

Configure mInventory using RACE™

Connected Worker Solutions



Title and Copyright

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Preface

Understand audience, know related documents and products and conventions followed in this document.

Audience

This guide is for technical configurators who do RACE™ configurations for mInventory, a Mobile Inventory Management Solution of *Connected Workforce Platform*™.

Document Conventions

Table 0-1 Conventions followed in the document

Convention	Meaning
boldface	Indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Indicates book titles, emphasis, or placeholder variables for which you supply values.
<code>monospace</code>	Indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter

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1. Understand RACE™

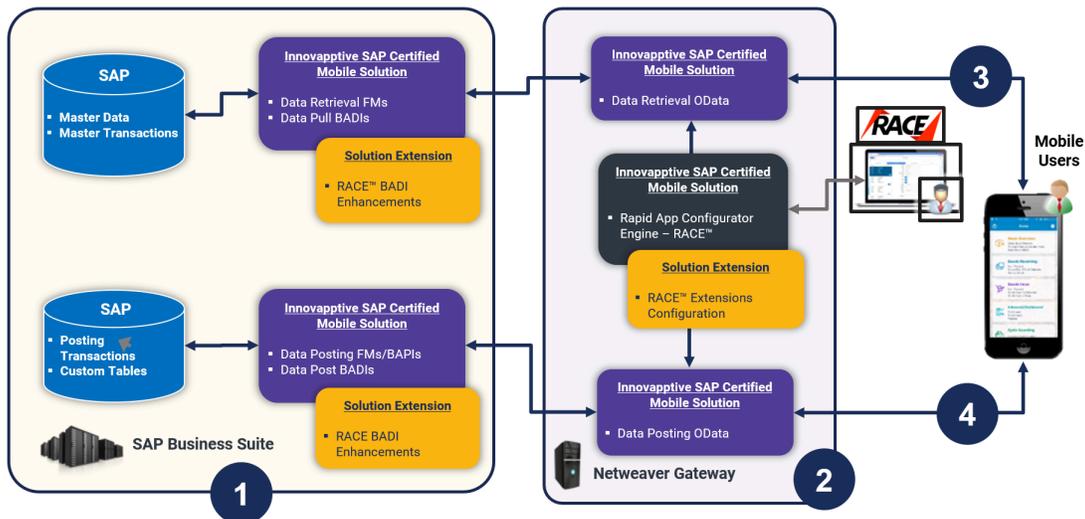
Innovapptive's Connected Workforce Platform™ uses built-in integrations to connect your SAP®, IBM Maximo, and other back-office systems with mobile applications.

This helps organizations,

- bridge communication and information gaps between executive teams, field technicians, plant operators, warehouse operators, maintenance engineers, and back-office staff.
- connect data points across cloud and on-premise networks to quickly and easily
- draw powerful insights
- identify cost-savings opportunities
- make calculated business decisions
- respond quickly to trends or problems

To align Innovapptive solutions with your operations, we built a Rapid App Configuration Engine (RACE™) directly into our mobile Connected Worker Platform. This sophisticated configuration toolkit gives developers and non-developers complete freedom to customize mobile environments without any coding experience.

Figure 1-1 RACE™ Architecture



Deployment ecosystem consists of the following:

1. SAP ECC Integration Component (SAP Certified Add-On in Innovapptive Namespace):

This SAP-certified add-on is developed on ABAP and can be deployed on SAP ECC through an Add-On Package. You can make enhancements to this, as required, through BADI by developing those enhancements in ABAP. This add-on helps you manage Data retrieval and do posting to BAPI's or Function Modules.

2. SAP NetWeaver Integration Component with OData Web Services: Developed on ABAP and OData and offered as an SAP Certified Add-On, this add-on is deployed through an Add-On Package on SAP NetWeaver. You can make enhancements through RACE Configurations. This add-on helps manage the OData integration components (i.e. OData Web Services) to interface with the mobile app. The RACE™ Add-On has both the front-end components and the back-end data tables for the RACE™ Lite Configuration tool.

3. Native App Client + Desktop Web App: Application front-end solutions are offered on all three major mobile OS as a native application that runs on tablets and smartphones.

- iOS – Developed using native iOS (Swift SDK)
- Android – Developed using Android SDK on JAVA
- Windows OS – Developed using Windows development kits.
- Browser based App for desktop – Developed using SAPUI5 technology.

Changes on the application user interface is managed through the RACE™ Lite Admin tool.

4. Interface between Mobile App and NetWeaver Gateway: OData Web Services

5. Interface between NetWeaver Gateway and SAP ECC: RFC Connection

1.1. Features of RACE™

You can do the following with RACE™ for your Innovapptive Connected Worker mobile application:

- **Enable and Disable features:** Enable or disable modules on the fly; no additional development or deployments efforts.
- **Define Defaults:** Define default device and application values that you use every day at work. For example, when you define the Default Plant the technician is employed at and the type of peripherals he /she uses, the Plant and Peripherals fields are auto populated when the technician uses the application. This saves productive time of the field worker and eliminates scope for errors.
- **Manage Filters:** Create, edit, or delete filters to define the transaction records that you want to view across the modules. For example, you can add a date filter to Purchase Orders and restrict the list that is displayed.
- **Add/Modify fields:** Add new fields and modify existing field parameters, such as Field Types, UI Label, UI Positions, and visibility. Define mandatory, optional, or display/hidden fields.
- **Add and customize search criteria:** Add/modify search fields to filter records based on your work requirements.
- **Create modules and screens:** Create new modules and screens to address your specific business requirements.
- **Optimize Performance:** Enable or disable a collection for Offline storage and configure the page size on the list screen using Skip Token.
- **Localization:** Configure the UI labels in the language of your choice to cater to language requirements.
- Apply security access capabilities to modules and features.
- Configure security for newly added fields.
- Map newly added fields with SAP fields.

1.2. New Features and Enhancements for RACE

The following are the new features and enhancements for RACE™ .

Check the releases below for the information:

- [New Features and Enhancements in Release 2206 \(on page 11\)](#)
- [New Features and Enhancements in Release 2203 \(on page 14\)](#)
- [New Features and Enhancements in Release 2112 \(on page 15\)](#)
- [New Features and Enhancements in Release 2109 \(on page 16\)](#)
- [New Features and Enhancements in Release 2106 \(on page 17\)](#)

New Features and Enhancements in Release 2206

Table 1-1 New Features and Enhancements in Release 2206

Reference No.	Description
MIM-26532	<p>Select Reason for Goods Movement when in Offline Mode (iOS)</p> <p>Select a reason for goods issue when you are in offline mode and sync the information when you enter location with a good network.</p> <p>This feature can be configured using Extensions.</p> <p>For more information, see Configure Reason for Movement When in Offline Mode (on page 94)</p>
MIM-26710	<p>View Last Goods Receiving Date and Unrestricted Stock in Blind Count (iOS)</p> <p>View the last Goods Receiving date and Unrestricted Stock information while doing the Blind Count. This feature helps you know when you received the stock and the available stock.</p> <p>This feature can be configured using Extensions.</p> <p>For more information, see Configure GR Date and Unrestricted Quantity Extensions in Blind Count (on page 96)</p>
MIM-27013	<p>Search with Material Description (iOS, Android)</p>

Table 1-1 New Features and Enhancements in Release 2206 (continued)

Reference No.	Description
	<p>Search material using material description across the application. For example, if you search with the word Bearings in the Material field, all the material descriptions which contain the name Bearings are displayed in the list.</p>
MIM-26787	<p>View Work Order, Goods Recipient name, and Bin location details (iOS)</p> <p>When the Purchase Order is for a work order, you can view the Work Order, Goods Recipient, and Storage Bin location details and print less number of labels and avoid wastage.</p> <p>This feature can be configured using Extensions.</p> <p>For more information, see Configure Work Order, Goods Recipient, Bin Location, and Text Extensions for Purchase Order (on page 99)</p>
MIM-22780	<p>Add Text while adding Goods Receiving information (iOS)</p> <p>Use the text field to add details while adding Good Receiving information. This feature helps you add detailed information related to the goods. For example, if the goods are damaged, you can use this field to enter detailed information related to damaged goods.</p> <p>This feature can be configured using Extensions.</p>

Table 1-1 New Features and Enhancements in Release 2206 (continued)

Reference No.	Description
	<p>For more information, see Configure Work Order, Goods Recipient, Bin Location, and Text Extensions for Purchase Order (on page 99)</p>
<p>MIM-27042</p>	<p>Other Product Improvements (iOS, Android)</p> <ul style="list-style-type: none"> • Based on the value selected for the Account Assignment field, add Cost Center, Order, and WBS Element while creating and approving Purchase Requisition. • Add Vendor Number and Purchasing Organization, and Short Description while creating Purchase Requisition. • Change the value in the UOM field while creating Purchase Requisition. • Removed Item Category field in the Purchase Requisition create screen. • Add shipping instructions while creating Purchase Requisition. • Add Plant and Short Description while approving the Purchase Requisition or Purchase Order. • Add Header text and Line item text while approving the Purchase Requisition or Purchase Order. <p>This feature can be configured using Filters.</p> <p>For more information, see Configure Document Type Filters in Purchase Requisition Creation (on page 75)</p>

New Features and Enhancements in Release 2203

Table 1-2 New Features and Enhancements in Release mInventory 2203

Reference No.	Description
MIM-26409	<p>Auto-populate Filed Values</p> <p>View the Last Goods Received Date and Unrestricted Quantity of the material, which populates automatically while doing opportunity count in online mode.</p> <p>For information, see Configure GR Date and Unrestricted Quantity Extensions (on page 90)</p>
MIM-26425	<p>Scan Records from the Home Screen</p> <p>Scan records using the Central Scanning button and instantly navigate to the record based on the configuration of string in Default Settings</p> <p>For information, see Configure Central Scan (on page 70)</p>
MIM-26012	<p>View Sub modules as Main modules</p> <p>This configuration helps you to configure to view the sub modules as main modules and directly process the transactions from the Home screen. For example, you can access the Goods Issue Other - 201 sub module in the Home screen instead of navigating into the Goods Issues module.</p> <p>For information, see Configure Sub Module as Main Module (on page 48)</p>
MIM-26407	<p>Reason for Movement is Mandatory</p>

Table 1-2 New Features and Enhancements in Release mInventory 2203 (continued)

Reference No.	Description
	<p>Get an alert while posting a purchasing order document without mentioning the reason for movement in GR return delivery in offline mode.</p> <p>For information, see Configure Reason for Movement Mandatory (on page 93)</p>
MIM-26485	<p>View Reservation Numbers</p> <p>View the reservation numbers while searching work orders.</p> <p>For information, see Configure default search result (on page 56)</p>

New Features and Enhancements in Release 2112**Table 1-3 New Features and Enhancements in Release mInventory 2112**

Reference No.	Description
MIM-25657	<p>Highlight Fields Names</p> <p>Highlight labels of key fields in different colors. For example, you can highlight field names such as PO Number, Vendor, Storage Location and so on using different colors. This gives you better visibility of key fields.</p> <p>This feature can be configured using Defaults.</p> <p>For information, see Configure Key Fields Label Colors (on page 64)</p>
MIM-15587	<p>View total stock available in the bin</p>

Table 1-3 New Features and Enhancements in Release mInventory 2112 (continued)

Reference No.	Description
	<p>View total available stock in a bin using the Material Master module. This feature gives you instant visibility of the stock in the bin. When you receive a stock transfer request, you can instantly check the stock and transfer from the bin that has stock.</p> <p>This feature is added by default to your MIM application using the Extensions screen of RACE.</p>
MIM-23858	<p>Numeric Keypad for Numeric Fields</p> <p>The numeric keypad is set as default for the numeric fields in all the modules. This helps you to input numbers efficiently and easily. It works for both scanning and manual data entry in the fields.</p> <p>This feature is added to your MIM Application by default in the Searches screen.</p>

New Features and Enhancements in Release 2109

Table 1-4 New Features and Enhancements in Release mInventory 2109

Reference No.	Description
MIM-24253	<p>Kitting and Staging Materials</p> <p>Transfer the Work Order material from the Storage Location to the Staging Area. The Assignee to whom the Work Order is assigned picks the material from the storage area and assigns it to the Picker at the staging area along with the Work Order document. The picker stacks material in the staging area as</p>

