAT_ACTIVE | When active, WBS will display in masked format on the web just as it does within R/3.   |
| WEBLINK                  | <p>URL to the web application's detail application.<br/>e.g.<br/>"http://&lt;server&gt;:&lt;port&gt;/webdynpro/dispatcher/dolphin-corp.com/PTS_AP/PTSDetail?qsimgatstart=true&amp;qsrecno= "</p> <p>Note: This is the link that appears in the approval emails and the record number is filled in by the ABAP programming for email generation.</p> |



|                           |   |
|---------------------------|---|
| WEBURL_MYAPPROVALS        | Netweaver MyApprovals URL:<br>"http://<server>:<port>/webdynpro/dispatcher/dolphin-corp.com/PTS_AP/PTSSearch?myapprovals=X  |
| WEB_ACTIVATE_GLVALIDATION | UI5 My Approvals URL:<br>"http://<server>:<port>/sap/bc/ui5/ui5/dol/ap_ui5/index.html?destination=E6C&myApprovals=  |
| WEB_ALLOW_MASS_ACTION     | "X" to validate GL. Custom FM is required with this activation.   |
| WEB_APPLY_LINE_BUKRS      | For UI5, when this is active, mass approval/rejection will be available for approvals with the same sub-status  |
| WEB_AUTO_POST             | 'X' to auto-post after final approver if coding passes validations  |
| WEB_BUTTONDESC_APPROVE    | VALUE = Text of the Approve button  |
| WEB_BUTTONDESC_HELP       | VALUE = Text of the Help button   |
| WEB_CHKGL_TAXCOD          | Enforces tax code based on G/L settings. This check is not carried out by SAP BAPI. This entry makes tax code a required field.   |
| WEB_CODER_DISABLE         | 'X' to disable coder entry from mySettings  |
| WEB_CODING_REQD           | If 'X', this forces web approver to provide at least one valid line of coding while approving   |
| WEB_COLDESC_XREF1         | Assign label to XREF1 column field in line-item coding for non-PO invoices.<br><br><i>In general, any coding table field can be assigned an alternate column header by adding WEB_COLDESC_&lt;fieldname&gt; entry in T08 table for your project. Refer to T11 table for all possible line fields.</i> |
| WEB_DEBUG_METHODS         | The methods which needs to be used on to the NWA logs, use csv  |
| WEB_DEBUG_SEVERITY        | Strictly used for testing   |
| WEB_DEBUG_XML             | Strictly used for testing   |



|                           |  |
|---------------------------|--|
| WEB_DISABLE_ADHOC         | Disable Adhoc approval feature   |
| WEB_DISABLE_EXCELTEMPLATE | "X" to disable excel template upload button on classic web & detail screen   |
| WEB_DISABLE_MYAPPROVAL    | Disable MyApprovals Option on Search Application. Disables button and checkbox.  |
| WEB_DISABLE_ONE_SUB_POPUP | Active with value 'X' to have the substatus selection pop up not appear if there is only one sub-status  |
| WEB_DOC_TYPE_ACC_ASSIGN   | List of PO types that will be treated as framework POs with MAA functionality  |
| WEB_DOC_TYPE_ASSIGN_CAT   | List the account assignment category(s) to use as an indicator of MAA. Historically, this determination was based on the PO type only.   |
| WEB_EDIT_PHVVALU1         | <p>Make VVALU1 field in PTS record header tab editable during approvals.</p> <p>Currently VVALU, VVALU1, VVALU2, VVALU3, payment method, payment reference, tax code and company code (PTS header tab fields) can be made editable by adding WEB_EDIT_PH&lt;fieldname&gt; entry in T08 table for your project.</p> |
| WEB_EMAIL_LINK            | Same as WEblink if "Send E-Mail" link on web detail page needs to use URL from this table instead of WebDynpro Java API. This is useful when PTS application is deployed as portal iView and SSO is needed.  |
| WEB_ENABLE_ADDMANAGER     | Enable Add Manager Button  |
| WEB_ENABLE_ADDREVIEWER    | Enable Ad Hoc Approver Button. Reviewer is a special feature that may require a custom user-exit development. Please contact your Dolphin implementation team before activating this option  |
| WEB_ENABLE_APPLYTEMPLATE  | "X" to enable the Apply Template button for web approvals (Applies to classic web, CR and ER)  |
| WEB_ENABLE_FORWARD        | "X" to enable the Forward button   |



|                        |  |
|------------------------|--|
| WEB_ENABLE_GL_TAB      | "X" to enable GL tab for PO entries  |
| WEB_ENABLE_HELPFRAME   | "X" to Auto display HELP on web CR   |
| WEB_ENABLE_IMAGEFRAME  | Enable Image display on separate frame on same web page  |
| WEB_ENABLE_MYSETTINGS  | Enable MySettings Button   |
| WEB_ENABLE_PAYEEDETAIL | 'X' to enable the Payee Details tab on the payment request screen  |
| WEB_ENABLE_REJ2LAST    | Enable "Reject to Last" button   |
| WEB_ENABLE_SUBSTATUS   | Enable sub-status popup during approval  |
| WEB_FETCH_CCFROM       | Default the co. code field in header and coding line (when blank) from this field. Possible value so far: 'KOSTL'  |
| WEB_FILTER_VVALU       | 'X' to filter the T07 entries to those where the VVALU contains 'web', 'Web', or 'WEB'   |
| WEB_FLDDESC_PHKIDNO    | <p>The text description for the field KIDNO in the detail screen on the web.</p> <p><i>In general any field description text can be indicated by WEB_FLDDESC_PH&lt;fieldname&gt; entry in T08 table.</i></p>   |
| WEB_FORWARD_LOOP       | When a web user selects next agent via the "forward" button, the record will come back to sender after next agent Approves the record  |
| WEB_FORWARD_STATUS     | The sub-status value assigned to "Forward" button on web. Existence of this entry activates the button. When the recipient of the forwarded record approves, status 61 is removed and replaced with this sub-status.                                 |
| WEB_HELP_LINK_DETAIL   | URL to the client specific help documentation for PTS AP Detail screen. This is only required when using custom help documents. Custom help files may be hosted outside the NetWeaver (Sharepoint, other internal <small>directories, etc.</small> ) |



|                      |   |
|----------------------|---|
| WEB_HELP_LINK_SEARCH | URL to the client specific help documentation for PTS AP Search screen. This is only required when using custom help documents. Custom help files may be hosted outside the NetWeaver (Sharepoint, other internal directory, etc.)  |
| WEB_HIDE_BUKRSSL     | <p>Hide Company Code field for browser only. This is for the selection screen on web only.</p> <p><i>In general, header tab field can be hidden by adding WEB_HIDE_&lt;fieldname&gt;SL entry in T08 table for your project. Refer to T01 table for all possible line fields.</i></p>  |
| WEB_HIDE_1_BUKRSSL   | <p>Hide Company Code field for <b>tablets</b> only. This is for mobile application add-on only.</p> <p><i>In general, header tab field can be hidden by adding WEB_HIDE_1_&lt;fieldname&gt;SL entry in T08 table for your project. Refer to T01 table for all possible line fields.</i></p>                                 |
| WEB_HIDE_2_BUKRSSL   | <p>Hide Company Code field for <b>mobile phones</b> only. This is for mobile application add-on only.</p> <p><i>In general, header tab field can be hidden by adding WEB_HIDE_2_&lt;fieldname&gt;SL entry in T08 table for your project. Refer to T01 table for all possible line fields.</i></p>                           |
| WEB_HIDE_ACTIVITYPL* | <p>Hide Activity field in -"Invoice" line tab for PO invoices on web. (See following screen shot)<br/>This will also control the PO details grid in the SAPGUI detail screen</p> <p><i>In general, any PO lines tab field can be hidden by adding WEB_HIDE_&lt;fieldname&gt;PL entry in T08 table for your project.</i></p> |



|                                    |  |
|------------------------------------|--|
| WEB_HIDE_ACTIVITY <del>PLA</del> * | <p>Hide Activity field in PO account assignment line tab.</p> <p><i>In general, any PO account assignment tab field can be hidden by adding WEB_HIDE_&lt;fieldname&gt;PLA entry in T08 table for your project.</i></p>   |
| WEB_HIDE_ACTIVITY <del>POL</del> * | <p>Hide Activity field in PO Based line tab.</p> <p><i>In general, any PO based line tab field can be hidden by adding WEB_HIDE_&lt;fieldname&gt;POL entry in T08 table for your project.</i></p>  |
| WEB_HIDE_ACTIVITY <del>SEL</del> * | <p>Hide Activity field in SE line tab.</p> <p><i>In general, any SE line tab field can be hidden by adding WEB_HIDE_&lt;fieldname&gt;SEL entry in T08 table for your project.</i></p>  |
| WEB_HIDE_AUFNR <del>PP</del> *     | <p>Hide Internal Order# field in posted document line-item coding.</p> <p><i>In general, any posted document line table field can be hidden by adding WEB_HIDE_&lt;fieldname&gt;PP entry in T08 table for your project. Refer to T11 table for all possible line fields.</i></p> |
| WEB_HIDE_AUFNR <del>T</del> *      | <p>Hide Internal Order# field in line-item coding for non-PO invoices.</p> <p><i>In general, any coding table field can be hidden by adding the WEB_HIDE_&lt;fieldname&gt;T entry in T08 table for your project. Refer to T11 table for all possible line fields.</i></p>        |
| WEB_HIDE_AUFNR <del>TF</del> *     | <p>Hide Internal Order# field in posted line-item coding.</p> <p><i>In general, any posted document line table field can be hidden by adding the WEB_HIDE_&lt;fieldname&gt;TF entry in T08 table for your project. Refer to T11 table for all possible line fields.</i></p>      |



|                      |  |
|----------------------|--|
| WEB_HIDE_EMAIL       | Disable E-Mail button on detail page   |
| WEB_HIDE_EXIT        | Disable Exit button on all pages   |
| WEB_HIDE_HELP        | Disable Help button on all pages   |
| WEB_HIDE_IHNAME1     | <p>Hide NAME1 field in Posted SAP record header tab.</p> <p><i>In general, any Posted SAP record header tab field can be hidden by adding WEB_HIDE_IH&lt;fieldname&gt; entry in T08 table.</i></p>                     |
| WEB_HIDE_IMAGE_URLSL | Hide Image URL. This is for mobile application only.   |
| WEB_HIDE_MENGEAAM    | <p>Hide Menge field in pop up template table</p> <p><i>In general, any table field can be hidden by adding WEB_HIDE_&lt;fieldname&gt;AAM entry in T08 table</i></p>  |
| WEB_HIDE_PDFSL       | Active and 'X' to hide the link to the document in the search results list.  |
| WEB_HIDE_PHVVALU1    | <p>Hide VVALU1 field in PTS record header tab.</p> <p><i>In general, any PTS header tab field can be hidden by adding WEB_HIDE_PH&lt;fieldname&gt; entry in T08 table.</i></p>   |
| WEB_HIDE_POVPURCHORG | <p>Hide PurchOrg field in PO record header tab.</p> <p><i>In general, any PO header tab field can be hidden by adding WEB_HIDE_PO&lt;fieldname&gt; entry in T08 table.</i></p>   |
| WEB_HIDE_REJECT      | Hide the Reject button   |
| WEB_HIDE_VVALU1\$    | <p>Hide VVALU1 field in PTS Search Application.</p> <p><i>In general, any search field can be hidden by adding WEB_HIDE_&lt;fieldname&gt;S entry in T08 table. Refer to T01 table for all possible fieldnames.</i></p> |
| WEB_LIMIT_SEARCH     | Value = PART_OF_CHAIN or PART_OF_COST_CENTER. Active to secure access for SAP and non-SAP web users to PTS records on the web.   |



|                           |   |
|---------------------------|---|
| WEB_LINEITEM_TEMPLATE     | URL for excel template to be used for classic web excel upload.   |
| WEB_LOGO_SRC              | <p>Source for logo. Set it to "null" if Dolphin logo is not to be shown. Set it to ~SAPIcons&lt;image file name.gif or jpg&gt; to set it to your company's logo (assuming logo file exists on J2EE server path:</p> <p>\\&lt;server&gt;\saploc\&lt;SID&gt;\&lt;Instance&gt;\j2ee\cluster\server0\temp\webdynpro\web\sap.com\tc~wd~dispwda\global\sapicons</p> <p>For NW 7.3:<br/> \\&lt;server&gt;\saploc\&lt;SID&gt;\&lt;Instance&gt;\j2ee\cluster\apps\sap.com\tc~wd~dispwda\servlet_jsp\webdynpro\resources\sap.com\tc~wd~dispwda\root\global\sapicons</p> |
| WEB_MAX_FILE_SIZE         | This setting limits the size of files that can be attached on the web. Recommended default is active with 1000000 (1MB)   |
| WEB_MAX_OVS_HITS          | Defines the maximum size of the returned rows for the OVS (drop down) searches  |
| WEB_NOTES_OPT_ACCEPT      | "X" to make notes optional when accepting   |
| WEB_NOTES_OPT_FORWARD     | "X" to make notes optional when forwarding  |
| WEB_NOTES_OPT_REJECT      | "X" to make notes optional when rejecting   |
| WEB_NOTES_OPT_REJECT2LAST | "X" to make notes optional when rejecting to last approver  |
| WEB_NOTE_CHARSET          | Character set for encoding Notes (TCP00A maps to code page), default to UTF-8   |
| WEB_ONLOAD_MYAPPROVALS    | When active, the UI5 web link will open to My Approvals search results  |
| WEB_OVS_AUFNR             | Enable match-code search on line item coding block  |
| WEB_OVS_AWSYS             | Enable match-code search on logical system field in PTS Header tab  |
| WEB_OVS_BANKKEY           | Enable match-code search on bank key field  |
| WEB_OVS_BUKRS             | Enable match-code search on co.code# field in PTS Header tab  |