Table 1-4 New Features and Enhancements in Release mInventory 2109 (continued)

Reference No.	Description
	<p>per the Work Order details. The material can be transferred from the storage Location to the staging area batch wise or partially or fully.</p> <p>This feature can be turned OFF and ON using Scoping.</p> <p>For information, see Enable/disable modules and features (on page 40)</p>

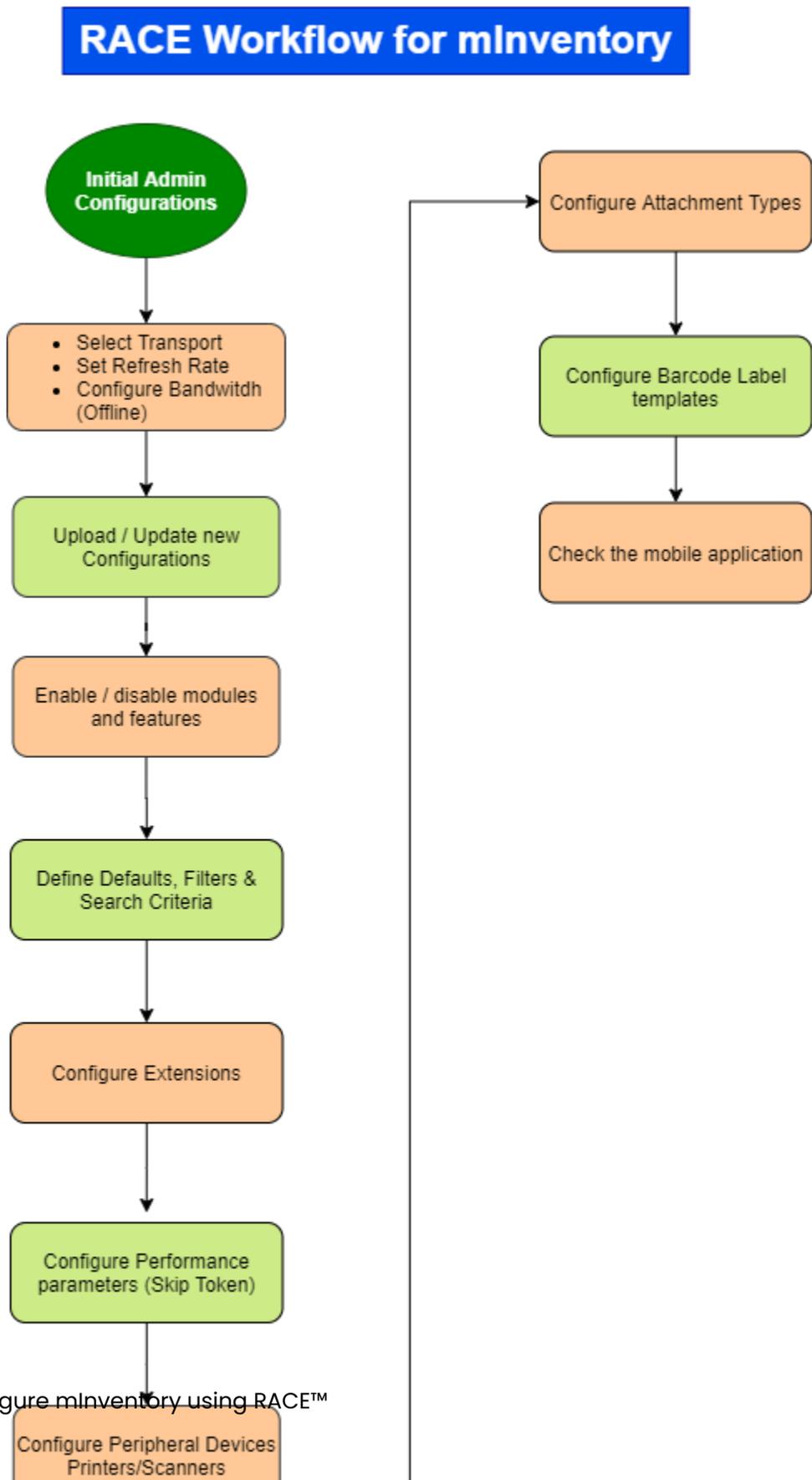
New Features and Enhancements in Release 2106

Table 1-5 New Features and Enhancements in Release mInventory 2106

Reference No.	Description
MIM-24447	<p>Scan barcode label to generate new label</p> <p>Scan and capture data barcode labels to generate new labels for any configurable fields. When a barcode label is scanned, the data in the fields is captured and populated on the app. Use the data to generate another barcode label.</p> <p>For information, see Create Barcode Labels using Existing Barcode Labels (on page 155)</p>

1.3. Workflow to configure mInventory using RACE™

Figure 1-2 RACE Workflow



1.4. RACE™ Admin Configurations – Setting it up

You are a RACE™ administrator and you configure screen components, field types, form templates and attributes, dropdown table fields which can be used by non-admin RACE™ configurators.

For example, when you configure an Extension or Search field as check label, check box or an auto input dropdown field type in the admin section, a RACE™ user uses from these options for configuring applications.

To manage these configurations, login to RACE™ as an administrator, click the Admin  icon on the top right of the screen and do the configurations listed in this section

1.4.1. Connect to backend SAP systems to retrieve data

Connect to backend SAP systems and retrieve tables, fields, and BAPIs list.

To connect to backend SAP systems to retrieve data:

1. In the Admin section, click **Systems** on the left panel.

2. Click the **Add**  icon next to the search field.

You can also click the **Copy**  button on the details pane of an existing UI field type to populate the properties in the **Create New System** section.

3. In the **Create New System** section, enter this information:

Table 1-6 System attributes

Field	Description
System Name	Name of the system to retrieve the data from like ECC, CRM, and so on.

Field	Description
System ID	Unique identity (alpha numeric) to specify the ID for system.
Destination	Name of the system where the data is posted.

4. Click **Create**.



Note:

For recommended settings, see the RACE™ Preset Configuration spreadsheet.

1.4.2. Get appropriate access permissions

When users make RACE™ configuration changes, the changes are captured in SAP Netweaver Gateway as custom transports.

To make these configuration changes, RACE users must have one of the following valid profiles with required authorizations.

- **Add and update configurations:** Access to Authorization Object /INVCEC/RA and Activity 01,02,03
- **Update configurations only:** Access to Authorization Object /INVCEC/RA and Activity 02.
- **View configurations only:** Access to Authorization Object /INVCEC/RA and Activity 03

Provide required authorizations to RACE™ users.

1.4.3. Configure UI Field Types

Use the **UI Field Types** menu to configure field types for RACE™ User screen.

When you configure an Extension or Search field as check label, check box or an auto input dropdown, a RACE™ user uses any of these or all types as the field type when configuring the fields for Innovapptive Connected Worker mobile applications.

To configure UI field type:

1. In the Admin section, click **UI Field Types** on the left panel.

2. Click the **Add**  icon next to the search field.

You can also click the **Copy**  button on the details pane of an existing UI field type to populate the properties in the **Create UI Field** section.

3. In the **Create new UI Fields** section, enter this information:

Table 1-7 UI Field Types attributes

Field	Description
UI Field	Type of extension field to be displayed in the application. <div style="border: 1px solid #00a0c0; border-radius: 10px; padding: 10px; background-color: #e6f2ff;">  Note: Select UI Field as TAF to enable user to enter the data in a tabular format in a Form. </div>
UI Field Description	Description of the UI field type.
UI Field Category	Category of the UI field like drop down and non-drop down depending on which some fields are shown on the application.
Product(s)	Select the applications for which the field type is configured.

4. Click **Create**.

 **Note:**
 For recommended settings, see the RACE™ Preset Configuration spreadsheet.

1.4.4. Configure components for transaction screens

Use the **Components** option to configure screen area, screen type, element, and element type components for RACE™ transaction screens.

When you configure a screen, you select a component like Header and define extensions or fields depending on the type of transaction / workflow.

To configure screen components:

1. In the Admin section, click **Components** on the left panel.

2. Click the **Add**  icon next to the search field.

You can also click the **Copy**  button on the details pane of an existing UI field type to populate the properties in the **Create new Component** section.

3. In the **Create new Component** section, enter this information:

Table 1-8 Screen Component attributes

Field	Description
Component Type	Type of screen component. Possible values: <ul style="list-style-type: none"> ◦ Screen Area ◦ Screen Type ◦ Element ◦ Element Type
Component Name	Name of the screen element like Header, Tab, Label and Button.
Component Description	Description of the Screen component.
Parent Component	Name of the parent component like screen or element.

4. Click **Create**.



Note:

For recommended settings, see the RACE™ Preset Configuration spreadsheet.

1.4.5. Configure dropdown table and dependency fields

Use the **DD Tables** menu to configure dropdown tables to retrieve data from SAP for transaction screens on the mobile.

You can also configure the Dependency Field and Dependency Key Field for the dropdown field. For example, when you select the dropdown table to configure an Extension or Search dropdown field, the dependency fields are auto populated.

To configure dropdown table for fields:

1. In the Admin section, click **DD Tables** on the left panel.

2. Click the **Add**  icon next to the search field.

You can also click the **Copy**  button on the details pane of an existing UI field type to populate the properties in the **Create new predefined DD table fields** section.

3. In the **Create new predefined DD table fields** section, enter this information:

Table 1-9 Dropdown table field attributes

Field	Description
Predefined DD Table	Enter the dropdown table field.
DD Table Name	Enter the name of SAP table to retrieve data from.
DD Field Name	Enter the name of SAP field to retrieve.
DD Dependency Field	Enter the name of the field to auto-populate depending on the value selected in dropdown field.
Text Required	Define how the text for dropdown values is displayed. Possible values: <ul style="list-style-type: none"> ◦ 0 – Not Required (not relevant) ◦ 1 – Only Description (only the description of the value is displayed) ◦ 2 – Key and Description (both the key and description of the value are displayed)
Text Table	Enter the table name to fetch the text from.

Field	Description
Text Field	Enter the table field name to fetch the text.
Text Key Field	Enter the name of the field to fetch the value.

4. Click **Create**.



Note:

For recommended settings, see the RACE™ Preset Configuration spreadsheet.

1.5. Before you configure mInventory using RACE™

Before you use RACE™ to configure mInventory, do the following:

- [Familiarize yourself with the mInventory RACE™ UI \(on page 24\)](#)
- [Select Transport for Migrating Changes \(on page 25\)](#)
- [Configurations for your Connected Worker Mobile Application \(on page 26\)](#)

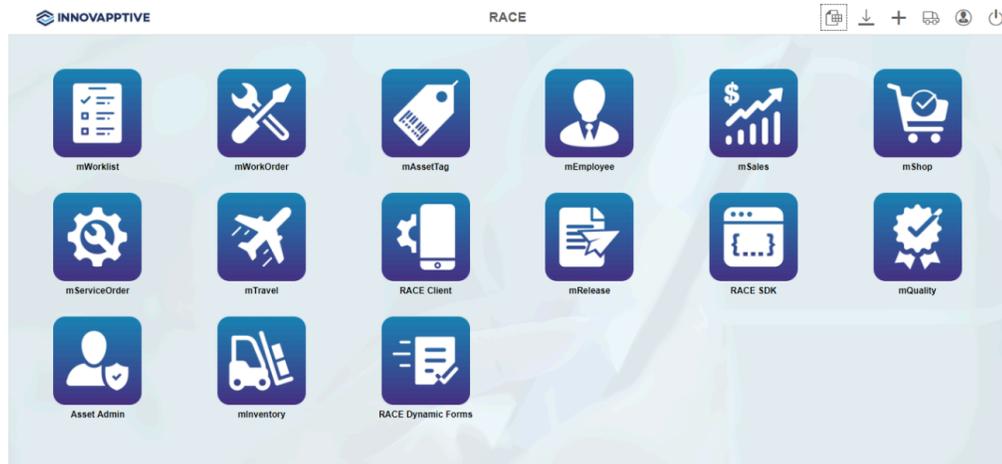
1.5.1. Familiarize yourself with the mInventory RACE™ UI

Understanding the mInventory RACE™ dashboard helps you do your tasks faster.

To access mInventory RACE™ UI to familiarize yourself with the dashboard.

1. Enter the RACE™ URL in a browser and login using your User ID and Password.
2. From the Dashboard, select the **mInventory** application.

Figure 1-3 RACE™ Home Page



RACE™ for mInventory configuration panel appears with the following options:

- Modules and Screens
- Scoping
- Dynamic Searches
- Defaults
- Extensions
- Filters
- Performance
- Localization
- Postings
- Screens
- Barcode Layout
- Attachment Config

1.5.2. Select Transport for Migrating Changes

Before you upload the RACE™ configurations provided in spreadsheets, or do any configuration changes, select the valid SAP transport request. These SAP transports help migrate the configurations that you make in RACE™ from Development to Quality and to Production systems.



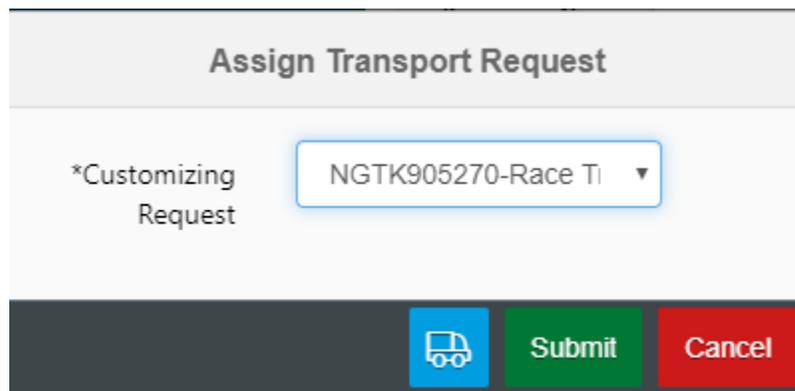
Note:

You can use 'LOCAL' Object as an option. However, changes made under 'LOCAL' are not transportable. Use this option only when making changes to 'Productive' environment settings.

To select the transport to be used for moving configurations:

1. In the top panel bar, click the **Transport Requests**  icon.
2. Select a transport in the **Assign Transport Request** window.
3. Click **Submit**.

Figure 1-4 RACE™ Transport Request



1.5.3. Configurations for your Connected Worker Mobile Application

Configurations such as Offline, RACE Menu, Application details and configurations are applicable to your entire mobile application.

You can do the following configurations for your connected worker mobile application:

- [Application Details \(on page 27\)](#)
- [Offline Configuration \(on page 27\)](#)
- [Application Configurations \(on page 27\)](#)
- [RACE Menu Configurations \(on page 27\)](#)

To do the app level configurations, On the top panel bar, click the **Settings**  icon on the top panel.

Application Details

You can view the basic application details like App Name, App ID, App Title and Project Name.

- You cannot change **App Name** or **App ID**.
- You can edit **App Title** and **Project Name**. Do only if required.
- User Project Name when creating or adding a new module. Do not change this value for the standard product deployment.

Offline Configurations

- **Refresh Offline:** Choose this if you want the application to synchronize data into the offline database. Helps in low and no connectivity zones of your workplace.
- **Refresh Rate:** Duration in seconds to auto refresh the offline database, from the time the last refresh was triggered.
- **Bandwidth:** Duration in seconds before the application switches to offline mode, if the bandwidth of the network connection falls below the level maintained in application settings.

Application Configurations

This option enables the User Profile feature in the mobile application. You can configure default logout method for every application user:

- **Logout:** When the user clicks on Logout, the user will be logged out. But the user is still registered with the device. A new user will not be able to login to the device. If the device is shared between multiple employees, the registered user must navigate to the Settings screen in the application and Unregister.
- **Logout and Unregister:** With this option, when the user logs out, the user is also unregistered from the device at the same time. All Offline database and cached data of the user is also cleared. New users can use the same device to do the transactions in the next shift.

RACE™ Menu Configuration

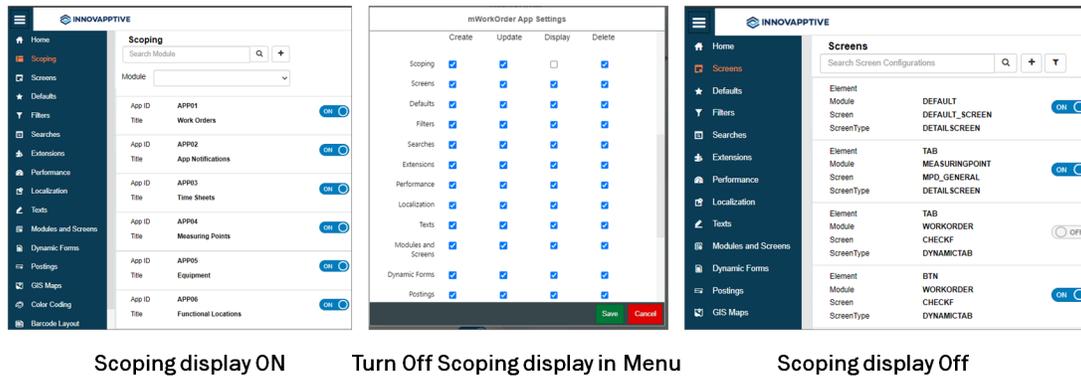
When the RACE™ Admin creates a RACE™ user, the user gets full access to do the configurations by default. If the user needs to be provided restricted access, the RACE™ admin can provide the following access levels.

| 1 – Understand RACE™

- Create allows the user to add new configuration entry for the module.
- Update allows the user to modify the existing configuration entry for that module.
- Display allows the user to view configuration entries for that module.
- Delete allows the user to remove any existing configuration entry in that module.

In the following screenshot, when the **Display** of the **Scoping** module is turned off, you can see that the user can no longer view the **Scoping** module.

Figure 1-5 RACE™ Menu Configurations



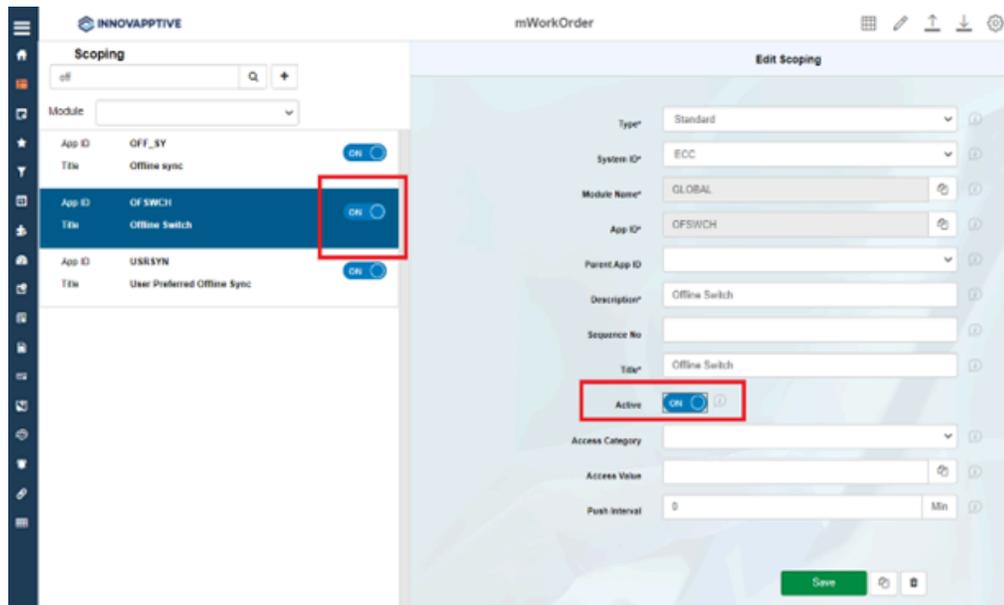
1.6. Configure Offline Toggle Switch and Network Timeout

Enable the offline toggle switch using the RACE configurator.

To enable the offline switch:

1. Login to the **RACE** application.
2. Click **Scoping** on the left panel.
3. Enter the **OFSWCH** App ID in the search field.
4. Select the **OFSWCH** App ID from the search results on the left side.
5. In the **Edit Scoping** section, turn **ON** the **Active** toggle switch.

Figure 1-6 Enable Offline Toggle Switch



6. Click **Save**.

The change is made in the Development environment. Now you need to move it to the production environment.

7. In the **Assign Transport Request** window, select the transport from **Customizing Request** options.

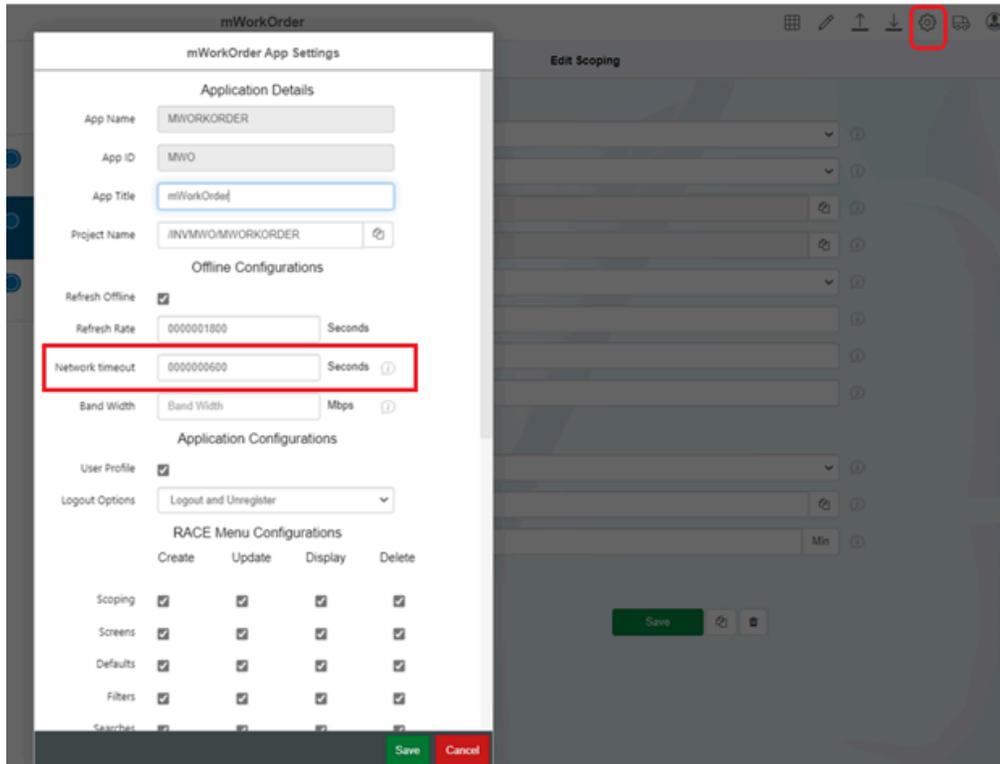
8. Click **Submit**.

Whenever a maintenance technician is in a location where there is low internet connectivity, the ERP servers do not respond to technicians' mobile devices in the defined time. The application then prompts a warning message to switch to offline mode. You can set the defined time in RACE using the Network Timeout option.

To configure the Network Timeout rate:

1. Click the **Settings**  icon on the top panel.
2. Under Offline Configurations sections, in the **Network Timeout** field, enter the value as **000000120**.

Figure 1-7 Set Network Timeout Value



3. Click **Save**.
4. In the **Assign Transport Request** window, click **Submit**.

1.7. Open Links in Relevant App instead of Browser

When a purchase requisition is raised, the approver receives the notification both in an email as a link and as an in-app notification. The approver can either approve or reject the Purchase Requisition by clicking on the link in the email.

By default, the email link opens in a browser. Instead, you can configure to open in the app (MIM) and provide better user experience.

Associated domain file helps you open links in the app. When you click the link in the email, the system downloads the associated domain file, verifies the domains in your entitlement and opens the app if the verification is successful and allows you to approve or reject the PR.



Note:

If your site uses multiple subdomains for example, `www.innovapptive.com`, or `support.innovapptive.com`, each requires its own entry in the Associated Domains Entitlement, and each must serve its own `apple-app-site-association` file.