|               |  |
|---------------|--|
| WEB_OVS_EGRUP | Enable match-code search on equity group field   |
| WEB_OVS_FISTL | Enable match-code search on funds center field in line item coding block                       |
| WEB_OVS_FKBER | Enable functional area dropdown on line-item coding block                                      |
| WEB_OVS_GEBER | Enable match-code search on funds field in line item coding block                              |
| WEB_OVS_GLACC | Enable G/L dropdown on line-item coding  |
| WEB_OVS_GSBER | Enable business area dropdown on line-item coding block  |
| WEB_OVS_KBLNR | Enable earmarked fund code dropdown on line-item coding block                                  |
| WEB_OVS_KOSTL | Enable cost center dropdown on line-item coding block  |
| WEB_OVS_LIFNR | Enable match-code search on vendor# field in Payment Request application                       |
| WEB_OVS_MWSKZ | Enable tax code dropdown on line-item coding block   |
| WEB_OVS_NPLNR | Enable network dropdown on line-item coding block  |
| WEB_OVS_PERNR | Enable personnel number dropdown on line-item coding block                                     |
| WEB_OVS_PPRCT | Enable partner profit center dropdown on line-item coding on Payment Request and detail screen |
| WEB_OVS_PRCTR | Enable profit center dropdown on line-item coding on Payment Request and detail screen         |
| WEB_OVS_PROJK | Enable WBS dropdown in line-item coding block  |
| WEB_OVS_RECID | Enable Recovery Indicator field dropdown in line-item coding block                             |
| WEB_OVS_RZAWE | Enable match-code search on payment method# field in PTS Header tab                            |
| WEB_OVS_SGENR | Enable Building Number dropdown on line-item coding block                                      |
| WEB_OVS_SGRNR | Enable Property Number dropdown on line-item coding block                                      |



|                      |  |
|----------------------|--|
| WEB_OVS_SWENR        | Enable Site Number dropdown on line-item coding block  |
| WEB_OVS_TXJCD        | Enable tax jurisdiction code dropdown on line-item coding block  |
| WEB_OVS_VBEL2        | Enable Sales Document dropdown on line-item coding block   |
| WEB_OVS_VBUND        | Enable Trading Partner Company ID dropdown on line-item coding block   |
| WEB_OVS_VNAME        | Enable Joint Venture dropdown on line-item coding block  |
| WEB_OVS_VORNR        | Enable Activity dropdown on line-item coding block   |
| WEB_OVS_VVALU        | Enable VVALU dropdown in PTS Header tab  |
| WEB_OVS_WBS          | Enable WBS element dropdown on line-item coding block  |
| WEB_OVS_XREF1        | Enable XREF1 dropdown on line-item coding block  |
| WEB_PREVIEW_PDF_FORM | See Appendix B for Check Request for details   |
| WEB_PTSAAPP_URL      | PTS WebApp Search screen URL   |
| WEB_READONLY_BUKRST  | <p>Make company code field read-only in line-item coding for non-PO invoices.</p> <p><i>In general, any coding table field can be made read only by adding WEB_READONLY_&lt;fieldname&gt;T entry in T08 table for your project. It is possible that previous table may not include all possible line fields. Refer to T11 table for all possible line fields</i></p> |
| WEB_REQD_GLACCT      | <p>Make G/L account line coding field required on web.</p> <p><i>In general, any coding table field can be made required by adding WEB_REQD_&lt;fieldname&gt;T entry in T08 table. It is possible that previous table may not include all possible line fields. Refer to T11 table for all possible line fields</i></p>  |



|                          |   |
|--------------------------|---|
| WEB_RFC_USER             | Used in PO BAPI enhancement to call RFC to other AWSYS  |
| WEB_SHORT_NAME           | "X" to clear all text including and following the @. So, that the userid will match the T09 table entries when the fully qualified userid is used to validate the SAP user. |
| WEB_SORT_ORDER           | A (ascending) or D (descending) for sort order of PTS Records in Web Search. D is default if this entry is not defined.   |
| WEB_SUBSTITUTE_DISABLE   | 'X' to disable substitution entry from mySettings   |
| WEB_SUBS_DATES_ENABLE    | 'X' to enable effective date fields on substitution for in mySettings   |
| WEB_SUBS_LEVEL_CHECK     | 'X' for the system to check the substitute's approval level and if the level is found lower than the approver's prevent the substitution                                    |
| WF_AUTO_DISP_NOTES       | 'X' for the web to automatically display image notes as a popup on the PTS detail screen during approval  |
| Soft Escalation Settings | Refer to next section for soft escalation settings  |

Following are screen shots of the various sections affected by the WEB\_HIDE\* values:

WEB\_HIDE\_PD<fieldname> and WEB\_REQD\_PD<fieldname>

Possible fields for WEB\_HIDE\_PD<fieldname> and WEB\_REQD\_PD<fieldname>:  
 Name, Rep\_Name, Name\_4, State, Name\_3, City, Region, Postl\_Code, Country, BANK, BANK\_CTRY, BANK\_ACCT, BANK\_NO, INSTR\_KEY, CTRL\_KEY, PO\_BOX, STREE2

WEB\_HIDE\_<fieldname>PLA



| Line Item Information |         |                |                       |       |            |         |             |
|-----------------------|---------|----------------|-----------------------|-------|------------|---------|-------------|
|                       | Invoice | Purchase Order | PO Account Assignment |       |            |         |             |
|                       | Item    | G/L Acct       | Cost Ctr              | Order | Profit Ctr | Network | WBS element |
|                       | 00010   | 891000         |                       |       |            |         |             |
|                       |         |                |                       |       |            |         |             |
|                       |         |                |                       |       |            |         |             |

Possible fields for WEB\_HIDE\_<fieldname>PLA: Activity, Amt, Costctr, Glacct, Network, Orderno, Perc, Poitem, Profitctr, wbs

WEB\_HIDE\_<fieldname>PL

| Line Item Information |            |                |                       |          |     |    |        |
|-----------------------|------------|----------------|-----------------------|----------|-----|----|--------|
|                       | Invoice    | Purchase Order | PO Account Assignment |          |     |    |        |
|                       | Invoice    |                |                       |          |     |    |        |
|                       | Purch.Doc. | Item           | Material              | Quantity | BUn | Tx | Amount |
|                       |            |                |                       |          |     |    |        |
|                       |            |                |                       |          |     |    |        |
|                       |            |                |                       |          |     |    |        |

Possible fields for WEB\_HIDE\_<fieldname>PL: BUKRS, ITEM, MAT, MATGRP, PLANT, PRICE, QTY, TEXT

WEB\_HIDE\_<fieldname>POL

| Line Item Information |         |                |                       |           |          |      |      |            |
|-----------------------|---------|----------------|-----------------------|-----------|----------|------|------|------------|
|                       | Invoice | Purchase Order | PO Account Assignment |           |          |      |      |            |
|                       | Item    | Short text     | PO quantity           | Net price | Material | CoCd | Plnt | Matl Group |
|                       | 00010   | Sunny Sunny 01 | 50                    | 5         |          | 5000 | 5000 | 00207      |
|                       |         |                |                       |           |          |      |      |            |
|                       |         |                |                       |           |          |      |      |            |
|                       |         |                |                       |           |          |      |      |            |

Possible fields for WEB\_HIDE\_<fieldname>POL: Ebeln, Ebelp, LFSNR, Matnr, Meins, Menge, Mwszk, Netwr

WEB\_HIDE\_<fieldname>T



**Line Item Information**

| Line Item Coding |                 |          |          |             |          |                 |      |     |      |    |            |         |  |  |
|------------------|-----------------|----------|----------|-------------|----------|-----------------|------|-----|------|----|------------|---------|--|--|
| G/L *            | G/L Description | Cost Ctr | Amount * | WBS Element | Material | Jurisdict. Code | CoCd | D/C | Text | Tx | Assignment | JAMIS # |  |  |
|                  |                 |          |          |             |          |                 |      |     |      |    |            |         |  |  |

Possible fields for WEB\_HIDE\_<fieldname>T : See table /DOL/AP\_T11

WEB\_HIDE\_<fieldname>PP

**Line Item Information**

| Posted Document |          |        |       |        |            |             |                 |           |    |            |                 |      |           |          |           |     |          |
|-----------------|----------|--------|-------|--------|------------|-------------|-----------------|-----------|----|------------|-----------------|------|-----------|----------|-----------|-----|----------|
| CoCd            | Cost Ctr | G/L    | Order | Amount | Profit Ctr | WBS Element | Functional Area | Ref.key 1 | Tx | Assignment | Jurisdict. Code | Text | Ref key 2 | Material | Bus. Area | UoM | Quantity |
| 3000            |          | 160000 |       | 200    |            | 00000000    |                 |           |    |            |                 |      | 20110322  |          |           | 0   |          |
| 3000            |          | 100000 |       | 200    |            | 00000000    |                 |           |    |            |                 |      |           |          |           | 0   |          |

Possible fields for WEB\_HIDE\_<fieldname>PP : See table /DOL/AP\_T11

WEB\_HIDE\_PH<fieldname>

**Header Information**

| PTS-AP Record  |            | Purchase Order    |                           |
|----------------|------------|-------------------|---------------------------|
| PTS-AP Record  | 00000665   | Receipt Date      | 6/7/2011                  |
| Vendor#        | 5700       | Vendor Name       | J.P.I. SYSTEMS CORP.      |
| Amount         | 1,000.00   | USD               |                           |
| Company Code   | 5000       | Due Date          | 6/7/2011                  |
| Invoice#       | TEST47     | Invoice Date      | 6/7/2011                  |
| PO#            | 4500017345 | Payment Reference |                           |
| Payment Method |            | Unplanned Freight | 0.00                      |
| Payment term   | 0001       | Custom1           |                           |
| Custom         | CAPEX      | Current Status    | Sent for Approval / Actic |
| Custom2        |            |                   |                           |

Possible fields for WEB\_HIDE\_PH<fieldname>: Any header field previous

WEB\_HIDE\_PO<fieldname>



**Header Information**

|                         |   |                                     |   |                                  |
|-------------------------|---|-------------------------------------|---|----------------------------------|
| PTS-AP Record           | Purchase Order                            | <input type="button" value="&lt;"/> | <input type="button" value="&gt;"/>       | <input type="button" value="Q"/> |
| PO Number               | 4500017345                                | Created By                          | SAMTHA                                    | <input type="button" value="C"/> |
| Document Date           | 6/7/2011 <input type="button" value="C"/> | Created On                          | 6/7/2011 <input type="button" value="C"/> | <input type="button" value="U"/> |
| Company Code            | 5000                                      | Payment Terms                       | 0001                                      | <input type="button" value="D"/> |
| Purchasing Organization | 5000                                      | Purchasing Group                    | 500                                       | <input type="button" value="I"/> |
| Vendor Name             | J.P.I. Systems Corp.                      | Currency                            | JPY                                       | <input type="button" value="S"/> |

Possible fields for WEB\_HIDE\_PO<fieldname> include: CompanyCode, CreatedBy, CreatedOn, Currency, DocumentDate, Number, PaymentTerms, PurchGroup, PurchOrg, VendorName

WEB\_HIDE\_IH<fieldname>

**Header Information**

|                |  |                                     |                                     |                                  |
|----------------|--|-------------------------------------|-------------------------------------|----------------------------------|
| PTS-AP Record  | Posted Document                            | <input type="button" value="&lt;"/> | <input type="button" value="&gt;"/> | <input type="button" value="Q"/> |
| Document Type  | KR   | Document Status                     | <input type="button" value="C"/>    | <input type="button" value="D"/> |
| Invoice Number | 1900000002                                 | Company Code                        | 3000                                | <input type="button" value="I"/> |
| Invoice Date   | 3/22/2011 <input type="button" value="C"/> | Fiscal Year                         | 2011                                | <input type="button" value="S"/> |
| Currency       | USD <input type="button" value="C"/>       | Reference Document                  | SJM_TST_1.4                         | <input type="button" value="U"/> |

Possible fields for WEB\_HIDE\_IH<fieldname> include: BELNR BLDAT, BUKRS, EBELN, LIFNR, NAME1, WAERS, WRBTR

WEB\_HIDE\_<fieldname>S



## Dolphin Process Tracking System (PTS) - Accounts Payable

[Search/Refresh] [Show Search] [My Approvals] [My Submissions] [Create Payment Request] [My Settings] [Help]

### Search Criteria

#### System Data

Tracking Record Number: From  To

Process Status: From  To

Receipt Date: From  To

Last Activity Date: From  To

#### Document Data

Vendor Number: From  To

Vendor Name: From  To

Company Code: From  To

Document Number: From  To

Fiscal Year: From  To

Reference Number: From  To

Possible fields for WEB\_HIDE\_<fieldname>S include: RECNO, STATS, RCDAT, STDAT, LIFNR, NAME1, BUKRS, BELNR, GJAHR, XBLNR, XBLDT, WAERS, WRBTR, DUEDT, POSTDAT, EKGRP, EBELN, VVALU, VVALU1, LBLNI, KOSTL, AUFNR

### 4.1.2 Approver Registration Table (Activity: Dolphin: PTS-AP Approver registration Table)

Refer to *Implementation & Maintenance Guide Process Tracking System (PTS) for SAP Accounts Payable*.

**Note:** When the approver's web access is checked, the validity period of the user is also checked.

### 4.1.3 Approver Authorization Table (Activity: Dolphin PTS-AP: Approver authorization table)

1. Select activity **Approvals → Dolphin: PTS-AP Approver Authorization**.



**Display IMG**

Existing BC Sets BC Sets for Activity Activated BC

Structure

Dolphin- PTS-AP Configuration

- Initial Activation
- ArchiveLink Settings
- Field Configuration
- General Technical Settings
- Status Codes
- Routing
- Posting Controls
- Approvals

- Dolphin: PTS-AP Approver Registration
- Dolphin: PTS-AP Group Approvers
- Dolphin: PTS-AP Approval Level Vs Amount
- Dolphin: PTS-AP Approver Authorization
- Dolphin: PTS-AP Approvals Cost Center/GL Restrictions
- Dolphin: PTS-AP Approver Cost Center Restrictions

Detail Screen Configuration

2. Use this table (/DOL/AP\_T17) to create authorizations for approvers. The table consists of Authorization object, Authorization, the object type and the Approvers User ID.

This table is used in conjunction with the AUTH\_XXX setting in the Miscellaneous Configurations table and the Approvers Registration table. The Approvers User ID can be individual userids or departments from the Approver Registration table.

For example: For web only user Caroline, in order to limit web access by company code the following entries would be required:

```
/DOL/AP_T08 AUTH_BUKRS is active with value F_BKPF_BUK  
/DOL/AP_T09 has a valid entry for userid CAROLINE  
/DOL/AP_T17 has a valid entry for userid CAROLINE
```



| Data Browser: Table /DOL/AP_T17 Select Entries 1 |       |   |              |       |          |
|--|-------|---|--------------|-------|----------|
| Check Table...                                   |       |   |              |       |          |
| Table: /DOL/AP_T17                               |       | Displayed Fields: 5 of 5 Fixed Columns: |              |       |          |
|  |       | List Width [ 5 ]                        |              |       |          |
|  | MANDT | AUTHOBJ                                 | AUTHO        | OBJTP | OBJID    |
| <input type="checkbox"/>                         | 800   | F_BKPF_BUK                              | T-I355034200 |       | CAROLINE |

## 4.2 Background Batch Job

/  
/DOL/AP\_EMAIL\_BATCH should be scheduled to run as a background job if BATCH is selected for APPROVAL\_EMAIL, ESCALATION\_EMAIL, or REMINDER\_EMAIL. This job should be scheduled to run daily before midnight. Leave current date blank and the system will set it to the current date automatically, or in the variant use sy-date which will also set it to the current date.