Details needed in the Apple Associated Domain File

The following JSON code represents the contents of a simple association file.

```
{
  "applinks": {
    "apps": [],
    "details": [
      {
        "appID":
          "3A7BH9Q33A.com.innovapptive.minventorydist",
        "paths": [ "/APPPR2/*" ]
      }
    ]
  }
}
```

The `appIDs` and `apps keys` from the above file specifies the application identifiers for the apps that are available for use on this website along with their service types.

Use the following format for the values in these keys:

```
<Application Identifier Prefix>.<Bundle Identifier>
```

The details dictionary only applies to the `applinks` service type; other service types don't use it. The `components` key is an array of dictionaries that provides pattern matching for components of the URL.



Note:

Don't append `.json` to the `apple-app-site-association` filename.

Figure 1-8 JSON Code Sample

```

{
  "applinks": {
    "apps": [],
    "details": [
      {
        "appID": "3A7BH9Q33A.com.innovapptive.minventorydist",
        "paths": [ "/APPPR2/*" ]
      }
    ]
  }
}

```

Deploy Apple Associated Domain file in Website

Prerequisite: Server should be up and running.

To securely associate your iOS app with a server, Apple requires that you make available apple-app-site-association file.

Upload it to the root of your HTTPS web server or to the **.well-known subdirectory**.

The apple-app-site-association file needs to be accessible via HTTPS, without any redirects.

For example,

```

https://<domain>/apple-app-site-association
or
https://<domain>/.well-known/apple-app-site-association

```

For example,

```

https://docs.innovapptive.com/apple-app-site-association
https://docs.innovapptive.com/.well-known/apple-app-site-association

```

Support Multiple Domains

Each domain that is supported in the app needs to make available its own apple-app-site-association file. If the content served by each domain is different, then the contents of the file should also be changed to support the respective paths.

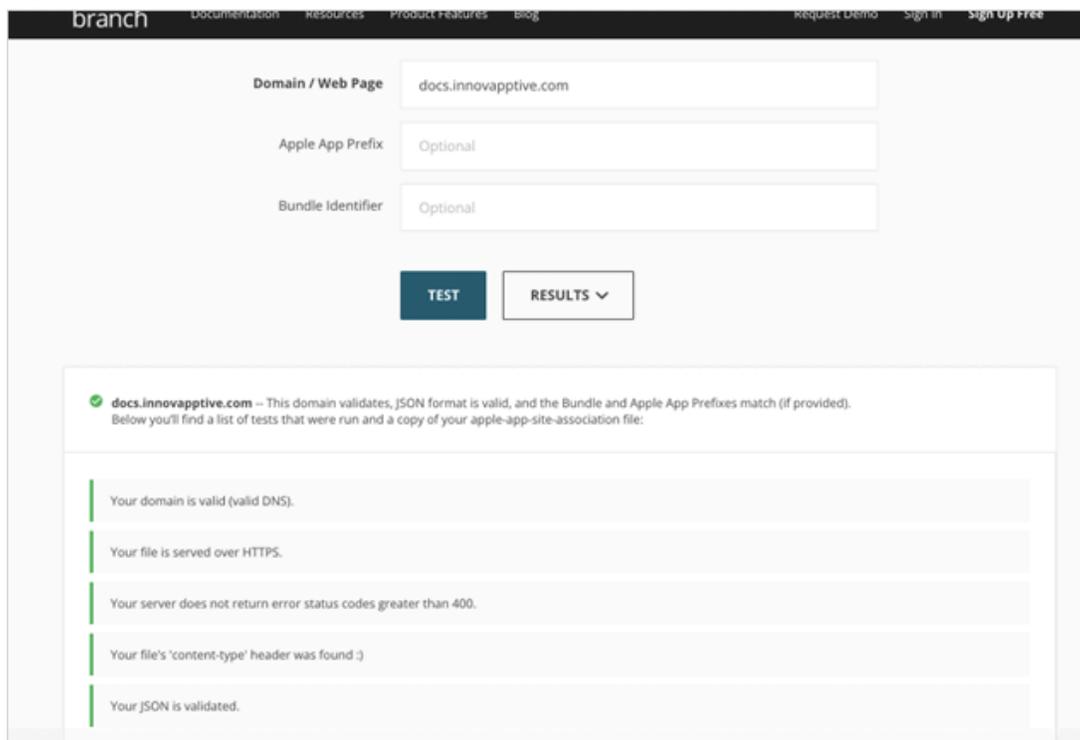
You can also use the same file for all domains, but the file needs to be made accessible at every supported domain.

Validate Application Association File

Validate the application association file is uploaded properly or not by using the link: <http://branch.io/resources/aasa-validator/>.

If the file is valid, then all the checks are displayed in green as shown below.

Figure 1-9 File Validation Successful



Email Link Format

Following is the link format:

```
https://{yourdomain}/APPPR2/{PR_NUMBER}
```

For example,

```
https://docs.innovapptive.com/APPPR2/10022072
```

2. Upload mInventory preset Configuration Spreadsheets Using RACE™

RACE™ configurations are provided in spreadsheets. Upload the spreadsheets in RACE™ to enable the latest mInventory features.

When you upload the RACE™ pre-set configuration spreadsheets, you enable all the recommended features / configurations automatically. Contact your Innovapptive representative for these spreadsheets.

mInventory configuration RACE Spreadsheets

- **Admin_Configurations:** (Mandatory file). This file contains configurations for UI Field Type, Components, Form Attributes, System ID, DD Tables, Barcode Types, and Attachment Destination.



Note:

- If UI field type is related to drop down, check and maintain dynamic drop-down configuration fields data properly (DD TABLE NAME, DD FIELD NAME, TEXT REQ, TEXT TABLE NAME, TEXT FIELD NAME, TEXT KEY FIELD NAME, DEPENDENCY FIELD NAME, DEPENDENCY KEY FIELD NAME).
- Try to avoid Transaction tables in DD Table Name (MARA, VBAK, MARC, MSEG).
- Dynamic drop-down table should have very less data (< 1000 entries). If we have more data in dynamic drop-down table, there will be chances of offline store failure.

- **mInventory_Configurations:** (Mandatory file) This spreadsheet contains configurations for Scoping, Screen Configurations, Extensions, Data Configurations, UI Labels, GIS Maps, Modules and Screens, and Search.

- **Data Configurations:** The configurations in the sheet ensure that the performance of application is optimized.



Note:

- Sync the collections to offline as per the customer scope only.
- For drop-down collection, if no. of entries < 1000, then enable delta token and offline sync. Access from offline should be active.
- For drop-down collection, if no. of entries > 1000, then enable skip token and offline sync. Skip token size should be 500 to 1000. Access from offline should be active.
- For expand collections, enable skip token and offline sync. Access from offline should be active.
- Delete any duplicate collections.
- If expand collection (GRPOHeaderCollection? \$expand=GRPOItemCollection plain collection : GRPOHeaderCollection...etc.) is enabled for offline sync, then there is no need to enable the offline sync for plain collection (GROPHEADERCOLLECTION). We maintain expand collection and plain collection separately only to increase the skip token value in online mode.

- **App Scoping:** The sheet contains all the mInventory Modules.



Note:

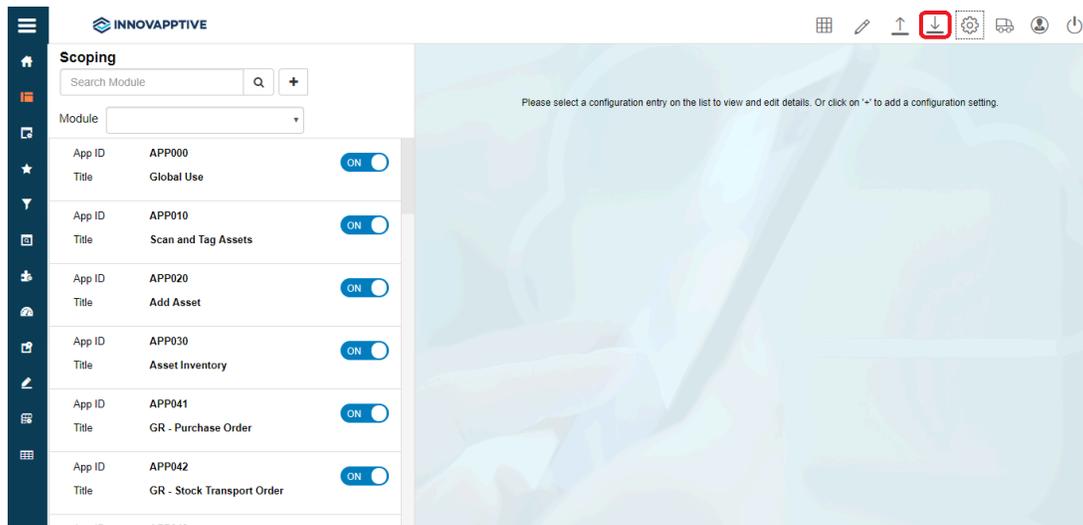
- Each entry should have a system name.
- Do not configure any static feature directly in customer environment. Check with RACE development team.
- Do not maintain any junk data.

2.1. Download current version RACE™ configuration spreadsheets

Before you upload the latest version's RACE™ configuration spreadsheets, download your existing RACE™ configurations and place them in a backup folder.

To download RACE™ configurations, click the **Download**  icon and save.

Figure 2-1 Download RACE™ Configurations



2.2. Upload/upgrade RACE™ configurations of the current release

When you use the mWorkOrder RACE™ preset configuration spreadsheets, you enable all the modules/features, extensions, or screens and other configurations on the mWorkOrder application automatically. Depending on whether you are installing for the first time or upgrading from the previous version, choose upload and update options respectively.



Note:

You can check release wise RACE configurations before updating the mWorkOrder RACE pre-set configurations. Click [here](#) to view

Upload : When installing and configuring mWorkOrder for the first time

Use the upload option when you are installing and configuring the mWorkOrder application for the first time.



Note:

This option overrides any customizations made to the RACE spreadsheets by your organization.

Following table illustrates how RACE™ Upload option works:

Table 2-1 RACE™ Upload Configurations

Preset Configurations in Spreadsheets	Configurations Changes made by your organization	After RACE™ Upload
Extension 1 – DD	Extension 1 – DD	Extension 1 – DD
Extension 2 – TF	Extension 2 – CB	Extension 2 – TF
Extension 3 – ID	Extension 3 – ID	Extension 3 – ID
Extension 4 – SCAN	Extension 4 – OCR	Extension 4 – SCAN

 **Update version** : When upgrading and configuring mWorkOrder from previous version

Use the update option when you are upgrading and configuring the mWorkOrder application from the previous version. This updates new configurations without overriding the changes made to the previous RACE™ preset configurations by your organization

Following table illustrates you how RACE™ Update option works:

Table 2-2 RACE™ Update Configurations

Preset Configurations in Spreadsheets	Configurations Changes made by your organization	After RACE™ Update
Extension 1 – DD	Extension 1 – DD	Extension 1 – DD
Extension 2 – TF	Extension 2 – CB	Extension 2 – CB
Extension 3 – ID	Extension 3 – ID	Extension 3 – ID
Extension 4 – SCAN	Extension 4 – OCR	Extension 4 – OCR

2.3. Upload/upgrade configurations for multiple modules at once

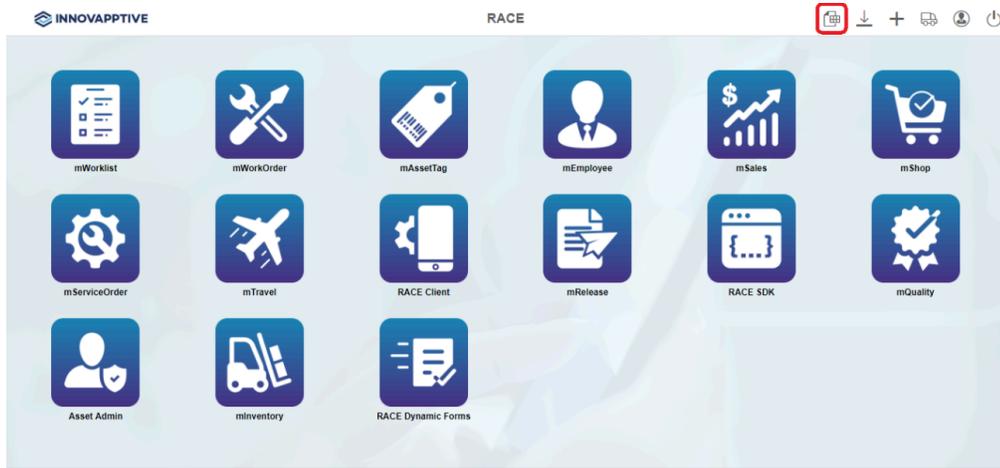
You can upload or upgrade multiple modules using RACE™ preset configuration spreadsheets at one go.

To upload or upgrade RACE™ configurations for all modules at one go:

| 2 - Upload mInventory preset Configuration Spreadsheets Using RACE™

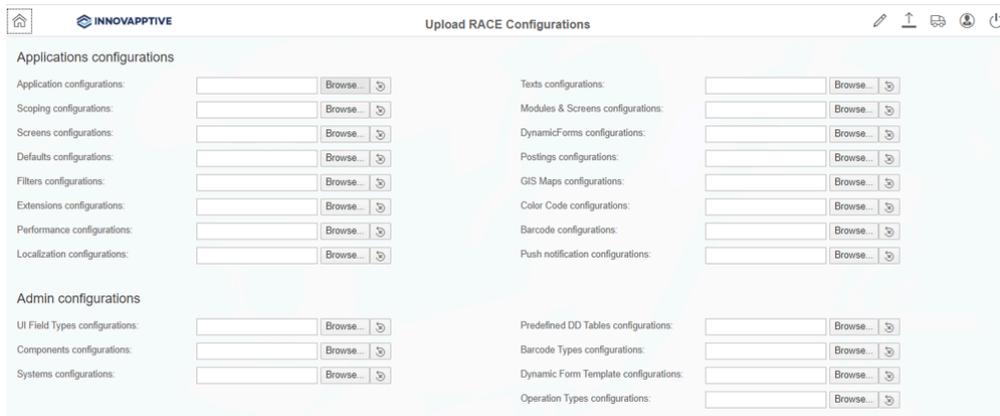
1. Click on the  icon on RACE™ home page.

Figure 2-2 Upload RACE™ Configuration Settings



2. On the **Upload RACE™ Configurations** screen, click **Browse** next to the module/feature to select the spreadsheet for that module/feature.

Figure 2-3 Upload RACE™ Configurations



3. Click the **Upload**  or **Update**  icon.

2.4. Upload/upgrade configurations for one module at a time

You can upload or upgrade multiple modules using RACE™ preset configuration spreadsheets at one go.

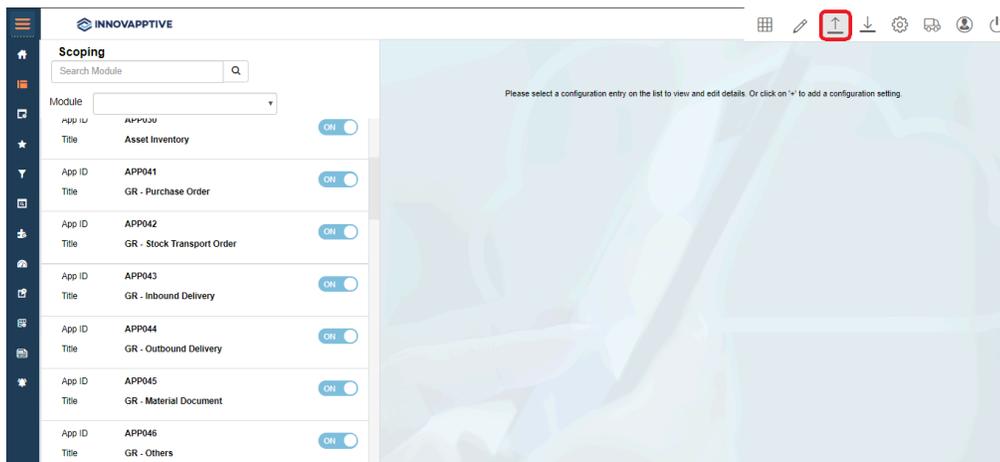
| 2 - Upload mInventory preset Configuration Spreadsheets Using RACE™

To upload/ upgrade one module in RACE™ at a time:

1. Click the module that you want to upgrade in the left pane. For example, click the **Scoping** module.

2. Click the **Upload**  icon or **Update**  icon to browse and select the excel spreadsheet.

Figure 2-4 Upload RACE™ Configuration Settings



3. Enable/disable modules and features

When you upload RACE preset configuration spreadsheets, all the standard features and configurations that are required for the mobile application are enabled. You can disable the features that are not required for your organization or not applicable for your industry.

This chapter helps you with the following tasks

- [Module / Feature Properties \(on page 40\)](#)
- [Enable/disable modules and features for all users \(application level\) \(on page 42\)](#)
- [Enable / Disable modules and features for specific users \(on page 43\)](#)
- [Enable Features that are not enabled with preset configuration spreadsheets \(on page 44\)](#)

3.1. Module / Feature Properties

Before you enable or disable features, read the explanations of the properties of the fields related to modules and features in the following table.

Table 3-1 Scoping attributes

Field	Description
Type	Type of the feature/module. Possible values: <ul style="list-style-type: none">• Standard: Standard feature/module in the mobile application. You can only enable or disable.• Custom Category: New feature can be added in the application. User can add the entries under custom category with or without using the templates.• Template Category: New feature can be added in the application with reference to templates.
System ID	Indicates the SAP system like ECC, CRM, SRM to retrieve tables, fields and BAPIs list in other screens like Defaults, Extensions.

Table 3-1 Scoping attributes (continued)

Field	Description
Module Name	Enter/select the name to define/identify the module.
App ID	Unique identity (alpha numeric) to specify the ID for the application.
Parent App ID	Parent App ID of the module for which the Module is the sub-module.
BOR Object ID	Business object ID based on the transaction codes used for the configuration process.
Description	Description of the module/feature.
Sequence No	Defines the sequence or position of the screen for the Module.
Title	Short description of the feature.
Active	To show/hide the module/feature in the mobile application.
Access Category	Enable/disable extension field based on user access: <ul style="list-style-type: none"> • T-Transaction Code • U-User Group • R-Role • A-Authorization Object.
Access Value	This field is used for data related to security. Based on the access category, data in this field needs to be maintained. For example, if you maintain a transaction code in the Access Category field then you must enter the t-code name in this field. Module/feature is displayed in the mobile application only if the user has access to the transaction code.

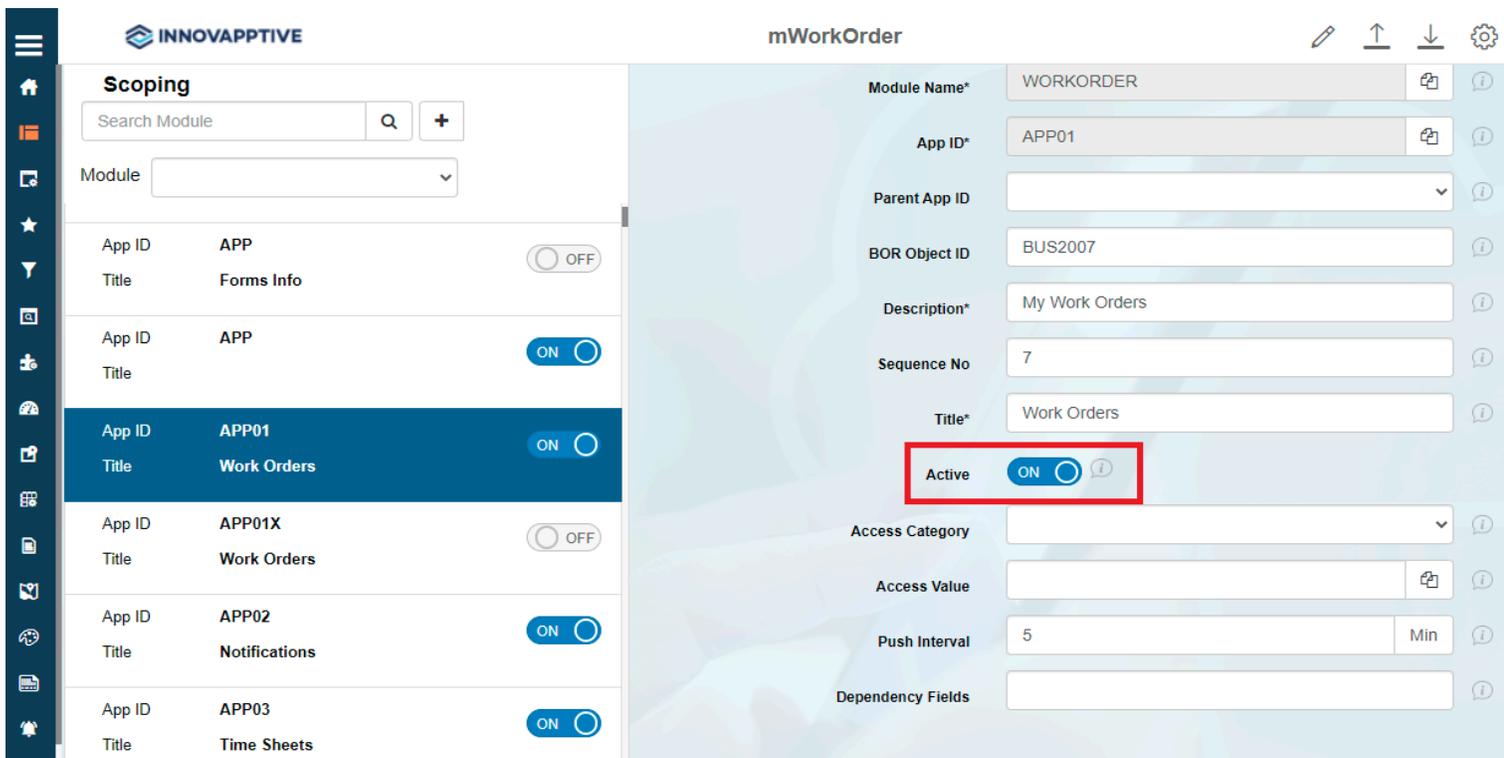
3.2. Enable/disable modules and features for all users (application level)

You can enable or disable modules / features that are not required for all users in the organization.

To enable / disable a module at the application level:

1. Click **Scoping** on the left panel.
2. Enter the App ID or name of module in the search field.
You can also select the module name in the **Module** field and filter the App IDs.
3. Select the App ID you want to enable / disable.
4. Turn ON / OFF the **ACTIVE** toggle switch.
5. Click **Save**.

Figure 3-1 Enable or Disable Module



Following are the App IDs or Scoping IDs of the main modules:

Table 3-2 App IDs of Main Modules

Module	App ID
Dashboard	APPDBD

Module	App ID
Notifications	APP02
Work Orders	APP01
Equipment	APP05
Functional Locations	APP06
Operator Rounds (UI5)	APP13
Operator Rounds (Mobile)	OPRDS
Timesheets	APP03
Scheduling Overview	APP12
Measuring Points	APP04
Inspection Lots	APP07
Usage Decision	APP08
Crew Management	APP09
Technical Objects	APP14

3.3. Enable / Disable modules and features for specific users

You can disable or enable modules / features to a specific set of roles / users. This helps customize application based on the job function.

To enable or disable modules / features to a few users in your organization:

1. Click **Scoping** on the left panel.
2. Enter the App ID or name of the module/feature in the search field.
You can also select the module name in the **Module** field and filter the App IDs.
3. Select the App ID you want to enable / disable.
4. Turn **ON / OFF** the **ACTIVE** toggle switch.

5. Select the **Access Category** from the **Transaction Code, User Group, Role, Authorization Group** options.
6. Specify the **Access Value** for the Access Category.

For example, when you select MIGO as access value for Transaction Code, users who have SAP security access to MIGO transaction can view the module/sub-module in the mobile application.

7. Click **Save**.

3.4. Enable Features that are not enabled with preset configuration spreadsheets

When you upload RACE™ preset configuration spreadsheets, only the core business features are enabled. Non-standard features developed for a few customers are not enabled when you import the preset configuration spreadsheets.