**Note:** When BATCH mode is selected for APPROVAL\_EMAIL, ESCALATION\_EMAIL, or REMINDER\_EMAIL, the batch e-mail is a daily digest of all of the user's activities for that day whether it previously went out in single mode or not.



### 4.3 Email Configuration

Emails are sent for approval notification, approval reminder, approval escalation and manager notification or "soft escalation" (See Soft Escalation below). Generally, emails can be sent singularly or in batch mode. Exceptions are indicated in the relevant sections below. The email's subject and body can be configured. Additionally, approval emails can include a link for web approval, or they can allow for direct approval via email, referred to as "simple email". Also, there is the added feature whereby a user can request and receive a PTS record status via email. This section will cover the configuration for each of these options.

**Note:** Refer to *Implementation & Maintenance Guide Process Tracking System (PTS) for SAP Accounts Payable for Sending Email to Vendor or Scanner when Requesting Rejection.*

#### 4.3.1 Soft Escalation

##### Overview

Soft escalation is a feature that can be activated through T08 configuration. When soft escalation is activated, two kinds of reminder emails are sent: the first regular reminder email is sent to the approver. After that, a special "cc email" is sent to both the approver and his/her manager. The default body of the cc email has one sentence: "This email is copied to your manager(s)". This text is configurable (see following section).

**Note:** Soft escalation is only available with Single mode, not with Batch mode.

##### How to activate soft escalation?

Soft escalation will be activated when the MAX\_Rem\_COPY value in /DOL/AP\_T08 is set to a number greater than 0. The ADD\_MANAGER\_AT\_TOP setting should be deactivated.

##### How are regular emails sent with soft escalation activated?

The regular approval and first reminder emails will be sent in the same manner with or without soft escalation activated. Each approver will get one initial email, followed by up to a certain number of reminder or reminder copy emails, and this maximum number of reminders to be sent to an approver is determined by T08's MAX\_Rem value. When this max number is reached, the next approver in the chain will get one initial email, followed by the same maximum number of reminders. This cycle repeats itself with every level approver, including the last approver. The PTS record is then escalated (returned) to AP.



With soft escalation, an option exists to terminate this cycle before the last approver. When T08's STOP\_Rem\_WITH\_CC value is set to 'X', the regular reminder emails will be stopped when all the cc emails have been sent.

#### How are cc emails sent?

When the approver gets his/her initial email and first reminder emails, no cc emails are sent.

Starting from the 2<sup>nd</sup> reminder, a cc email is sent to the approver and his/her immediate manager (1<sup>st</sup> level manager), rather than the normal reminder email. The maximum number of cc emails sent for an approver at any level is determined by the T08's MAX\_Rem\_COPY value.

CC emails can be copied to the managers in the hierarchy above the approver. The maximum number of levels copied is determined by the T08's MAX\_Rem\_COPY\_LEVEL value.

For example, the following T08 configuration:

| Name               | Value | Note  |
|--------------------|-------|---|
| DEADLINE           | 7200  | 2 hours   |
| MAX_Rem            | 7     | Up to 5 reminders will be sent to the approver. |
| MAX_Rem_COPY       | 3     | 2 cc emails sent to each level of manager.      |
| MAX_Rem_COPY_Level | 2     | 2 levels of managers will be copied to.         |

The following will happen:

| Deadline | Approver                                     | 1 <sup>st</sup> Level Manager | 2 <sup>nd</sup> Level Manager |
|----------|--|-------------------------------|-------------------------------|
| Start    | Initial email                                |                               |                               |
| 2 hrs    | 1 <sup>st</sup> Reminder                     |                               |                               |
| 4 hrs    | CC Email                                     | CC Email 1-1                  |                               |
| 6 hrs    | CC Email                                     | CC Email 1-2                  |                               |
| 8 hrs    | CC Email                                     | CC Email 1-3                  |                               |
| 10 hrs   | CC Email                                     | CC Email 2-1                  | CC Email 2-1                  |
| 12 hrs   | CC Email                                     | CC Email 2-2                  | CC Email 2-2                  |
| 14 hrs   | CC Email                                     | CC Email 2-3                  | CC Email 2-3                  |
| 16 hrs   | Escalate to the next level approver or to AP |                               |                               |

**Note:** The same cycle will happen for the next level approver.



Note the relationship of the three T08 values: MAX\_Rem, MAX\_Rem\_COPY and MAX\_Rem\_COPY\_LEVEL. The previous table shows that in order for all cc mails to be sent, MAX\_Rem should be set to a value that equals MAX\_Rem\_COPY \* MAX\_Rem\_COPY\_LEVEL + 1.

#### **How to stop reminders when all emails have been sent?**

If the previous T08 settings are changed so that MAX\_Rem = 8, and the choice is to not have any reminder email sent after CC Email 2-3 is sent, simply set the T08 'STOP\_Rem\_WITH\_CC' value to 'X'.

#### **What to do with more unique requirements?**

The calculation formula listed in the previous section is the standard offer in terms of soft escalation, and is implemented as a function module: /DOL/AP\_GET\_CC\_MANAGERS. If a different formula is required, a custom function can be developed, and the name can be entered in the value for T08's CC\_MANAGER\_FUNCTION\_EXIT.

### **4.3.2 E-Mail Text Maintenance**

The language of the e-mail body and subject for both original and reminder e-mails is configurable in PTS. There are two methods by which this can be accomplished: Standard Text (SO10) and MIME (SMW0).

#### **4.3.2.1 Standard Text (SO10)**

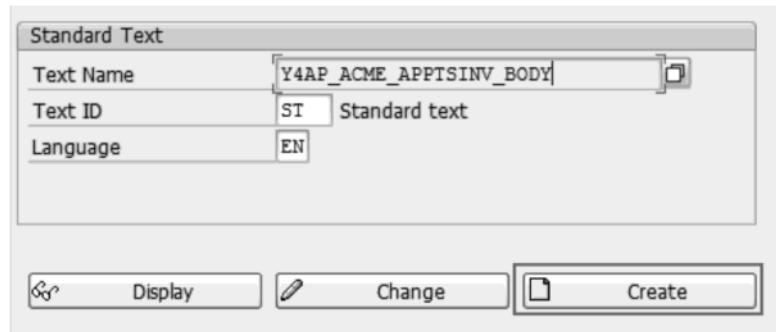
This is based on standard text concept where text is maintained for pre-defined text values, in any language supported by SAP.

Configuration: In /DOL/AP\_T08 the setting APPROVAL\_EMAIL\_FORMAT should be set to 'TEXT' or made inactive to use standard text.

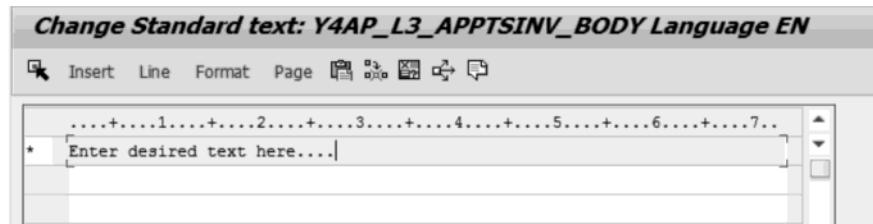
Use the following steps to create various standard texts required by PTS.

**Note:** MIME is the recommended mail format. However, the /DOL/ standard texts are supplied. If custom standard texts are desired, then follow the following steps.

Step 1. Call transaction SO10 to enter following data, click the Create button. For a full list of possible text names see section 4.3.2.4. Rather than /DOL/xxx the custom texts will be Y4AP\_XYZ\_XXX where XYZ is your custom package name. Ask your Dolphin consultant or the Dolphin Support Center for the proper naming convention for your company.



Step 2. Enter your custom text:



Step 3. Click the Save button.

#### 4.3.2.2 Transport of Standard Text

When saving a new standard text or changing an existing text, there is no prompt for transport request. Either create the standard text in the new system or transport it. Standard texts can be transported in the following manner:

1. Create a customizing transport request using transaction SE10.
2. Open the report program RSTXTRAN, and enter the customizing task (under the customizing request) in the input field Name of correction. Enter the standard text's object, name, ID, and language in the following



input fields. Then click the Execute button. (If you have multiple standard texts to transport, you can enter something like '/DOL/AP\*' in the name field. This will create a list of all standard texts whose names start with "/DOL/AP".)

3. Make sure to check all those that you want to transport and uncheck those that you do not. Then click the continue icon, and then the "Trsfr texts to corr." Button.
4. Answer "YES" in the following question "Transfer texts to the correction?" If successful, the system will indicate so.
5. The remaining procedures are the same as those for a regular transport request.

For more details, see SAP Help document and SAP Note 3355.

#### 4.3.2.3 MIME (SMW0)

Mime texts are also available as an alternative to maintaining standard texts for email content. Using MIME templates allows more flexibility in content and formatting. MIME is the recommended email format.

Configuration: In /DOL/AP\_T08 the setting APPROVAL\_EMAIL\_FORMAT set to active with value 'MIME' will use the web template for the email texts instead of standard text. All other settings will default to the standard text.

**Note:** /DOL/ standard texts are supplied. If custom standard texts are desired, then follow the following steps.

- 1) Custom templates can be created via transaction SMW0. Rather than /DOL/xxx the custom texts should be named Y4AP\_XYZ\_xxx where XYZ is your custom package name. Ask your Dolphin consultant or the Dolphin Support Center for the proper naming convention for your company.





### SAP Web Repository: Object selection

HTML templates for WebRFC

|                    |                       |
|--------------------|-----------------------|
| Package            | /DOL/APWEB            |
| Object name        | /DOL/APPTSINV_BODY to |
| Object description | to                    |

~wwwtmp.HTM - Notepad

```
<HTML>
<BODY>
You have an invoice from vendor &T01-NAME1& for amount Z5 that requires your
attention due to the following reason:<br>
<b>Z6</b>
<br>

<br>Upon review, please accept or reject the document.
<br>

<br>For approvals that do not require coding you can use the links below
and respond by email. <a href="Y2">View Image</a>
<a href="mailto:Y1?subject=APPROVE:Z1&body=Notes:>Approve</a>
<a href="mailto:Y1?subject=REJECT:Z1&body=Notes:>Reject</a>
<a href="mailto:Y1?subject=REJECTLAST:Z1&body=Notes:>Reject to Last</a>
<br>
<br>
&T11&
<br>
<br>When responding by e-mail, do not alter the e-mail address or
subject, however you can provide any notes for AP in the e-mail body.
<br>
<br>If the document does not have any PO associated, please fill in the
required cost center number/order number and general ledger account
(G/L) number in the email body. If you reject the invoice please include the
reason in the email body.
<br>

<br>Please respond within 3 days. Compliance with Corporate Policies is
required when approving an invoice.
<br>
<br>For web access use the following link to view PTS record &T01-RECNO&:
<a href=
Z2
>Web Approval</a>
<br>
<br>For further help, click on any of the "Help" buttons on the PTS
Screens or use the <a href="http://web_approval_help@ourcompany.com">
```

- 2) Maintain the body in your preferred editor and upload it back.

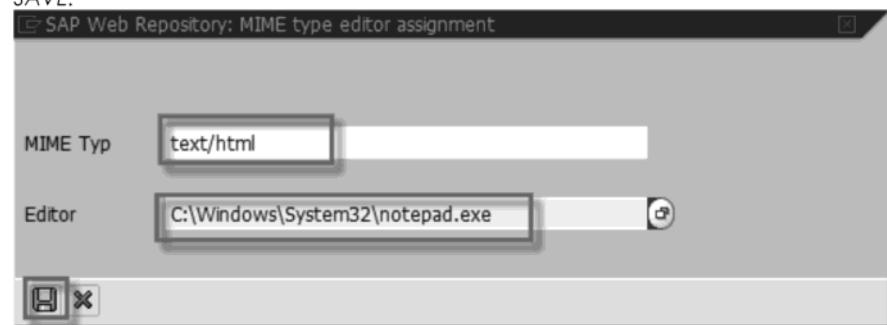


The first time SMW0 is used, a MIME editor will have to be assigned. From the SMWO SAP Web Repository: Object Display screen, choose *Settings -> Assign MIME editor*.

The screenshot shows the SAP Web Repository interface. The menu bar has 'Settings' selected. A context menu is open over an object named 'SAP Web Repository'. The menu options are: 'Assign MIME editor' (highlighted), 'Delete assignments', and 'Maintain MIME types'. Below the menu, there is a table titled 'Obj.type' with one row: 'HTML templates for WebRFC'. The table contains three columns: Obj. name, Pack., and Date. The first row's Obj. name is '/DOL/APPTSINVES\_BODY', Pack. is '/DOL/APWEB', and Date is '02/29/2012'. The Description column shows the body of the invoice.

| Obj. name            | Pack.      | Date       | Description                      |
|----------------------|------------|------------|----------------------------------|
| /DOL/APPTSINVES_BODY | /DOL/APWEB | 02/29/2012 | Body of regular invoice appro... |

Enter the *MIME type* as *text/html* and give the path of the editor you wish and *SAVE*.