You can enable these features, if required, by your business. To enable / disable these special features:

1. Click **Scoping** on the left panel.
2. Enter the App ID.
3. Select the App ID.
4. Turn **ON / OFF** the **ACTIVE** toggle switch.
5. If you want to turn on / off the scanner options based on the access category:
 - a. Select the **Access Category** from the **Transaction Code, User Group, Role, Authorization Group** options.
 - b. Specify the **Access Value** for the Access Category.

For example, when you select MIGO as access value for Transaction Code, users who have SAP security access to MIGO transaction can view the module/sub-module in the mobile application.

6. Click **Save**.

3.4.1. Features not enabled by default in mInventory

The following features are not enabled by default in mInventory.

Table 3-3 mInventory modules/features not enabled by default

App ID	Module / Feature
APP053	Cycle Count - Storage Bin Counting
APP057	Cycle Count - Storage Bin Counting Book Quantity
DLOCK	Document Lock
APP076	Consignment Attachments
INVCCA	Inventory Cycle count Attachment
NO_SYN	No Offline Sync
CMBSCN	Default Combo Scan
BARGEN	Barcode Generation
ATOPNT	Auto Print
3DTCH	Enable 3D touch
SC_AGR	Scan Aggregate
PASWRD	Pass Word
GISTUP	GISTO with User Password
GIODUP	GIOD with User Password
GIORUP	GI Orders with User Password
GIRSUP	GI Reserv with User Password
GIMDUP	GI MatDoc with User Password
GIMDOC	GI MatDoc
APP027	GR - Material Document
APP015	GR - STO - Signature
GRPOUP	GRPO with User Password
GRSTUP	GRSTO with User Password
GRIDUP	GRID with User Password
GRODUP	GROD with User Password

Table 3-3 mInventory modules/features not enabled by default (continued)

App ID	Module / Feature
GRRDUP	GRRD with User Password
GRMDUP	GR MatDoc with User Password
APP091	Service Confirmation
APP092	SC - Signature
APP045	I/O - T/O Confirmation
PICKSB	Picking Storage Bin Split
APP050	Pick/Unpick
APP444	Reservations
GRBSUP	GRBS with User Password
PICKCS	Picking Combo Scan
SBLBL1	Storage Bin Label
LABEL3	Container Label
TRANS	Transfer
ADNI	Add New Module GR POSTING
ADNGIR	ADN GI RESERVATION
ADNPTR	ADN PutAway Transfer
CAP01	Custom Module
CUS100	Custom PO/STO Label Printing
ADD	DEMO Module
AGGCNT	Aggregate Quantity
APPWHS	Warehouse Cycle Counting Swipe
LOGUNR	Logout and Unregister
APPSCN	Default COMBO SCAN

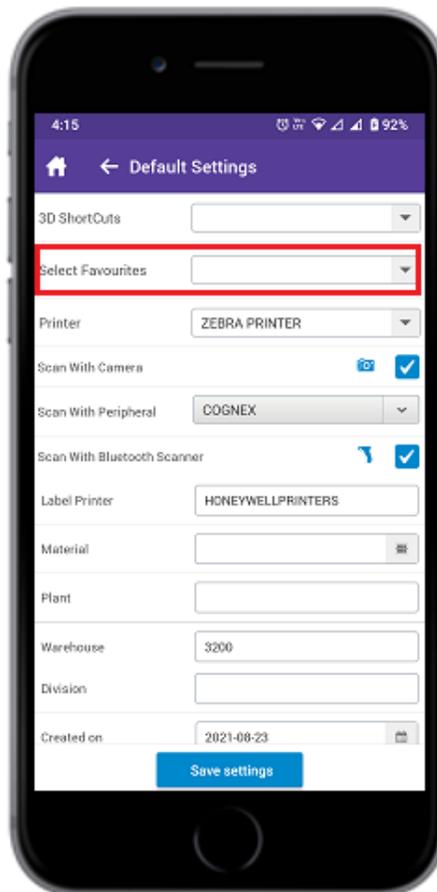
3.5. Add modules to Favorites

This configuration helps you add modules and submodules in the home screen and process transactions quickly.

To add modules to favorites:

1. In the **Home** screen, tap the User Profile  icon in the **Home** screen.
2. Tap **Default Settings**.
3. In the **Default Settings** screen, select the modules from the **Select Favourites** drop down that you want to add.
4. Tap **Save Settings**.
5. Selected modules are added to the Favourite list.

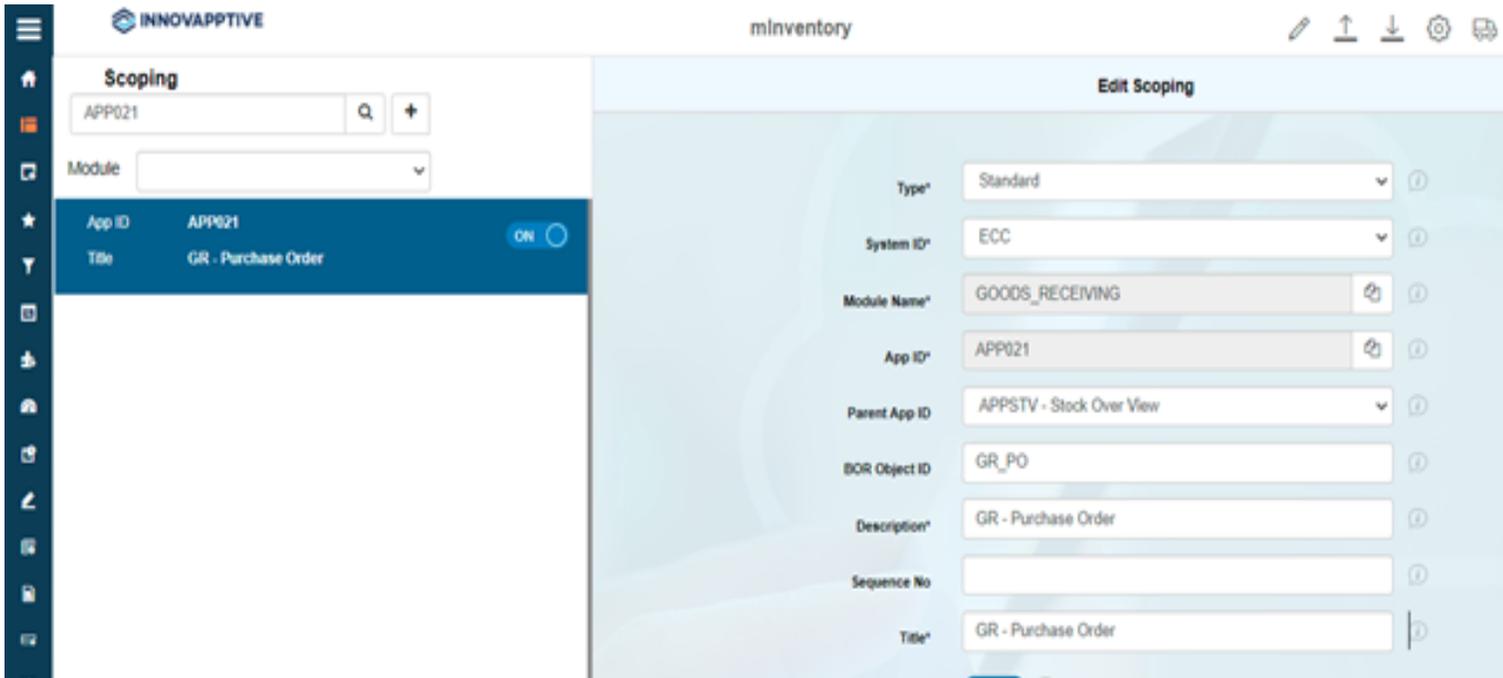
Figure 3-2 Add modules to favorites from the application



6. In RACE, click **Scoping** on the left panel.
7. Search the app ID (for example, APP021) in the Search bar.

8. Select the App ID (for example, APP021) on the left side.
9. In the **Edit Scoping** section, select **APPSTV – Stock Over View** in the **Parent App ID** drop down.
10. Click **Save**.

Figure 3-3 Configure Add modules to favourites



3.6. Configure Sub Module as Main Module

This configuration helps you to configure to view the sub modules as main modules and directly process the transactions from the Home screen. For example, you can access the Goods Issue Other – 201 sub module in the Home screen instead of navigating into the Goods Issues module.

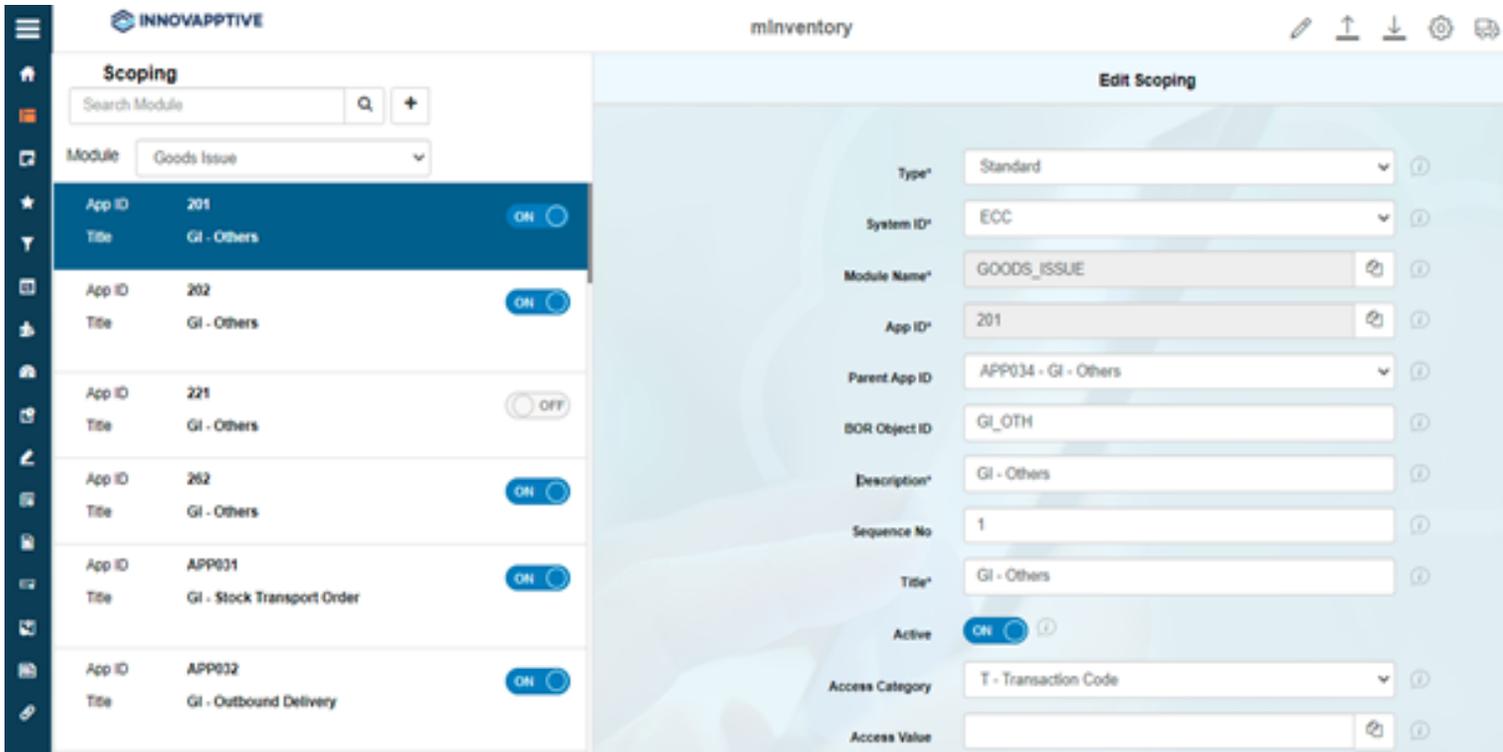
Every module (201 or 202) is an App ID, configure the Parent App ID (APP034 – GI – Others) in every module.

To configure sub module as main module:

| 3 - Enable/disable modules and features

1. Click **Scoping** on the left panel.
2. Search the app ID (for example, 201, 202, etc.) in the Search bar.
3. Select the App ID (for example, 201, 202, etc.) on the left side.
4. In the **Edit Scoping** section, select the sub module (for example, APP034 – GI – Others) in the **Parent App ID** drop down to add it as a main module.
5. Click **Save**.