#### 4.3.2.4 Text Names

The following table provides for a list of all standard /DOL/ texts and templates.



| Obj. name                 | Pack.      | Date       | Description  |
|---------------------------|------------|------------|--|
| /DOL/APPTSADHOC_BODY      | /DOL/APWEB | 19.07.2016 | Body of adhoc email  |
| /DOL/APPTSADHOC_SUB       | /DOL/APWEB | 19.07.2016 | Subject of adhoc email   |
| /DOL/APPTSError           | /DOL/APWEB | 22.10.2015 | Body of Status Update  |
| /DOL/APPTSError_Sub       | /DOL/APWEB | 12.11.2015 | Subject of Simple email error                                    |
| /DOL/APTSINVES_BODY       | /DOL/APWEB | 23.04.2014 | Body of regular invoice approval escalation emails               |
| /DOL/APTSINVES_BODY_EM    | /DOL/APWEB | 23.04.2014 | Body of escalation notifications for simple e-mail               |
| /DOL/APTSINVES_SUB        | /DOL/APWEB | 25.11.2014 | Subject of regular invoice approval escalation emails            |
| /DOL/APTSINV_BODY         | /DOL/APWEB | 23.04.2014 | Body of regular invoice approval notifications                   |
| /DOL/APTSINV_BODYBT       | /DOL/APWEB | 23.04.2014 | Body for batched e-mail  |
| /DOL/APTSINV_BODYBT_EM    | /DOL/APWEB | 16.11.2015 | Body for batched with simple e-mail approval                     |
| /DOL/APTSINV_BODYBT_EM_ES | /DOL/APWEB | 29.06.2015 | Test Spanish extension   |
| /DOL/APTSINV_BODYCC       | /DOL/APWEB | 20.01.2016 | Body for copied e-mail (soft escalation)                         |
| /DOL/APTSINV_BODYREM      | /DOL/APWEB | 23.04.2014 | Body of reminder notifications for regular invoices              |
| /DOL/APTSINV_BODYREM_EM   | /DOL/APWEB | 20.01.2016 | Body of reminder notifications for simple e-mail                 |
| /DOL/APTSINV_BODY_EM      | /DOL/APWEB | 17.11.2015 | Body of regular invoice approval notifications for simple e-mail |
| /DOL/APTSINV_BODY_EM_ES   | /DOL/APWEB | 29.06.2015 | Test spanish text for single email                               |
| /DOL/APTSINV_SUB          | /DOL/APWEB | 04.02.2015 | Subject of regular invoice approval notifications                |
| /DOL/APTSINV_SUBBT        | /DOL/APWEB | 29.03.2013 | Subject for batched e-mail                                       |
| /DOL/APTSINV_SUBCC        | /DOL/APWEB | 20.01.2016 | Subject for copied e-mail (soft escalation)                      |
| /DOL/APTSINV_SUBREM       | /DOL/APWEB | 01.03.2016 | Subject of reminder notifications for regular invoices           |
| /DOL/APPTSRV_BODY         | /DOL/APWEB | 30.12.2015 | Vendor Email Body  |
| /DOL/APPTSRV_BODY_DE      | /DOL/APWEB | 02.08.2016 | Vendor Email Body German   |
| /DOL/APPTSRV_SUB_C        | /DOL/APWEB | 29.12.2015 | Vendor credit subject  |
| /DOL/APPTSRV_SUB_I        | /DOL/APWEB | 29.12.2015 | Vendor invoice subject   |
| /DOL/APPTSSA_BODY         | /DOL/APWEB | 23.04.2014 | Body of service acceptance notifications                         |
| /DOL/APPTSSA_BODYREM      | /DOL/APWEB | 23.04.2014 | Body of reminder notifications for service acceptance            |
| /DOL/APPTSSA_BODYREM_EM   | /DOL/APWEB | 20.01.2016 | Body of reminder notifications for service acceptance            |
| /DOL/APPTSSA_BODY_EM      | /DOL/APWEB | 30.06.2015 | Body of Service entry acceptance notification for simple e-mail  |
| /DOL/APPTSSA_SUB          | /DOL/APWEB | 23.04.2014 | Subject of service acceptance notifications                      |
| /DOL/APPTSSA_SUBREM       | /DOL/APWEB | 20.01.2016 | Subject of reminder notifications for service acceptance         |
| /DOL/APPTSSE_BODY         | /DOL/APWEB | 23.04.2014 | Body of Service entry acceptance notification                    |
| /DOL/APPTSSE_BODY_EM      | /DOL/APWEB | 30.06.2015 | Body of Service entry acceptance notification for simple e-mail  |
| /DOL/APPTSSE_SUB          | /DOL/APWEB | 23.04.2014 | Subject of Service entry acceptance notification                 |
| /DOL/AP_EMAIL_CC_BODY     | /DOL/APWEB | 29.02.2016 | Dolphin AP : Text for the CC email body.                         |

**Note:** If BATCH mode is selected, Batch emails use the same template for approval, reminder, and escalation and everything is included on the email whether it may have previously gone out in single mode or not.

Follow these instructions to create standard texts in other languages (e.g. Japanese, Korean, Spanish, etc.) for SO10 and SMW0:

**SO10:** The Text Names and Text ID would be the same, the only difference when entering data on the SO10 initial screen would be the language. For Japanese, select 'JA'; for Korean, select 'KO'.

For example:



**Standard Text: Request**

|  |  |
|--|--|
|  |  |
|--|--|

**Standard Text**

|           |                            |
|-----------|----------------------------|
| Text Name | Y4AP_ACME_APPTSINV_BODY_JA |
| Text ID   | ST Standard text           |
| Language  | JA                         |

Display   Change   Create

Depending on your language configuration, you might need to log on to the Japanese system to create the Japanese standard texts, and the Korean system for the Korean texts.

**SMWO:** To maintain a different language, create a new object with the text name suffixed with an underscore and the two character language key. For example to create a Spanish email body add '\_ES' to the template name so Y4AP\_XYZ\_APPTSINV\_BODY\_EM would become Y4AP\_XYZ\_APPTSINV\_BODY\_EM\_ES.

#### 4.3.2.5 Placeholders

Placeholders have a different usage depending on the email type. Pay attention to the correct locations of the placeholders. It would be advisable to check with the language translators for the correct position of placeholders. However, the placeholders themselves should not be translated.

##### Single emails

NOTE: For MIME templates, if miscellaneous entry APPROVAL\_EMAIL HOLDER is active with a value of 'X', all placeholders will be enclosed with ampersands (&).

| Placeholder | For: | Can Be Used In: | Length |
|-------------|------|-----------------|--------|
|-------------|------|-----------------|--------|



|                 |  |  |         |
|-----------------|--|--|---------|
| Z1              | PTS record number                        | Single email body and subject line     | 8       |
| Z2              | Web link to the document's detail screen | Body only                              | Max 255 |
| Z3              | Vendor name                              | Body and subject line                  | Max 35  |
| Z4              | Invoice reference number                 | Body and subject line                  | Max 16  |
| Z5              | Invoice amount                           | Body only                              | N/A     |
| Z6              | Sub status description                   | Body only                              | N/A     |
| &REM&           | Number of reminders                      | Subject line                           | N/A     |
| &SYSID&.        | System ID                                | Body and subject line (with MIME only) | N/A     |
| &TNOTE&         | PTS record notes                         | Body only (with MIME only)             | N/A     |
| &T01-FIELDNAME& | Any field in the /DOL/AP_T01 table       | Body only                              | N/A     |
| &T10&           | Approvers list from /DOL/AP_T10 table    | Body only (with MIME only)             | N/A     |
| &T11&           | Account coding                           | Body only (with MIME only)             | N/A     |

**Note:** When using Z1, Z3 and/or Z4 in the subject line, pay attention to the fact that the maximum length of the subject line is 50 characters, and a subject line longer than 50 will get truncated.

**Note:** Z1 – Z6 placeholders are not available for Vendor Emails.

#### Batch email

| Placeholder | For:  | Can Be Used In:       | Length  |
|-------------|---|-----------------------|---------|
| Z1          | Recipient name                                      | Batch email body      | Max 80  |
| Z2          | Web link to My Approvals screen                     | Batch email body only | Max 255 |
| Z3          | List of PTS records to be processed by the approver | Batch email body      | N/A     |

#### Simple email

| Placeholder | For:                          | Can Be Used In:        | Length  |
|-------------|-------------------------------|------------------------|---------|
| Y1          | Recipient address (from SO50) | Simple email body only | Max 240 |

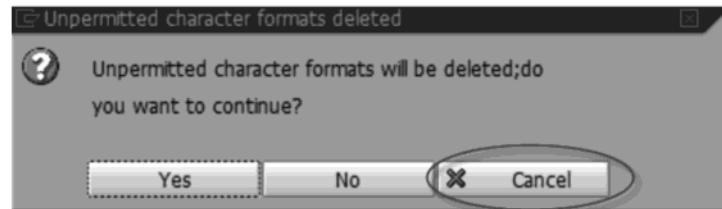


|    |                        |                        |         |
|----|------------------------|------------------------|---------|
| Y2 | Web link to view image | Simple email body only | Max 255 |
|----|------------------------|------------------------|---------|

#### Status email

| Placeholder         | For:                                  | Can Be Used In:      | Length |
|---------------------|---------------------------------------|----------------------|--------|
| &T01-<br>FIELDNAME& | Any field in the /DOL/AP_T01<br>table | Request status email | Max    |
| &T02&               | PTS record history                    | Request status email | N/A    |
| &T10&               | PTS approval Chain                    | Request status email | N/A    |
| &TNOTE&             | PTS record notes                      | Request status email | N/A    |

**Note:** When using transaction SO10 to edit the "Request status" email, the following message may appear:



Simply select 'Cancel' and continue.

#### 4.3.3 Simple E-mail Configuration

Simple Email is a feature whereby the approver will have the ability to submit his/her decision via email by selecting a link with his/her decision. If simple email is selected, a check is made to see if there is at least one line of coding. If the coding exists, the simple email template is sent. If no coding exists, the simple email is not sent, but rather the regular email is sent to force approvers to the web for the necessary coding.

#### Prerequisites

Inbound Email in SAP must be configured in order to use Simple Email Approvals. See OSS note 455140 for instructions on how to set up mail.

In transaction SO50, create the Exit rule for inbound processing of simple email approvals:



Smart Adaptable Proven™

Communication Type: Internet Mail

Recipient address:

USER@sapserver (where sapserver is the fully qualified name of the sap server, So for example, our SAP server is dolecc60a.dolphin-corp.com, so the email would be smtpuser@ dolecc60a.dolphin-corp.com)

Give a similar email address in SU01 for the SMTP user. The exchange connector will forward any mail for the SAP server to SAP where it will be picked up.)

Document Class: \*

Exit Name: /DOL/APWEB\_INBOUND\_MAIL

Configuration: Make the following settings active with the following values in /DOL/AP\_T08

AA\_SIMPLE\_EMAIL\_ACTIVE = X or GLOBAL (Required)

AA\_SIMPLE\_EMAIL\_IMAGE = 'LINK', 'ATTACH', or 'X' (defines whether the invoice image is sent as a link and attachment or both)

AA\_SIMPLE\_EMAIL\_REPLY = X (Optional)

AA\_SIMPLE\_EMAIL\_STATUS = 661 (Optional)

APPROVAL\_EMAIL = Single or BATCH (Required)

Additionally the following standard texts must be maintained:

/DOL/APTSINVES\_BODY\_EM

/DOL/APTSINV\_BODYREM\_EM

/DOL/APTSINV\_BODY\_EM

/DOL/APPTSADHOC\_BODY\_EM

Your Basis team will want to consider the cleanup procedures for inbound emails if you will use Simple Email Approvals. Refer to this SCN link:  
<http://scn.sap.com/thread/3419715>.

**Note:** For those with EHP6 support pack 7.31, in the SXPARAMS table, the param MULTIPART/ALTERNATIVE is set to HTML by default. This must be changed to "Prefer text" for the inbound emails to record notes properly.

**Note:** The port settings in the ICM parameters may need to be set to 25\$\$ and not just port 25, depending upon the SAP system set up.

#### 4.3.4 Request Status Via E-mail

A feature of the Advanced Approvals is the ability to obtain the status of a PTS record via email.



In order to request a status of a PTS record, inbound email must be configured in the SAP system. See OSS note 455140 for instructions on how to set up mail.

Configuration: The text must be maintained for /DOL/APPTSSTATUS either with SO10 or SMW0.

In transaction SO50 create the Exit rule for inbound processing of request status email approvals:

Communication Type: Internet Mail

Recipient address:

USER@sapserver (where sapserver is the fully qualified name of the sap server, for example dolecc60b.dolphin-corp.com)

(Note: This must be the email address the request is addressed to)

Document Class: \*

Exit Name: /DOL/APWEB\_INBOUND\_MAIL

#### 4.3.5 Custom wording option

The option exists with customization to have customer specific text for each template. The templates must be saved with the prefix Y4AP\_ or Y4AP\_XXX\_ where XXX is the project name. Under this naming convention, the prefix is followed by the core template name, followed by \_EM (if simple email is selected), followed by \_ZZ (where ZZ is the selected language). For example for project DOL, a template could be customized and named Y4AP\_DOL\_APPTSINV\_BODY\_EM\_EN. If a particular language text is not maintained, the system will try to use the default language English (EN). Thus, the customer is expected to maintain at least the English version.

| Prefix   | Core Name     | Suffix 1 – Simple Email link when active | Suffix 2 – Language Key |
|----------|---------------|--|-------------------------|
| Y4AP_    | APPTSINV_BODY |  | DE                      |
| Y4AP_XXX | APPTSINV_BODY | EM                                       | EN                      |

**Note:** For custom wording the miscellaneous configuration must be active for field APPROVAL\_EMAIL\_TEMPLATE with a value of Y4AP or Y4AP\_XXX\_ where XXX is the project name.

**Note:** For simple email, the miscellaneous configuration must be active for field AA\_SIMPLE\_EMAIL\_ACTIVE with a value of 'X'.



#### 4.3.6 Reason code specific option

Custom templates can also be reason code specific. Under this configuration, a specific email text will be sent when an approval is sent with a specific status 60 sub-status. Under this naming convention, the custom prefix is followed by the core template name, followed by \_EM (if simple email is selected), followed by \_### (where ### is the specified sub-status), followed by \_ZZ (where ZZ is the selected language). The template must have a suffix equivalent to the sub-status inserted between the simple email and the language key. For example, to send a specific text in Spanish when the approval is sent with sub-status 750 "Tax Issues", the template could be customized and named Y4AP\_APPTSINV\_BODY\_EM\_750\_ES.

| Prefix   | Core Name     | Suffix 1 – Simple Email link when active | <b>Suffix 2 – Reason code</b> | Suffix 3 – Language Key, default to EN |
|----------|---------------|--|-------------------------------|--|
| Y4AP_    | APPTSINV_BODY |  | <u>750</u>                    | <u>DE</u>                              |
| Y4AP_XXX | APPTSINV_BODY | _EM                                      | <u>750</u>                    | <u>EN</u>                              |

**Note:** For custom wording, the miscellaneous configuration must be active for field APPROVAL\_EMAIL\_TEMPLATE with a value of Y4AP or Y4AP\_XXX\_ where XXX is the project name.

**Note:** For simple email, the miscellaneous configuration must be active for field AA\_SIMPLE\_EMAIL\_ACTIVE with a value of 'X'.

### 4.4 Substitution

PTS-AP's handling of approver substitutions involves a few scenarios, with different configurations. Following is a description of the three scenarios:

#### 4.4.1 Standard Approach

The standard approach allows approvers to activate their substitutes for a certain period.

**Configurations and Other Prerequisites**  
T08-CUSTOM\_SUB = 'X'.  
T08-WEB\_ENABLE\_MYSETTINGS = 'X'  
T08-WEB\_SUBSTITUTE\_DISABLE de-activated  
T08-WEB\_SUBS\_DATES\_ENABLE = 'X'.