Figure 3-4 Add Submodule as Main Module



4. Define Defaults, Filters and Search Criteria

Defaults, Filters and Dynamic Search configuration settings through RACE™.

The corresponding table in SAP NetWeaver Gateway is **/INVCEC/SEARCH**. Basic application configurations in this table are populated through the Add-On transport and you can update or modify them using RACE™.

This chapter helps you with the following:

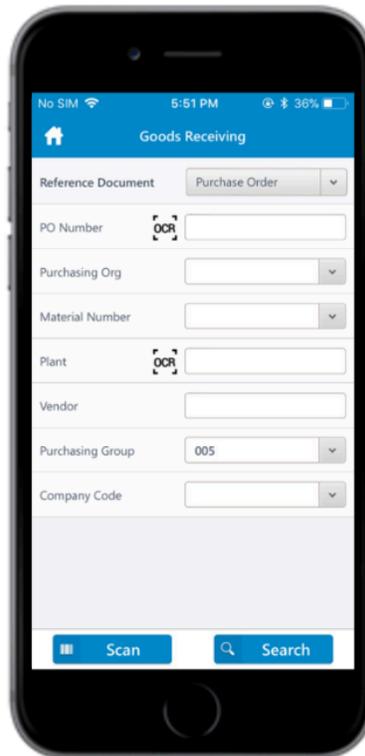
- [Configure search criteria \(on page 50\)](#)
- [Configure default values \(on page 57\)](#)
- [Configure data filters \(on page 71\)](#)

4.1. Configure search criteria

Define search criteria and provide mobile user the flexibility to search transaction data.

The following screen shows the mInventory mobile application's search screen for Goods Receiving - Purchase Order. The fields **PO Number**, **Purchasing Org**, **Material Number**, and **Plant** are configured using RACE™ Dynamic Search configuration.

Figure 4-1 Goods Receiving – Purchase Order Search



To configure search criteria using RACE™:

1. Click **Searches** on the left panel.

2. Click the **Add**  icon next to the search field.

You can also click the **Copy**  button on the details pane of an existing Search field to populate the properties in the **Create Search Field** section.

3. In the **Create Search Field** section, enter the following information:

Table 4-1 Search configuration attributes

Field	Description
Module	Select the module where the field is configured.
Screen	Select the screen within the module where the field is displayed.
Category	Select between Standard and Extension options to choose the configuration type.

Field	Description																
Table / BAPI Name	Select the table/BAPI to fetch the data from.																
Table Description	Auto-populated based on Table / BAPI Name .																
Field Name	Select the table/BAPI field to retrieve the field data.																
Field Description	Populated based on the Field Name .																
External Field	Enter the name of external system to integrate like Maximo.																
Search Type	Select between the Header and Item level options to perform the search with this field.																
UI Label	Enter the text to be shown on the application UI.																
UI Field Type	<p>Define the type of the field. Following are a few of the UI field types available for mInventory:</p> <p>Table 4-2 UI Field Types</p> <table border="1"> <thead> <tr> <th>Field Type ID</th> <th>Field Type</th> </tr> </thead> <tbody> <tr> <td>DD</td> <td>Drop Down</td> </tr> <tr> <td>DF</td> <td>Date Field</td> </tr> <tr> <td>TF</td> <td>Text Field</td> </tr> <tr> <td>SF</td> <td>Scan Field</td> </tr> <tr> <td>ID</td> <td>Input Drop Down</td> </tr> <tr> <td>DFR</td> <td>Date Field Range</td> </tr> <tr> <td>SID</td> <td>Scan Input Drop Down</td> </tr> </tbody> </table>	Field Type ID	Field Type	DD	Drop Down	DF	Date Field	TF	Text Field	SF	Scan Field	ID	Input Drop Down	DFR	Date Field Range	SID	Scan Input Drop Down
Field Type ID	Field Type																
DD	Drop Down																
DF	Date Field																
TF	Text Field																
SF	Scan Field																
ID	Input Drop Down																
DFR	Date Field Range																
SID	Scan Input Drop Down																
UI Position	Define the position for the extension compared to other fields on the search screen.																
Default Value	Enter the value to be populated in the search field.																
Active	To show/hide the field on the search screen.																

Field	Description
Mandatory	To set the field as Mandatory field on the search screen.
Validation Required	To configure validation rules for the search field.
UI Validation	<p>Specify the validations for user entered values.</p> <div data-bbox="769 512 1419 688" style="border: 1px solid #0070C0; border-radius: 10px; padding: 10px; background-color: #E6F2FF;">  Note: This field is displayed only if the Validation Required is enabled. </div>
UI Validation Message	<p>Enter the alert message to be displayed if the UI validation is applicable.</p> <div data-bbox="769 848 1419 1024" style="border: 1px solid #0070C0; border-radius: 10px; padding: 10px; background-color: #E6F2FF;">  Note: This field is displayed only if the Validation Required is enabled. </div>
Dropdown Table	<p>Select the Source table from where the values of a dropdown field are retrieved.</p> <div data-bbox="769 1184 1419 1360" style="border: 1px solid #0070C0; border-radius: 10px; padding: 10px; background-color: #E6F2FF;">  Note: This field is displayed only if the UI Field type is set to DD - Drop Down or ID - Input Dropdown. </div>
Dropdown Field	<p>Select the Field in the source table from where the values of a dropdown field are retrieved.</p> <div data-bbox="769 1583 1419 1759" style="border: 1px solid #0070C0; border-radius: 10px; padding: 10px; background-color: #E6F2FF;">  Note: This field is displayed only if the UI Field type is set to DD - Drop Down or ID - Input Dropdown. </div>

Field	Description
DD Dependency Field	<p>Select the Dependent field on the transaction screen that facilitates filtering of the field values.</p> <p>For example, Storage Location search field is dependent on Plant field.</p> <div data-bbox="769 506 1419 682" style="border: 1px solid #0070C0; border-radius: 10px; padding: 10px; background-color: #E6F2FF;"> <p> Note: Displayed only if the UI Field type is set to DD - Drop Down or ID - Input Dropdown.</p> </div>
Authorization Relevant	<p>Enable/disable security authorization relevancy. This is relevant for fields of type 'drop down', and when activated, filters values based on security org values set up in SAP security roles.</p>
Access Category	<p>Select the type of user authorization required to show the search field:</p> <ul style="list-style-type: none"> ◦ T-Transaction Code ◦ U-User Group ◦ R-Role ◦ A-Authorization Object.
Access Value	<p>Enter the value for the user authorization selected in the Access category field. For example, if you select Transaction Code in the Access Category field, enter the t-code name in this field. Module/feature is available to the users only if they have access to the transaction code.</p>
Text Required	<p>Define how the dropdown values are displayed. Possible values:</p> <ul style="list-style-type: none"> ◦ 0 - Not Required (not relevant) ◦ 1 - Only Description (only the description of the value is displayed) ◦ 2 - Key and Description (both the key and description of the value are displayed)

Field	Description
Text Table	<p>Select the Table to retrieve text for dropdown values.</p> <div data-bbox="769 386 1419 611" style="border: 1px solid #00a0c0; border-radius: 10px; padding: 10px; background-color: #e6f2ff;">  Note: This field is displayed only if the Text Required is set to Only Description or Key and Description. </div>
Text Field Name	<p>Select the table field name to retrieve the text. When the value in Text Required field is set to 1 or 2, the corresponding Description is fetched from the text table in SAP.</p> <div data-bbox="769 863 1419 1087" style="border: 1px solid #00a0c0; border-radius: 10px; padding: 10px; background-color: #e6f2ff;">  Note: This field is displayed only if the Text Required is set to Only Description or Key and Description. </div>
Text Key Field Name	<p>Select the field to define the relationship between the dropdown field and table.</p>
Collection	<p>Select the Source Collection from where the dropdown field values are retrieved.</p>
Collection Filter	<p>Select the field to filter the values retrieved from the Collection.</p>

4. Click **Create**.

 **Note:**
 For recommended settings, see the RACE™ Preset Configuration spreadsheet. This spreadsheet contains list of Search fields with attributes like Module Name, Screen, Field Name and Description.

4.2. Configure default search result

This configuration allows you to configure to get reservation numbers while searching work orders.

To configure default search result:

1. Click **Searches** on the left panel.
2. Search the GOODS_ISSUE module name in the **Search** bar.
3. Select the **GOODS_ISSUE** module with the **Work Order** label on the left side.
4. In the **Edit Search Field** section, update the following information:

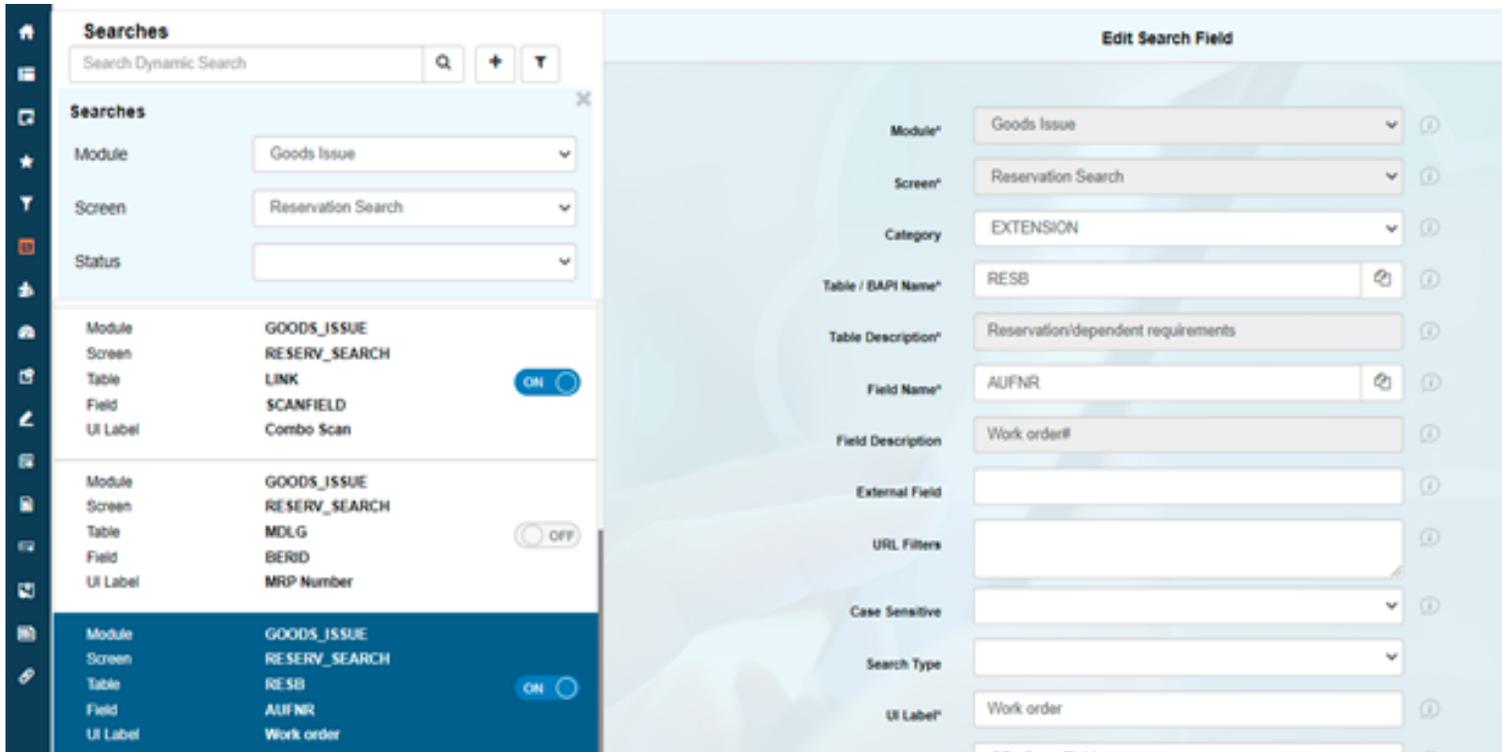
Table 4-3 Configure default search result

Field	Description
Module	Goods Issue
Screen	Reservation Search
Category	EXTENSION
Table / BAPI Name	RESB

Field	Description
Table Description	Reservation/dependent requirements
UI Label	Work Order

5. Click **Save**.

Figure 4-2 Configure Default Search Result

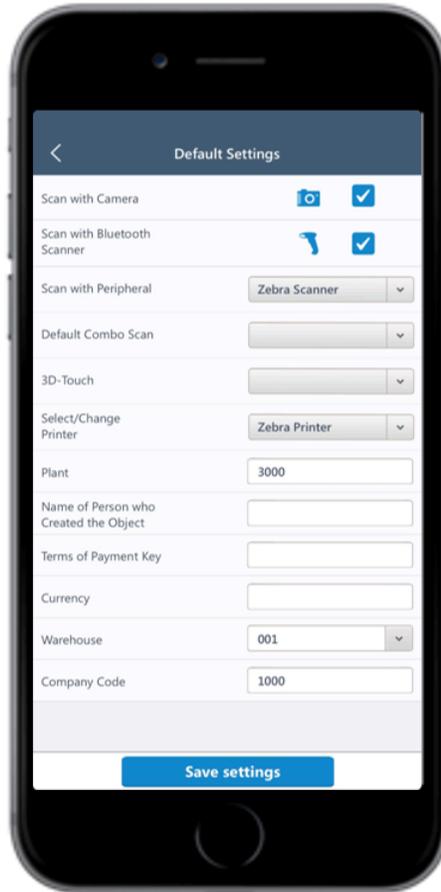


4.3. Configure default values

Configure key field values that are used repetitively in your everyday / regular tasks. These values, when configured, are populated across all the Search and Creation screens. The population of default values improve the productivity of the of the field workers.