#### Expected Behaviors



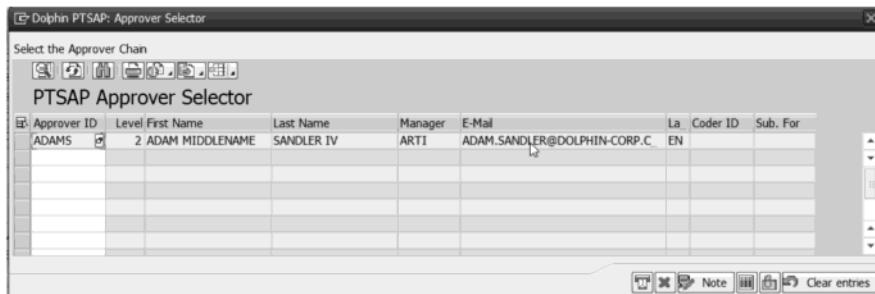
The approvers specify their substitutes on the web for a certain period. When the button My Settings is pressed, a pop-up will display the substitute status, if any, such as the substitute ID, dates and whether the substitute is active. (He/she can also specify his/her coder here (the coder functionality is not covered here)). Note: the dates and the active checkbox apply only to the substitution relationship.

Example: Suppose that today is 01/21/2011. Approver ADAMS will be out of office for a month. The approver goes to the web, opens My Settings and saves GEORGEW as his/her active substitute for the period from 01/21/2011 to 02/21/2011.

The substitution data is saved in the Approver Registration table (/DOL/AP\_T09):

| Dolphin: PTS-AP approver registration table |           |            |      |     |       |             |      |         |                 |            |                                     |            |            |
|---|-----------|------------|------|-----|-------|-------------|------|---------|-----------------|------------|-------------------------------------|------------|------------|
| Approver's ID                               | Last name | First name | De.. | T.. | Man.. | Email       | Lang | Level   | Substitute's ID | Coder's ID | Subs Active                         | Start Date | End Date   |
| ADAMS                                       | Smith     | Adams      | PTS  |     |       | ADAMS@DOLEN | 99   | GEORGEW |                 |            | <input checked="" type="checkbox"/> | 01/21/2011 | 02/21/2011 |

Thereafter, all new approval chains built during the period will send approvals to both ADAMS and GEORGEW. ADAMS will show as the approver in the selection screen and will not be replaced by GEORGEW.



What about those approval chains already built in which ADAMS is an approver, but has not yet had a chance to handle? These existing approval requests will also be seen by the active substitute. If the substitute approves the record, the substitute sub-status will appear in the history log.

When ADAMS comes back, he can de-activate the substitution relationship by going to the web's My Settings, clearing the Substitute Activate checkbox and pressing SAVE. Thereafter, the substitute will no longer see the original approver's records.

#### 4.4.2 Simplified Approach

The simplified approach allows approvers to activate their substitutes, without specifying the validity period.

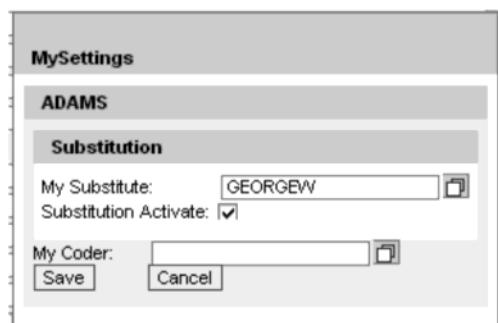
##### Configurations and Other Prerequisites

T08-CUSTOM\_SUB = 'X'.  
T08-WEB\_ENABLE\_MYSETTINGS = 'X'  
T08-WEB\_SUBSTITUTE\_DISABLE de-activated  
T08-WEB\_SUBS\_DATES\_ENABLE = de-activated  
T08-MOVE\_ON\_SUBSTITUTION = 'X'

##### Expected Behaviors

Approvers can specify their substitutes on the web. When My Settings button is opened, it will show the substitute status, if any, such as the substitute ID, and whether the relationship is active. But, My Settings does not have the date range fields.

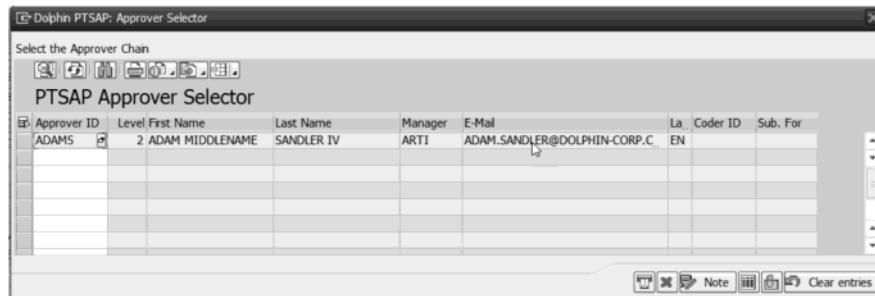
Suppose that Approver ADAMS will be out of office for a month and needs to have GEORGEW as his/her active substitute. He/she can open My Settings, enter the data as shown in the following and click SAVE:



The substitution data is saved in the Approver Registration table (/DOL/AP\_T09):

| XUSER | LNAME | FNAME | DEPT | P_M... | EMAIL | LANG | APRL... | SUBS_ID | CODER_ID | SUBS_ACTIVE | SUBS_BEG_DA... | SUBS_END_DA... |
|-------|-------|-------|------|--------|-------|------|---------|---------|----------|-------------|----------------|----------------|
| ADAMS | Smith | Adams | PTS  |        | ADAMS | E    |         | 99      | GEORGEW  | X           |                |                |

Thereafter, all new approval chains built will send records to both ADAMS and GEORGEW, that is, until ADAMS comes back and de-activates the substitution. When an AP clerk enters ADAMS as the initial approver on the Approver Selector, ADAMS will display as the approver.



As for those approval chains already built in which ADAMS is an approver, but he/she has not yet had a chance to handle, These existing approval requests will also be seen by the active substitute. If the substitute approves the record, the substitute sub-status will appear in the history log.

When ADAMS comes back, he can de-activate the substitution relationship by going to the web's My Settings, clearing the Substitute Activate checkbox and



pressing SAVE. Thereafter, the substitute will no longer see the original approver's records.

#### Standard SAP Workflow Substitution Approach

When choosing this approach, it is recommended that substitution profile "/DOL/AP" is used so that the substitution relationships set up for non-PTS-AP workflows will not impact our PTS-AP workflows, and vice-versa.

#### Configurations and Other Prerequisites

T08-SUBSTITUTE\_PROFILE = /dol/ap

Create the substitute profile by transaction code SPRO, then following the menu path: SAP Web Application Server >> Business Management >> SAP Business Workflow >> Basic Settings >> Substitute profile >> Define substitute profile:

| Subs.profile | Substitute Profile |
|--------------|--------------------|
| /DOL/AP      | Dolphin PTS-AP     |

(For those with Web Package, My Settings can be configured in the same way as described for T09-based substitution. For example, the validity date fields can be hidden.)

Maintain Substitution in SAP Business Workplace. To maintain substitute from SAP Business Workplace, use transaction code SBWP, follow the following menu path: Settings >> Workflow Settings >> Maintain Substitutes, highlight your user ID and click the Create Substitute button: (For those with Web Package, substitution can also be maintained in My Settings.)

#### Expected Behaviors

When AP enters the approver ID on the traditional Approver Selector screen, the system will not replace the approver ID with the substitute ID. When approval request is a work item to be executed in SAP R/3, the work item will be visible to both the approver and his/her substitute. In other words, both the approver and his/her substitute will see the PTS record under My Action List.

Substitutes can be created, activated or de-activated, and the validity dates can be changed on My Settings. When a substitute is maintained via My Settings, expect the following additional behavior: My Settings will display the current active substitute, if any. If the validity dates are hidden or left blank when creating a substitute, the system will automatically fill use today's date as the start date and 12/31/2999 as the end date.



#### 4.4.3 Other Options

There are a few related options available:

##### **Preventing Lower Level Substitute**

Configuration needed: T08-WEB\_SUBS\_LEVEL\_CHECK = 'X'.

With the previous configuration in place, the system will check the substitute's approval level and if the level is found lower than the approver's, will prevent the set up with an error message shown as follows:

TERRI with a lower level 03 cannot be selected as substitute;

This feature is available in both Standard and Simplified Approaches.

##### **WF Administrator Maintaining Substitute for Approver**

A workflow administrator with authorizations to maintain the Approver Registration table (/DOL/AP\_T09) can set up the substitute for any approver in case he/she forgets to do so. Use transaction code /DOL/AP\_SPRO, click the execute button for Approver Registration, and enter the substitute's data.

With standard configurations, the expected behavior is exactly the same no matter if the substitute is set up by the approver via My Settings or by the WF administrator using /DOL/AP\_SPRO.



## Appendix A: Background User Authorization for Advanced Approval

### Dolphin PTS Fiori/UI5 to SAP Communication Security

The connection between the PTS Fiori / UI5 application and ECC is established through RFC protocol. This RFC connection to ECC can be made using a single CPIC user.

The following screen shots illustrate the CPIC concept from the user perspective:

A Web user logs into the Fiori / UI5-based Dolphin web application and is authenticated, either through a manual login or via an SSO solution for Fiori / UI5 applications, should one exist. The Fiori/UI5 Advanced Approval application will display a list of invoices that are assigned to this user. In a background process, the Web Application logs into SAP as a CPIC user, however the calls to the Dolphin PTS solution in SAP contain the USER ID of the logged on individual. In this example, the user logs in as BILL.

**Log On**

E-Mail: Bill  
Password:   
Forgot password?

1. Log into portal with user ID: BILL

**Dolphin PTS AP**

2. Information records are displayed for user BILL.  
Source is SAP and invoice is assigned to BILL

**My Approvals**

Invoice: 1205060VER  
09/02/2012

Dolphin Office Supplies  
PO Box 100  
Headline, AL 77029  
Phone: 330-541-2598  
Fax: 330-541-2522  
www.dolphinofficesupplies.com

INVOICE

| Ship To:     | Customer Name:         | Address:           | City: | State: | Zip: |
|--------------|------------------------|--------------------|-------|--------|------|
| GDS UG Inc   | 1230 University Avenue | New York, NY 10019 |       |        |      |
| 555-123-4568 | Phone: 330-541-4036    |                    |       |        |      |
| 555-234-4523 | Fax: 330-541-4222      |                    |       |        |      |

Notes

Approvers

History

Attachments

Seq #

User: BILL



As shown in transaction SM04, there are only RFC connections from User CS\_CPIC, and not BILL.

**Dolphin Process Tracking System (PTS)-AP - InfoCenter 1 hits**

My Action List FI doc MM doc PO Vendor FBL1N Check WF log Agent Image Note History Change Doc Forward Reporting Hit Lists

| Stage | Message | Record   | Receipt Date | Status | Status Description  | Ref number | Ref date   | Amount     | Last Sub-status | Last Sub Status description | Last Activity |
|-------|---------|----------|--------------|--------|---------------------|------------|------------|------------|-----------------|-----------------------------|---------------|
|       |         | 00004732 | 02/25/2016   | 060    | Sent for Approval / | 1206560VER | 09/05/2012 | 185.000.00 | 720             | PO vs Invoice price issue   | 20160225      |

1. PTS Record 4732 is assigned to user BILL, however BILL is not a named SAP user.

User List

| Clnt User   | Terminal    | Transaction | Time     | Class | Type | Replicate |
|-------------|-------------|-------------|----------|-------|------|-----------|
| 800 CS_CPIC | 10.14.07.24 |             | 09.29.48 | 1     | RFC  | 0         |
| 800 CS_CPIC | 10.14.07.24 |             | 09.25.43 | 1     | RFC  | 1         |
| 800 JOHN    | pete-d530   |             | 09.20.05 | 1     | RFC  | 1         |
| 800 JOHN    | pete-d530   | SM04        | 09.30.29 | 3     | GUI  | 20        |
| 800 CS_CPIC | 10.14.07.24 |             | 11.30.19 | 1     | RFC  | 1         |
| 800 CS_CPIC | 10.14.07.24 |             | 10.37.52 | 1     | RFC  | 1         |
| 800 CS_CPIC | 10.14.07.24 |             | 11.30.19 | 1     | RFC  | 1         |

\*\*\* 7 users logged on with 9 nodes \*\*\*

2. Web interface logs in to SAP as a CPIC user (CS\_CPIC), not BILL

All actions recorded by Dolphin PTS are tagged with the User ID of the Fiori/UI5 user BILL and not the CPIC user.



### Dolphin Process Tracking System (PTS)-AP - InfoCenter 1 hits

The screenshot shows the PTS-AP - InfoCenter interface. On the left, a 'Hit Lists' table displays a single record: Stage: Message, Record: 00004732, Receipt Date: 02/25/2016, Status: Rejected, Ref number: 1206580/VER, Ref date: 09/05/2012, Amount: 185.000.00, Last sub-status: T20. A 'Display note' window is open, showing a message from 'BILL (Bill Jones)' dated 02/29/2016 21:56:33 EST: 'Please do not pay this invoice. The supplier has used the incorrect price per unit.' On the right, a detailed log table shows various system events:

| Exception Date | Time     | Status | User            | Description                            | Item |
|----------------|----------|--------|-----------------|--|------|
| 02/25/2016     | 00:48:36 | 1      | NO-TOUCH        | Validated                              |      |
| 02/25/2016     | 00:48:37 | 10     | Invoice Gateway | Received                               |      |
| 02/25/2016     | 00:48:34 | 149    | Invoice Gateway | AEI Preemptive price tolerance failure |      |
| 02/25/2016     | 00:48:34 | 177    | Invoice Gateway | Missing GR for a GRN Invoice           |      |
| 02/25/2016     | 00:48:45 | 60     | Invoice Gateway | Sent for Approval / Action             |      |
| 02/25/2016     | 00:48:46 | 600    | Invoice Gateway | Pre Approval                           |      |
| 02/25/2016     | 00:48:46 | 720    | Invoice Gateway | P-O or Invoice price issue             |      |
| 02/29/2016     | 21:56:59 | 62     | Bill Jones      | Rejected                               |      |

### Required Authorizations

Note: If communication is via a fixed RFC user, the background user needs the following authorizations. If single sign-on (SSO) is used, users will need these authorizations.

| Authorization Object                          | Activity   | Properties  |
|---|------------|---|
| <b>RFC Authorization</b>                      |            |   |
| S_RFC<br>(Authorization check for RFC access) | Execute    | <b>RFC name:</b> 0002, 0003, 3006, 3006_HRO, 1011, BDL5, BUS1001, LC01, RFC1, SDTX, SYST, SYSU, SZAK, ACC4, ACC6, ATSV, BAPI_REL, BAPT, BATG, BBPIV, CADR, LC01, MEWP, MRM_BAPI, OPTD, OPTV, RFC1, SDTX, SOA1, SOC3, SYST, SYSU, SSCV, /DOL/*, RFC2, SDIFRUNTIME, SDDO, FACI, MLBO<br><b>RFC type:</b> FUGR |
| <b>Data Access</b>                            |            |   |
| S_TABU_DIS<br>(Table Maintenance)             | Display    | <b>Authorization group:</b> &NC&, FA, FB12, FB21, FC, FC01, FC03, FC21, FCOR, KA, MA, MCMR, SC, SS, FA, MA, SA, VA<br>(&NC& 'non classified table': used for view M_KOSTN)  |
| <b>Image Access</b>                           |            |   |
| S_WFAR_OBJ                                    | 03, 04, 70 | <b>OAARCHIV Value *</b><br><b>AOOBJEKTE Values:</b> BKPF, BUS2081, LFA1 and /DOL/APPTS<br><b>OADOKUMENT Value:</b> /DOL/*   |
| <b>Substitute Setup</b>                       |            |   |
| PLOG  | *          | <b>plvar:</b> 01<br><b>infotype:</b> 1001   |



| Authorization Object   | Activity                       | Properties  |
|--|--------------------------------|---|
|  |                                | subtype: A210<br>others: *  |
| <b>File Access</b>   |                                |   |
| S_DATASET<br>(Authorization for File Access)                           | Delete                         | <b>File name:</b> Full Authorization<br><b>Program name:</b> SAPLARCHIVOBJECT |
| <b>G/L Account</b>   |                                |   |
| F_SKA1_BES<br>(G/L Account: Account Authorization)                     | Display                        | <b>Authorization group:</b> Full authorization                                |
| F_SKA1_BUK<br>(G/L Account: Authorization for Company Codes)           | Display                        | <b>Company code:</b> Full Authorization                                       |
| F_SKA1_KTP<br>(G/L Account: Authorization for Charts of Accounts)      | Display                        | <b>Chart of accounts:</b> Full Authorization                                  |
| <b>Accounting Document</b>   |                                |   |
| F_BKPF_BLA<br>(Accounting Document: Authorization for Document Types)  | Display<br>Pre-enter           | <b>Authorization group:</b> Full authorization                                |
| F_BKPF_BUK<br>(Accounting Document: Authorization for Company Codes)   | Change<br>Display<br>Pre-enter | <b>Company code:</b> Full Authorization                                       |
| F_BKPF_BUP<br>(Accounting Document: Authorization for Posting Periods) | N/A                            | <b>Authorization group:</b> Full authorization                                |
| F_BKPF_GSB<br>(Accounting Document: Authorization for Business Areas)  | Display<br>Pre-enter           | <b>Business Area:</b> Full authorization                                      |
| F_BKPF_KOA<br>(Accounting Document: Authorization for Account Types)   | Display<br>Pre-enter           | <b>Account type:</b> Full Authorization                                       |
| <b>Vendor</b>  |                                |   |



| Authorization Object                                      | Activity             | Properties  |
|---|----------------------|---|
| F_LFA1_APP<br>(Vendor: Application Authorization)         | Display              | <b>Customer and vendor:</b> Full authorization  |
| F_LFA1_BEK<br>(Vendor: Account Authorization)             | Display              | <b>Authorization group:</b> Full Authorization  |
| F_LFA1_BUK<br>(Vendor: Authorization for Company Codes)   | Display              | <b>Company code:</b> Full Authorization   |
| F_LFA1_GEN<br>(Vendor: Central Data)                      | Display              | N/A   |
| F_LFA1_GRP<br>(Vendor: Account Group Authorization)       | Display              | <b>Vendor acc. group:</b> Full Authorization  |
| <b>Transfer Price</b>                                     |                      |   |
| K_TP_VALU<br>(Transfer Price Valuations)                  | Display              | <b>Controlling area:</b> Full authorization<br><b>Valuation view:</b> Legal valuation |
| <b>Purchase Order</b>                                     |                      |   |
| M_BEST_BSA<br>(Document Type in Purchase Order)           | Display              | <b>Customer and vendor:</b> Full authorization  |
| M_BEST_EKG<br>(Purchasing Group in Purchase Order)        | Display              | <b>Customer and vendor</b> Full Authorization   |
| M_BEST_EKO<br>(Purchasing Organization in Purchase Order) | Display              | <b>Customer and vendor</b> Full Authorization   |
| M_BEST_WRK<br>(Plant in Purchase Order)                   | Display              | <b>Customer and vendor</b> Full Authorization   |
| <b>Invoice</b>  |                      |   |
| M_RECH_EKG<br>(Invoice Release: Purchasing Group)         | Display              | <b>Purchasing group:</b> Full Authorization   |
| M_RECH_SPG<br>(Invoices: Blocking Reasons)                | Change               | <b>Blocking reason:</b> Full authorization  |
| M_RECH_WRK<br>(Invoices: Plant)                           | Display<br>Pre-enter | <b>Customer and vendor</b> Full Authorization   |
| <b>Vendor</b>   |                      |   |



| Authorization Object   | Activity | Properties                                     |
|--|----------|--|
| F_LFA1_APP<br>(Vendor: Application Authorization)            | Display  | <b>Customer and vendor:</b> Full authorization |
| F_LFA1_BEK<br>(Vendor: Account Authorization)                | Display  | <b>Authorization group:</b> Full Authorization |
| F_LFA1_BUK<br>(Vendor: Authorization for Company Codes)      | Display  | <b>Company code:</b> Full Authorization        |
| F_LFA1_GEN<br>(Vendor: Central Data)                         | Display  | N/A  |
| F_LFA1_GRP<br>(Vendor: Account Group Authorization)          | Display  | <b>Vendor acc. group:</b> Full Authorization   |
| <b>Service Entry</b> (only for PTS-AP Service Entry Add- On) |          |  |
| S_TCODE  | N/A      | <b>Values:</b> ML81, ML81N                     |



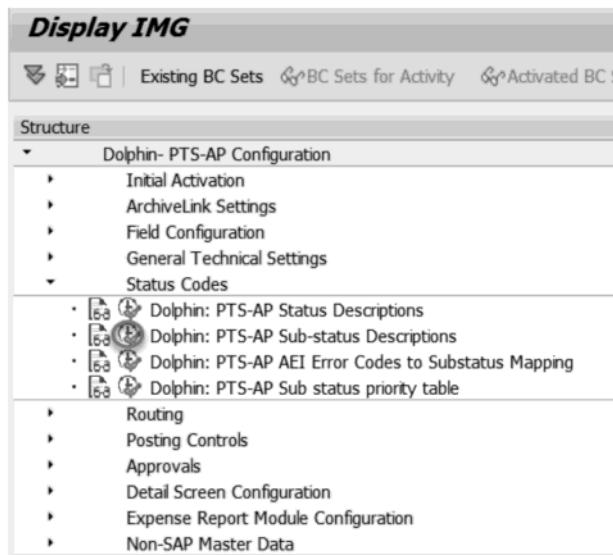
## Appendix B: Technical Guide for Payment Request

The Payment Request license key must be loaded for the Add-On to function. Transaction /DOL/LIC\_UPLOAD is used to load the license key. The key must be loaded one time in each system. Transaction code /DOL/LIC\_INFO can be used to view all loaded license keys.

Additional configuration is required for the Payment Request add-on.

### Maintain Sub-status Description Table

Select activity **Status Codes → Dolphin: PTS-AP Sub-status Descriptions**.



Set sub-statuses for core PTS-AP. Additionally, for status 60 a sub-status with 'CR' in the first text column indicates that sub-status is the default for Check/Payment Request pre-approvals.

### Maintain Miscellaneous Configurations

Select activity **General Technical Settings → Dolphin: PTS-AP Miscellaneous Configuration**



### Display IMG

The screenshot shows the SAP Fiori Display IMG interface. At the top, there are several icons and buttons, including 'Existing BC Sets' which is highlighted. Below this is a navigation bar labeled 'Structure'. Under 'Structure', there is a tree view of configuration items:

- Dolphin- PTS-AP Configuration
  - Initial Activation
  - ArchiveLink Settings
  - Field Configuration
  - General Technical Settings
    - Dolphin: PTS-AP Logical systems
    - Dolphin: PTS-AP Miscellaneous Configurations
      - Status Codes
      - Routing
      - Posting Controls
      - Approvals
      - Detail Screen Configuration
      - Expense Report Module Configuration

The Miscellaneous configurations table (/DOL/AP\_T08) is used for various PTS-AP settings in the form of name-value pairs. Following is a brief explanation of the additional settings required for the Payment Request Add-On.

| Status                    | Description  |
|---------------------------|--|
| CR_VENDOR_EMPLOYEE_CHECK  | Active with value 'X' to not allow the Payment Request creator to be the same as the employee vendor specified on the request. |
| SECURITY_ACTIVE_CR        | Special security for payment request<br>VALUE ='1' means Security check on Web   |
| WEB_ALLOWED_FORMATS       | Comma separated list of the extensions of doc types that can be attached as supporting documents in a Payment Request.         |
| WEB_CR_APPROVER_MANDATORY | Enforce entry of approver for Payment Request  |



|                           |  |
|---------------------------|--|
| WEB_CR_OVERWRITE_TEMPLATE | "X" to allow values from the account assignment model to be overwritten by the user. Note: classic web CR only   |
| WEB_CR_SIMULATE_PDF       | "X" to create and attach a PDF to the PTS record when a payment request is saved and there is no attachment  |
| WEB_DEFAULT_BLANKLINE     | "X" to default a blank coding line for the requestor to add coding. Note: classic web CR only  |
| WEB_DEFAULT_COCD          | Value = company code defaulted in the Payment Request creation screen. (Value can be overwritten by the user.) Note: classic web CR only                             |
| WEB_DEFAULT_CONTACT_TYPE  | Value = The default value for contact type in C Note: classic web CR only  |
| WEB_DEFAULT_CURRENCY      | Value = Default currency for Payment Request. (Default is blank if no value)   |
| WEB_DEF_PAYEETAB_CR       | 'X' to set the default value for contact type in CR. Note: classic web CR only   |
| WEB_DISABLE_COPY          | 'X' to disable and hide the Copy button for the Payment Request. Note: copy feature not available in ui5 CR  |
| WEB_DISABLE_EXCELTEMPLATE | 'X' to disable and hide the Excel Template button from the Payment Request. This setting will hide the button on BOTH the details screen as well as the classic web. |
| WEB_ENABLE_APPLYTEMPLATE  | Enable the Apply Template Button on the Classic Web (Applies to Web Approval, CR, and ER) Note: classic web apps only  |
| WEB_ENABLE_CR             | Enable Create CR button on CR  |
| WEB_ENABLE_HELPFRAME      | 'X' to display help screen side by side with Payment Request Note: classic web CR only   |



|                          |   |
|--------------------------|---|
| WEB_ENABLE_MYDRAFTS      | Enable My Drafts button on PTS web search screen. This enables 'My Drafts' button for both Payment Request and Expense Report.  |
| WEB_ENABLE_MYSUBMISSIONS | Enable My Submissions button on PTS web search screen. This enables 'My Submissions' button for both Payment Request and Expense Report.  |
| WEB_ENABLE_PAYEEDETAIL   | Enable the payee details tab to allow the Payment Request submitter to request payment to a one time vendor, an overnight contact, or an accounts receivable contact  |
| WEB_ENABLE_SAVEDRAFT     | Enable functionality to save a draft. This enables both Payment Request and Expense Report draft options.   |
| WEB_FLDDESC_PDNAME       | <p>The text description for the field KIDNO in the Payment Request Payee detail tab on the web.</p> <p>In general, any field description text can be indicated by WEB_FLDDESC_PD&lt;fieldname&gt; entry in T08 table.</p>                   |
| WEB_HELP_LINK_CR         | URL to the client specific help documentation for PTS AP Payment Request screen. This is only required when using custom help documents. Custom help files may be hosted outside the NetWeaver (Sharepoint, other internal directory, etc.) |
| WEB_HIDE_PDNAME          | <p>Hide NAME field in Payment Request payee details tab.</p> <p><i>In general, any payee details field can be hidden by adding WEB_HIDE_PD&lt;fieldname&gt; entry in T08 table.</i></p>   |



|                      |   |
|----------------------|---|
| WEB_PREVIEW_PDF_FORM | If active and 'X', a hotlink will be made available to allow a PDF preview of the current PTS record details as a dummy attachment on the detail screen on various web/mobile interfaces. Value can also be 'server:port' with server as the IP address.<br>Note: Output device must be maintained. |
| WEB_REQD_PDName      | Make NAME a required field in Payment Request payee details tab.<br><br><i>In general, any payee details field can be made required by adding WEB_HIDE_PD&lt;fieldname&gt; entry in T08 table.</i>  |
| WEB_REQD_PHVVALU1    | Make VVALU1 header field a required field for the Payment Request.<br><br><i>In general, any PTS Payment Request header tab field can be made required by adding WEB_REQD_PH&lt;fieldname&gt; entry in T08 table.</i>   |

#### Maintain Approver Authorization Table







This program should be run in the background to purge aged credit card records.

**Dolphin PTS-ER : Purge report for Old Credit Card Data**

|  |
|--|
| <input type="button" value=""/>  |
| <b>Enter Details:-</b>   |
| Company Code <input type="text"/> to <input type="text"/> <input type="button" value=""/>      |
| Approver's UserID <input type="text"/> to <input type="text"/> <input type="button" value=""/> |
| Age <input type="text"/>   |

### Maintain Sub-status Description Table

Select activity **Status Codes → Dolphin: PTS-AP Sub-status Descriptions**.

**Display IMG**

|  |                                 |                                 |                  |  |  |
|--|---------------------------------|---------------------------------|------------------|--|--|
| <input type="button" value=""/>  | <input type="button" value=""/> | <input type="button" value=""/> | Existing BC Sets | <input type="button" value=""/> BC Sets for Activity | <input type="button" value=""/> Activated BC S |
| <b>Structure</b>   |                                 |                                 |                  |  |  |
| Dolphin- PTS-AP Configuration  |                                 |                                 |                  |  |  |
| Initial Activation   |                                 |                                 |                  |  |  |
| ArchiveLink Settings   |                                 |                                 |                  |  |  |
| Field Configuration  |                                 |                                 |                  |  |  |
| General Technical Settings   |                                 |                                 |                  |  |  |
| Status Codes   |                                 |                                 |                  |  |  |
| • <input type="button" value=""/> Dolphin: PTS-AP Status Descriptions                  |                                 |                                 |                  |  |  |
| • <input type="button" value=""/> Dolphin: PTS-AP Sub-status Descriptions              |                                 |                                 |                  |  |  |
| • <input type="button" value=""/> Dolphin: PTS-AP AEI Error Codes to Substatus Mapping |                                 |                                 |                  |  |  |
| • <input type="button" value=""/> Dolphin: PTS-AP Sub status priority table            |                                 |                                 |                  |  |  |
| • Routing  |                                 |                                 |                  |  |  |
| • Posting Controls   |                                 |                                 |                  |  |  |
| • Approvals  |                                 |                                 |                  |  |  |
| • Detail Screen Configuration  |                                 |                                 |                  |  |  |
| • Expense Report Module Configuration  |                                 |                                 |                  |  |  |
| • Non-SAP Master Data  |                                 |                                 |                  |  |  |

Set sub-statuses for core PTS-AP. Additionally, for status 60 a sub-status with 'ER' in the first text column indicates that sub-status is the default for Expense Report pre-approvals.



### Maintain Miscellaneous Configurations

Select activity **General Technical Settings → Dolphin: PTS-AP Miscellaneous Configuration**

#### Display IMG

The screenshot shows a SAP Fiori interface for maintaining miscellaneous configurations. At the top, there are icons for back, forward, and search, followed by buttons for 'Existing BC Sets', 'BC Sets for Activity', and 'Activity'. Below this is a tree view under the heading 'Structure':

- Dolphin- PTS-AP Configuration
  - Initial Activation
  - ArchiveLink Settings
  - Field Configuration
  - General Technical Settings
    - Dolphin: PTS-AP Logical systems
    - Dolphin: PTS-AP Miscellaneous Configurations** (selected)
    - Status Codes
    - Routing
    - Posting Controls
    - Approvals
    - Detail Screen Configuration
    - Expense Report Module Configuration

The Miscellaneous configurations table (/DOL/AP\_T08) is used for various PTS-AP settings in the form of name-value pairs. Following is a brief explanation of the additional settings required for the Expense Report Add-On.

| Status                    | Description   |
|---------------------------|---|
| ENTRY_WEB_ER_SIMULATE_ATT | Active to create smartform pdf for ER   |
| ER_MAIL_FORMAT            | Indicates whether to use the template for email text (Value = MIME) or to use standard text (Inactive or active with Value = blank) for ER email  |
| ER_MAIL_TEMPLATE          | Custom template prefix to use for ER email  |
| WEB_ENABLE_APPLYTEMPLATE  | Enable the Apply Template Button on the Classic Web (Applies to Web Approval, Payment Request, and Expense Report)<br>Note: classic web apps only |



|                           |   |
|---------------------------|---|
| WEB_ENABLE_ER             | Enable Create Expense Report button on the classic web application  |
| WEB_ENABLE_MYDRAFTS       | Enable My Drafts button on PTS web search screen. This enables 'My Drafts' button for both Payment Request and Expense Report.  |
| WEB_ENABLE_MYSUBMISSIONS  | Enable My Submissions button on PTS web search screen. This enables 'My Submissions' button for both Payment Request and        |
| WEB_ENABLE_SAVEDRAFT      | Enable functionality to save a draft. This enables both Payment Request and Expense Report draft options.                       |
| WEB_ER_ADD_REPORT_FOR_APP | When active the Report For user will be added to the approval chain for expense reports   |
| WEB_ER_APPROVER_MANDATORY | Enforce entry of approver for Expense Report  |
| WEB_ER_FORCE_COUNTRY      | If active and 'X', and the header currency does not match the line currency, the line item country will be a required input     |
| WEB_ER_GLFROMWEB          | If active and 'X', the GL assignments will always be sourced from within SAP, ignoring what came (or did not come) from the web |
| WEB_ER_HIDE_CC            | "X" to hide the credit card   |
| WEB_ER_HIDE_GLACC         | "X" to hide the General Ledger Account  |
| WEB_ER_HIDE_PHDTYPZ       | "X" to hide the express flag  |
| WEB_ER_HIDE_PHRCDAT       | "X" to hide receipt date  |
| WEB_ER_OVERWRITE_TEMPLATE | If active and 'X', the items table value will be overwritten with the template values   |
| WEB_ER_REQD_CRG_TYPET     | "X" for Payment method to be required   |
| WEB_ER_REQD_EXP_AMOUNTT   | "X" for Expense Amount to be required   |
| WEB_ER_REQD_EXP_CURRENCYT | "X" for Expense Currency to be required   |
| WEB_ER_REQD_EXP_LAND1T    | "X" for Expense Country to be required  |



|                     |  |
|---------------------|--|
| WEB_ER_REQD_GLACCT  | "X" for G/L Account to be required   |
| WEB_ER_REQD_KOSTLT  | "X" for Cost Center to be required   |
| WEB_ER_REQD_PHWRBTR | "X" for header Reimbursement Amount to be required   |
| WEB_ER_REQD_SGTXTT  | "X" for Line Item text to be required  |
| WEB_ER_REQD_SPKZLT  | "X" for Expense Type to be required  |
| WEB_ER_SIMULATE_PDF | "X" to create and attach a PDF to the PTS record when an expense report is saved and there is no attachment  |
| WEB_HELP_LINK_ER    | URL to the client specific help documentation for PTS AP Expense Report screen. This is only required when using custom help documents. Custom help files may be hosted outside the NetWeaver (Sharepoint, other internal directory, etc.) |

#### Maintain Travel Expense Types

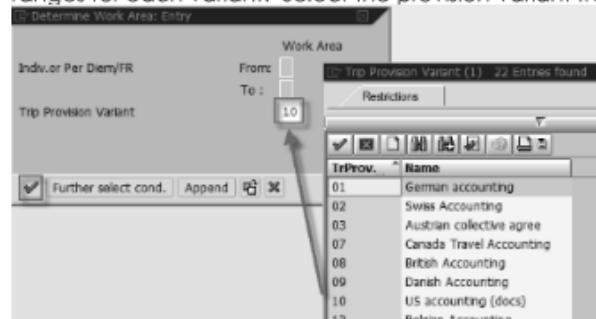
Select activity **Expense Report Module Configuration → Dolphin: PTS-AP Travel Expense Types for Receipt**



### *Display IMG*

| Structure  |  |
|--|--|
|  | Dolphin- PTS-AP Configuration  |
| ▷  | Initial Activation   |
| ▷  | ArchiveLink Settings   |
| ▷  | Field Configuration  |
| ▷  | General Technical Settings   |
| ▷  | Status Codes   |
| ▷  | Routing  |
| ▷  | Posting Controls   |
| ▷  | Approvals  |
| ▷  | Detail Screen Configuration  |
| ▷  | Expense Report Module Configuration  |
|      | Dolphin: PTS-AP Travel Expense Types for Receipt                           |
|      | Dolphin: PTS-AP Expense Type to GL Mapping                                 |
|      | Dolphin: PTS-AP Maintain User to Credit Card# Assignment                   |
|   | Dolphin: PTS-AP Assignment of Credit Card Transact. to Travel Expense Typ. |

Table V\_T706B1 lists the expense types and descriptions and the active date ranges for each variant. Select the provision variant from the drop down list.



Maintain the expense types for receipt.



### Change View "Travel Expense Types for Receipt": Overview

Expand <-> Collapse New Entries Delimit

Travel Expense Types for Receipt : US accounting (docs)

| ExpensType | Name of Exp. Ty            | Start Date | End Date  |
|------------|----------------------------|------------|-----------|
| AIR        | Airfare                    | 01/01/1995 | 12/31/999 |
| AIRP       | Airfare (paid by company)  | 01/01/1995 | 12/31/999 |
| BRFT       | Breakfast                  | 01/01/1995 | 12/31/999 |
| DINN       | Dinner                     | 01/01/1995 | 12/31/999 |
| ENT        | Entertainment              | 01/01/1995 | 12/31/999 |
| GAS        | Fuel for Private Car       | 01/01/1995 | 12/31/999 |
| HIL        | Hotel                      | 01/01/1995 | 12/31/999 |
| HTLP       | Hotel (Paid by Company)    | 01/01/1995 | 12/31/999 |
| INTA       | Airfare - Company Aircraft | 01/01/1995 | 12/31/999 |

### Maintain Table for Flat Rate Expense Types

Using SM30 maintain table V\_T70681\_A for the given provision variant. This is where per diems and other flat expense types are maintained. Select the trip provision variant from the drop down list. Note the Individual or Per Diem type is pre-selected.

| TrProv... | Name                      |
|-----------|---------------------------|
| 01        | German accounting         |
| 02        | Swiss Accounting          |
| 03        | Austrian collective agree |
| 07        | Canada Travel Accounting  |
| 08        | British Accounting        |
| 09        | Danish Accounting         |
| 10        | US accounting (docs)      |
| 12        | Belgian Accounting        |



Maintain the expense types for Per Diems and Flat Rates.

#### ***Change View "Travel Expense Types for Per Diems/Flat Rates": Overview***

Expand <-> Collapse | New Entries | Delimit |

##### Travel Expense Types for Per Diems/Flat Rates : US accounting (docs)

| ExpenseType | Travel Expense Type     | Start Date | End Date  |  |
|-------------|-------------------------|------------|-----------|--|
| FAK         | Miles/km flat rate: car | 01/01/1995 | 05/31/999 |  |
| FAKC        | Company Vehicle         | 01/01/1995 | 12/31/999 |  |
| FAKP        | Personal Vehicle        | 01/01/1995 | 12/31/999 |  |
| UBPA        | Accommodations per diem | 01/01/1995 | 12/31/999 |  |
| VERP        | Per diem for meals      | 01/01/1995 | 12/31/999 |  |
| VORK        | Cash advance            | 01/01/1995 | 12/31/999 |  |
| VORS        | Advance                 | 01/01/1995 | 12/31/999 |  |

#### Maintain Expense Types to GL Mapping

Select activity **Expense Report Module Configuration → Dolphin: PTS-AP Expense Type to GL Mapping**

##### ***Display IMG***

Existing BC Sets | BC Sets for Activity | Activated BC Sets for Activity

|                  |  |
|------------------|--|
| <b>Structure</b> | Dolphin- PTS-AP Configuration  |
| ▷                | Initial Activation   |
| ▷                | ArchiveLink Settings   |
| ▷                | Field Configuration  |
| ▷                | General Technical Settings   |
| ▷                | Status Codes   |
| ▷                | Routing  |
| ▷                | Posting Controls   |
| ▷                | Approvals  |
| ▷                | Detail Screen Configuration  |
| ▷                | Expense Report Module Configuration  |
|                  | Dolphin: PTS-AP Travel Expense Types for Receipt                           |
|                  | Dolphin: PTS-AP Expense Type to GL Mapping                                 |
|                  | Dolphin: PTS-AP Maintain User to Credit Card# Assignment                   |
|                  | Dolphin: PTS-AP Assignment of Credit Card Transact. to Travel Expense Typ. |



Table /DOL/APWEB\_ER\_GL lists the expense types per variant and maps them to the GL account to be charged. This can be specific by country and can vary for different tax codes. The table fields are described as follows.

| Field      | Data Type | Length | Decimal | Description   |
|------------|-----------|--------|---------|---|
| MOREI      | CHAR      | 2      | 0       | Trip Provision Variant as configured in the previous section  |
| SPKZL      | CHAR      | 4      | 0       | Travel Expense Type as configured in the previous section   |
| LAND1      | CHAR      | 3      | 0       | Country Key if accounting differs by country  |
| VAT        | CHAR      | 1      | 0       | Dolphin PTS-AP: VAT Flag  |
| SHKZG      | CHAR      | 1      | 0       | Debit/ Credit Indicator   |
| MWSKZ      | CHAR      | 2      | 0       | Sales Tax Code  |
| COPY_KOSTL | CHAR      | 1      | 0       | Don't Copy Cost Center (from header) Flag   |
| CALC RATE  | CURR      | 10     | 2       | Reimbursement Amount (Enterprise Specific)  |
| CALC WAERS | CUKY      | 5      | 0       | Currency Key  |
| SCGST      | CHAR      | 1      | 0       | Field Control - Entry is possible and mandatory or not, or entry is impossible and visible or invisible |
| SUB_TITLE  | CHAR      | 20     | 0       | Title   |
| GLACC      | CHAR      | 10     | 0       | G/L Account Number  |

Add From and To in the 'Title' column to activate sub-lines functionality.

#### Routing Table (Activity: Dolphin: PTS-AP Routing)

Select activity **Routing → Dolphin: PTS-AP Routing**.



### Display IMG

The screenshot shows the SAP Fiori Display IMG configuration interface. The top navigation bar includes icons for back, forward, search, and existing BC sets, along with a link to BC Sets for Fiori. The main area is titled 'Structure' and displays a tree view of configuration items under 'Dolphin- PTS-AP Configuration'. The items listed are: Initial Activation, ArchiveLink Settings, Field Configuration, General Technical Settings, Status Codes, Routing (which is expanded to show 'Dolphin: PTS-AP Routing'), Posting Controls, Approvals, and Detail Screen Configuration.

Additional entries are required in the routing table (/DOL/AP\_T06) for the Expense Report add on. The table will link the project to the trip provision variant for each company code with the role 'EX'. An entry must be made for each country code trip provision combination. See below for an example entry.

| RES Project ID | Sequence number | Role | Company Code | Spender | Spender | Currency | Amount | Doc. type | Version | Doc. type credit | Variable | Expense processing | Doc. type AP | Date | Object Type | Agent ID | Logical Spender |
|----------------|-----------------|------|--------------|---------|---------|----------|--------|-----------|---------|------------------|----------|--------------------|--------------|------|-------------|----------|-----------------|
| DNG            | 0361            | EX   | 0000         |         |         |          | 0.00   |           |         |                  |          |                    |              |      |             | 95       |                 |
| DNG            | 0362            | EX   | 0000         |         |         |          | 0.00   |           |         |                  |          |                    |              |      |             | 10       |                 |

### Maintain User to Credit Card# Assignment

Select activity **Expense Report Module Configuration → Dolphin: PTS-AP Maintain User to Credit Card# Assignment**



### Display IMG

Existing BC Sets | BC Sets for Activity | Activated BC Sets for Activity

Structure

- Dolphin- PTS-AP Configuration
  - Initial Activation
  - ArchiveLink Settings
  - Field Configuration
  - General Technical Settings
  - Status Codes
  - Routing
  - Posting Controls
  - Approvals
  - Detail Screen Configuration
  - Expense Report Module Configuration
    - Dolphin: PTS-AP Travel Expense Types for Receipt
    - Dolphin: PTS-AP Expense Type to GL Mapping
    - Dolphin: PTS-AP Maintain User to Credit Card# Assignment
    - Dolphin: PTS-AP Assignment of Credit Card Transact. to Travel Expense Typ.

Table /DOL/APWEB\_ER\_US links the userid to the credit card number. List each userid with their credit card numbers. The table fields are described as follows:

| Field name | Data Element     | Type | Length | Description                       |
|------------|------------------|------|--------|-----------------------------------|
| CLIENT*    | MANDT            | CLNT | 3      | Client                            |
| XUSER *    | /DOL/APR_USER_ID | CHAR | 30     | Dolphin: PTS-AP Approver's UserID |
| CARDNUM *  | C_NUM            | CHAR | 19     | Card#                             |

### Assignment of Credit Card Transactions to Travel Expense Types

Select activity **Expense Report Module Configuration → Dolphin: PTS-AP Assignment of Credit Card Transactions to Travel Expense Types**



### Display IMG

Existing BC Sets | BC Sets for Activity | Activated BC Sets for Activity

Structure

- ▼ Dolphin- PTS-AP Configuration
  - ▷ Initial Activation
  - ▷ ArchiveLink Settings
  - ▷ Field Configuration
  - ▷ General Technical Settings
  - ▷ Status Codes
  - ▷ Routing
  - ▷ Posting Controls
  - ▷ Approvals
  - ▷ Detail Screen Configuration
  - ▷ Expense Report Module Configuration
- ▷ Dolphin: PTS-AP Travel Expense Types for Receipt
- ▷ Dolphin: PTS-AP Expense Type to GL Mapping
- ▷ Dolphin: PTS-AP Maintain User to Credit Card# Assignment
- ▷ Dolphin: PTS-AP Assignment of Credit Card Transact. to Travel Expense Typ.



Table V\_T702B links the expense types per the credit card to the expense types per trip provision variant. Select the provision variant from the drop down list.

**Determine Work Area: Entry**

Work Area  
Trip Provision Variant  
10

Further select cond. Append

Trip Provision Variant (1) 22 Entries found

| TrProv... | Name                      |
|-----------|---------------------------|
| 01        | German accounting         |
| 02        | Swiss Accounting          |
| 03        | Austrian collective agree |
| 07        | Canada Travel Accounting  |
| 08        | British Accounting        |
| 09        | Danish Accounting         |
| 10        | US accounting (docs)      |
| 12        | Rheian Accounting         |

Maintain an expense type for each credit card transaction key for the effective time period.

Trip Prov. Variant 10 US accounting (docs)

Assignment of Credit Card Transact.to Travel Expense Types

| Card Company     | Trans. Key | PC                                  | Start Date | End Date   | ExpTy | FP | SP |
|------------------|------------|-------------------------------------|------------|------------|-------|----|----|
| American Express | CAR.RENTAL | <input type="checkbox"/>            | 01/01/1996 | 12/31/9999 | RCAR  | 10 |    |
| American Express | CAR.RENTAL | <input checked="" type="checkbox"/> | 01/01/1996 | 12/31/9999 | MISP  | 10 |    |
| American Express | COMMUNICAT | <input type="checkbox"/>            | 01/01/1996 | 12/31/9999 | TELE  | 10 |    |
| American Express | COMMUNICAT | <input checked="" type="checkbox"/> | 01/01/1996 | 12/31/9999 | TELE  | 10 |    |
| American Express | FLIGHT.... | <input type="checkbox"/>            | 01/01/1996 | 12/31/9999 | AIR   | 10 |    |
| American Express | FLIGHT.... | <input checked="" type="checkbox"/> | 01/01/1996 | 12/31/9999 | AIRP  | 10 |    |

Check if the expense is paid by the company. Maintain the further processing selection. Also, maintain the service provider if required.



### Change View "Assignment of Credit Card Transact.to Travel Expense Type"

|  |                                       |                     |
|--|---------------------------------------|---------------------|
| New Entries  |                                       |                     |
| Trip Prov. Variant   | 10 US accounting (docs)               |                     |
| Card Company   | AX American Express                   | Start<br>01/01/1996 |
| Transaction Key  | CAR.RENTAL                            | End<br>12/31/9999   |
| <input checked="" type="checkbox"/> Paid by Company              |                                       |                     |
| Assignment of Credit Card Transact.to Travel Expense Types       |                                       |                     |
| Travel Expense Type  | MISP Other Expenses (Paid by Comp.)   |                     |
| Service Provider   |                                       |                     |
| Further Processing   | 10 Store Transaction in Document Pool |                     |
| Change Option for Expense Types (For Characteristic TRVPA-CCC=3) |                                       |                     |
| Changeability  | Expense Type Cannot Be Changed        |                     |

Repeat for all expense types for all provision variants.

### Function Modules

| Function Group | Function Module             | Description                                    |
|----------------|-----------------------------|--|
| /DOL/APWEB_ER  | /DOL/APWEB_ER_EXPTYPE       | Dolphin PTS-AP: Expense type SVS               |
| /DOL/APWEB_ER  | /DOL/APWEB_ER_SUBMIT        | Dolphin PTS-AP: Expense Report Add-on Creation |
| /DOL/APWEB_ER  | /DOL/APWEB_ER_UNUSEDCCLINES | Dolphin PTS-AP: Unallocated credit card lines  |

### Credit Card Data

Credit card data is kept in the SAP table PTRV\_CCC and imported through report RPRCCCC00.



### Standard Text Templates

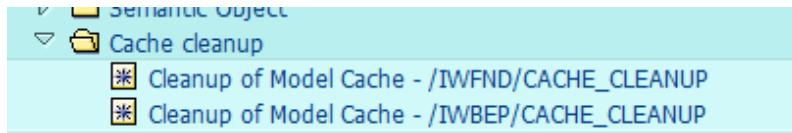
The following table details all standard text template names specific to the Expense Report add-on.

| Name                    | Language | Description                      |
|-------------------------|----------|----------------------------------|
| /DOL/APWEB_ER_BODY_EM   | EN       | Aging credit card email body     |
| /DOL/APWEB_ER_EMAIL_SUB | EN       | Aging credit card email subject  |
| /DOL/EMAIL_CC_BODY      | EN       | Credit card notice email body    |
| /DOL/EMAIL_CC_SUB       | EN       | Credit card notice email subject |

# After Support packs

Thursday, October 18, 2018 6:20 PM

/IWBEPCACHE\_CLEANUP



<https://archive.sap.com/discussions/thread/3277568>

CORRECT ANSWER



Former Member replied

December 08, 2012 at 18:14 PM

Hi Mingzuo,

Did you clear the cache? The metadata is cached at three places.

1) in BEP

2) in FND

3) and in your browser

To clear cache in BEP execute transaction /IWBEPCACHE\_CLEANUP

To clear cache in FND execute transaction /IWFND/CACHE\_CLEANUP

This should solve the problem. You dont have to repeat the service activation steps.

Regards

Chandan VA



View this answer in context ▾

Below slash needs to be removed

[https://sapuxued.tcc.etn.com:1443/sap/bc/ui5\\_ui5/ui2/ushell/shells/abap/FioriLaunchpad.html#/PurchaseRequisition-approve&/detail/WorkflowTaskCollection\(SAP\\_Origin='D47CLNT200',WorkitemID='000004436144'\)](https://sapuxued.tcc.etn.com:1443/sap/bc/ui5_ui5/ui2/ushell/shells/abap/FioriLaunchpad.html#/PurchaseRequisition-approve&/detail/WorkflowTaskCollection(SAP_Origin='D47CLNT200',WorkitemID='000004436144'))

[https://sapuxued.tcc.etn.com:1443/sap/bc/ui5\\_ui5/ui2/ushell/shells/abap/FioriLaunchpad.html#/PurchaseRequisition-approve&/detail/WorkflowTaskCollection\(SAP\\_Origin='D47CLNT200',WorkitemID='000004436144'\)](https://sapuxued.tcc.etn.com:1443/sap/bc/ui5_ui5/ui2/ushell/shells/abap/FioriLaunchpad.html#/PurchaseRequisition-approve&/detail/WorkflowTaskCollection(SAP_Origin='D47CLNT200',WorkitemID='000004436144'))

Tuesday, November 6, 2018

## Cache Maintenance in Fiori

March 2, 2016 | 15,094 Views |



[Arunkumar Yallampalli](#)

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SAP Fiori

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Hi All,

Cache issues are very common in Fiori app development. Please make sure to follow all below steps to verify all critical changes.

There are various modules involved in Fiori development and we need to make sure that cache in all these components have been cleared to avoid any issues.

1. 1. Clear the server http cache  
Go to the transaction SMICM. Goto -> HTTP plugin -> Server cache -> Invalidate Locally and Globally.

1. 2. Clear metadata cache  
Transaction: /IWFND/CACHE\_CLEANUP on Gateway (oData cache clearing)

Transaction: /IWBEPCACHE\_CLEANUP on Backend and Gateway (oData cache clearing)

1. 3. Synchronize chip cache  
Run the report /UI2/CHIP\_SYNCHRONIZE\_CACHE. Make sure there is no error in the table /UI2/CHIP\_CHDR

Run the report /UI2/DELETE\_CACHE\_AFTER\_IMP.

/UI2/DELETE\_CACHE

1. 4. Run cache buster  
Run the report /UI5/UPDATE\_CACHEBUSTER.

1. 5. Clear local browser cache – to avoid views and resources being displayed from local browser cache or else implement cache buster  
1.6 UI2 Cache

Run report /UI2/INVALIDATE\_GLOBAL\_CACHES. This cache clearing is mandatory especially to verify the translations integrated for ex tiles,groups,catalogs in Launchpad admin

1.7 Fiori client app is capable of handling local cache whenever new resources are available in the server so no need of manual cache management implementation

Please make sure that you follow all above cache maintenance techniques wherever and whenever required.

Thanks for reading my post.

Regards,

Arun.

Alert Moderator

Inserted from <<https://blogs.sap.com/2016/03/02/cache-maintenance-in-fiori/>>

Tuesday, November 6, 2018

# Cache Cleanup in SAP Netweaver Gateway

December 22, 2017 | 8,319 Views |



[Akshaya Parthasarathy](#)

[more by this author](#)

[NW ABAP Gateway \(OData\)](#)

[ODATA](#)[SAPUI5](#)[UI Business Server Pages \(BSP\)](#)[Cache\\_cleanup](#)

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Target Audience: SAP Fiori developers

Dear Readers,

I'm an SAPUI5/ SAP Fiori consultant. This blog is especially for SAPUI5 front end developers. This details about cleaning up of cache through various methods. Cache cleanup is required when we have made changes in the SAPUI5 code but it fails to reflect when the application is accessed through launchpad.

Problem

We all would have faced this issue of code changes not reflecting in Fiori launchpad or taking a very large amount of time to reflect in Fiori launchpad after we have made changes in gateway system.

This is because the old code is cached (like how we have cookies in browser , we have cache in gateway too) and hence our new code fails to reflect in the launchpad.

How do you fix this?

We upload SAPUI5 applications to SAP Gateway system through se38 transaction.

Program:/ui5/ui5\_repository\_load.

After upload of applications,we need to manually clear all possible caches so that a fresh copy of our code is taken when we access the app from launchpad.

There are a set of programs and T-codes that clear cache and these are to be executed in SAP netweaver gateway

### Programs to Delete Cache

Go to Transaction se38 and execute the following programs

1. `/ui2/delete_cache_after_imp`

Delete UI2 Cache after import of a Support Package

|                            |     |
|----------------------------|-----|
| Number of entries deleted: | 705 |
|----------------------------|-----|

2. `/ui2/invalidate_client_caches`

/UI2/INVALIDATE\_CLIENT\_CACHES

UI2 Client Caches Invalidation

For all users  
 For user

T-codes for cache cleanup

Execute the following T-codes

To clear front end cache

`/n/iwfnd/cache_cleanup`

Cleanup of Model Cache

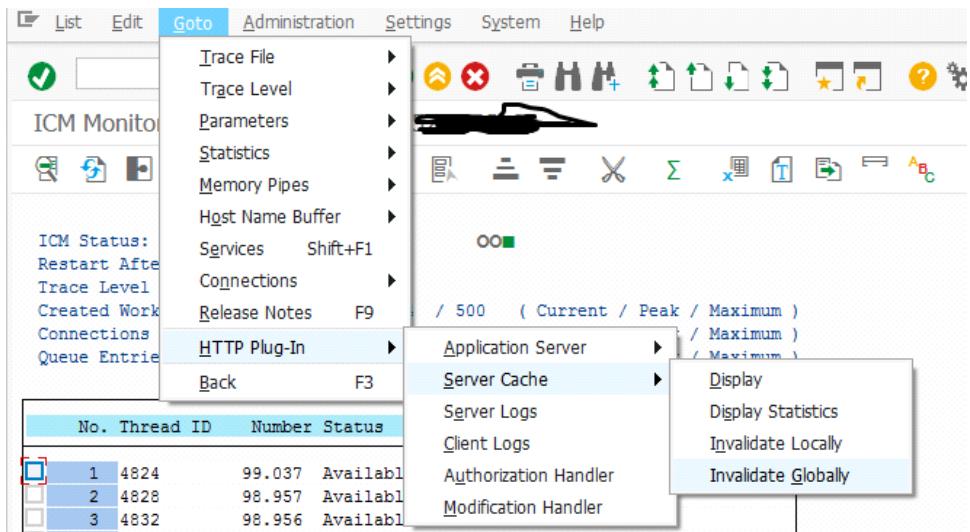
Model Identifier

Cleanup Cache for all Models

To clear Global Cache

`/nsmicm`

goto->HTTP Plugins->Server Caches->Invalidate globally



*Clear cookies in browser and hit the app from launchpad. The changes you have made in the app will reflect in the launchpad with immediate effect.*

Alert Moderator

Inserted from <<https://blogs.sap.com/2017/12/22/cache-cleanup-in-sap-netweaver-gateway/>>

# Useful SAP notes on Fiori Cache

Monday, November 12, 2018 2:57 PM

<https://launchpad.support.sap.com/#/notes/2626394>

<https://launchpad.support.sap.com/#/notes/2362875>

<https://launchpad.support.sap.com/#/notes/0002517585>

# Theme rebuild

Tuesday, November 13, 2018 8:34 AM

## **2505163 - How to Rebuild custom themes in UI Theme Designer**

From <<https://launchpad.support.sap.com/>>

<https://launchpad.support.sap.com/#/notes/2505163>

## **2319491 - How to clean up the cache after applying changes that affect SAP Fiori apps**

From <<https://launchpad.support.sap.com/>>

<https://launchpad.support.sap.com/#/notes/2319491>

## **2531969 - Upgrade has caused rendering issues or missing text on Fiori Launchpad**

From <<https://launchpad.support.sap.com/>>

<https://launchpad.support.sap.com/#/notes/2531969>