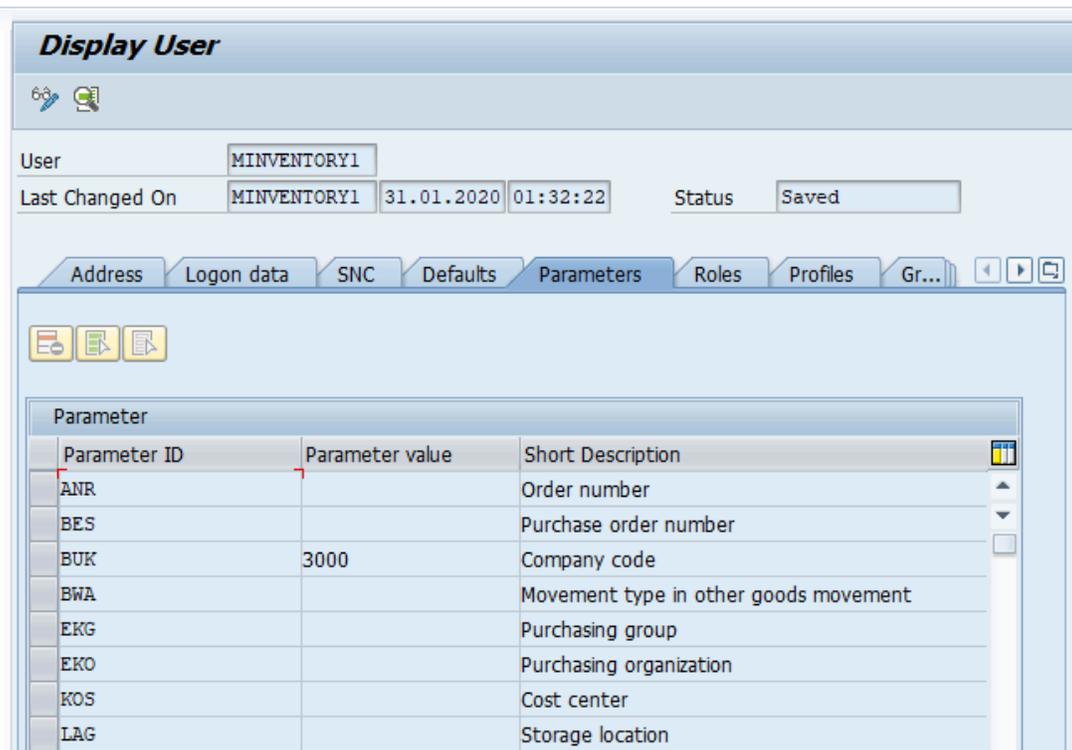
The following screen shows the mInventory mobile application’s **Default Settings** screen. Initially the values of fields in the default settings screen are populated from the Mobile User’s SAP user parameters. If user parameters are not set in the SAP, the default values configured in RACE™ are populated in the mobile. When the user updates the Default Settings, the application updates the user parameters in SAP.

Figure 4-3 Default Settings screen



The following screen shows the user parameters in SAP.

Figure 4-4 SAP User Parameters



To configure Default Settings using RACE™:

1. Click **Defaults** on the left panel.

2. Click the **Add**  icon next to the search field.

You can also click the **Copy**  button on the details pane of an existing Default field to populate the properties in the **Create Default Field** section.

3. In the **Create Default Field** section of the screen, enter the following information:

Table 4-4 Default Field configuration attributes

Field	Description
Module	Select the Module where the field is configured. For example, Default module.
Screen	Select the screen where the field is displayed. For example, Default Settings screen.
Table Name	Select the table from where the field data is retrieved.

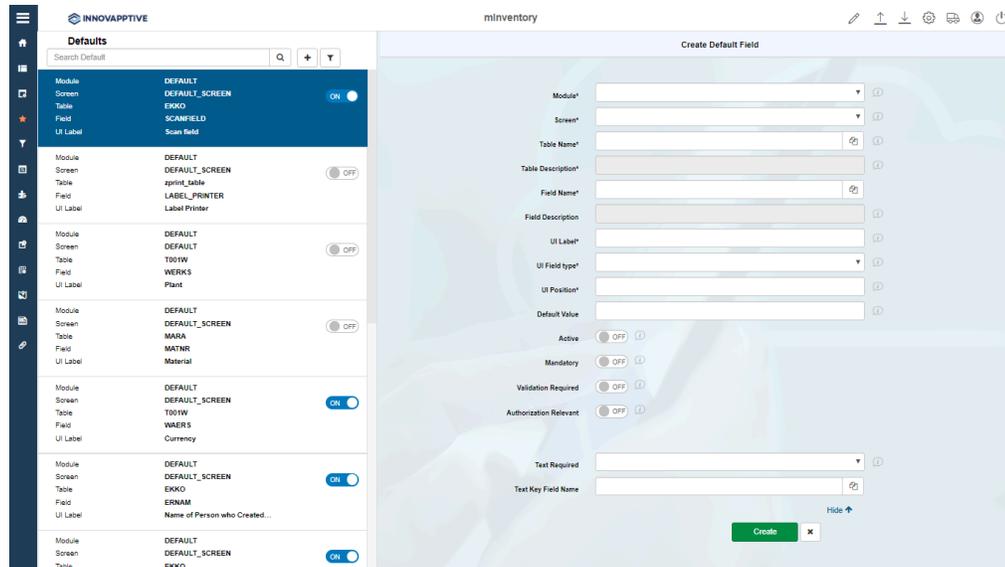
Field	Description																
Table Description	Auto-populated based on the Table Name .																
Field Name	Select the name of the field in SAP Table.																
Field Description	Populated based on the Field Name .																
UI Label	Enter the text to be shown on the application UI.																
UI Field Type	<p>Define the type of the field. Following are a few of the UI field types available for mInventory:</p> <p>Table 4-5 UI Field Types</p> <table border="1"> <thead> <tr> <th>Field Type ID</th> <th>Field Type</th> </tr> </thead> <tbody> <tr> <td>DD</td> <td>Drop Down</td> </tr> <tr> <td>DF</td> <td>Date Field</td> </tr> <tr> <td>TF</td> <td>Text Field</td> </tr> <tr> <td>SF</td> <td>Scan Field</td> </tr> <tr> <td>ID</td> <td>Input Drop Down</td> </tr> <tr> <td>DFR</td> <td>Date Field Range</td> </tr> <tr> <td>SID</td> <td>Scan Input Drop Down</td> </tr> </tbody> </table>	Field Type ID	Field Type	DD	Drop Down	DF	Date Field	TF	Text Field	SF	Scan Field	ID	Input Drop Down	DFR	Date Field Range	SID	Scan Input Drop Down
Field Type ID	Field Type																
DD	Drop Down																
DF	Date Field																
TF	Text Field																
SF	Scan Field																
ID	Input Drop Down																
DFR	Date Field Range																
SID	Scan Input Drop Down																
UI Position	Define the position for the default field compared to other fields on the transaction screen.																
Default Value	Enter the value to be populated in the default field.																
Active	To show/hide the field on the Default Settings screen.																
Mandatory	Helps you show the field as Mandatory field on the Default Settings screen.																
Validation Required	To configure validation rules for the UI field.																
UI Validation	Specify the validations for user entered values.																

Field	Description
	<div data-bbox="769 289 1417 470" style="border: 1px solid #00a0e3; border-radius: 10px; padding: 10px;">  Note: This field is displayed only if the Validation Required is enabled. </div>
UI Validation Message	Enter the alert message to be displayed if the UI validation is applicable. <div data-bbox="769 632 1417 812" style="border: 1px solid #00a0e3; border-radius: 10px; padding: 10px;">  Note: This field is displayed only if the Validation Required is enabled. </div>
Authorization Relevant	Enable/disable security authorization relevancy. This is relevant for fields of type 'drop down', and when activated, will filter values based on security org values set up in SAP security roles.
Dropdown Table	Select the Source table from where the values of a dropdown field are retrieved. <div data-bbox="769 1167 1417 1392" style="border: 1px solid #00a0e3; border-radius: 10px; padding: 10px;">  Note: This field is displayed only if the UI Field type is set to DD - Drop Down or ID - Input Dropdown. </div>
Dropdown Field	Select the Field in the source table from where the values of a dropdown field are retrieved. <div data-bbox="769 1556 1417 1780" style="border: 1px solid #00a0e3; border-radius: 10px; padding: 10px;">  Note: This field is displayed only if the UI Field type is set to DD - Drop Down or ID - Input Dropdown. </div>

Field	Description
DD Dependency Field	<p>Select the Dependent field on the transaction screen that facilitates filtering of the field values.</p> <p>For example, Storage Location search field is dependent on Plant field.</p> <div data-bbox="769 506 1417 682" style="border: 1px solid #00a0c0; border-radius: 10px; padding: 10px; background-color: #e6f2ff;"> <p> Note: Displayed only if the UI Field type is set to DD - Drop Down or ID - Input Dropdown.</p> </div>
Text Required	<p>Define how the dropdown values are displayed.</p> <p>Possible values:</p> <ul style="list-style-type: none"> ◦ 0 – Not Required (not relevant) ◦ 1 – Only Description (only the description of the value is displayed) ◦ 2 – Key and Description (both the key and description of the value are displayed)
Text Table	<p>Select the Table from where the text is retrieved.</p> <div data-bbox="769 1136 1417 1354" style="border: 1px solid #00a0c0; border-radius: 10px; padding: 10px; background-color: #e6f2ff;"> <p> Note: This field is displayed only if the Text Required is set to Only Description or Key and Description.</p> </div>
Text Field Name	<p>Select the table field name from where the text is retrieved. When the value in Text Required field is set to 1 or 2, the corresponding Description is fetched from the text table in SAP.</p> <div data-bbox="769 1606 1417 1829" style="border: 1px solid #00a0c0; border-radius: 10px; padding: 10px; background-color: #e6f2ff;"> <p> Note: This field is displayed only if the Text Required is set to Only Description or Key and Description.</p> </div>

Field	Description
Collection	Select the Source Collection from where the dropdown field values are retrieved.
Collection Filter	Select the field to filter the values retrieved from the Collection.

Figure 4-5 Create Default Field



4. Click **Create**.



Note:

For recommended settings, see the RACE™ Preset Configuration spreadsheet. This spreadsheet contains default values for key fields with attributes like Module Name and UI Field Type.

4.3.1. Enable / Disable last five values entered field as suggestions

When the mobile user enters a value in the field, the application shows the last five values entered for the field as suggestions without the need to enter the complete ID/text value in the field.

To Enable / Disable last five values entered field as suggestions:

1. Click **Defaults** on the left panel.
2. Enter AutoSuggestion in the search field.
3. Tap on the record and review the following information in the **Edit Default Field** section:

Table 4-6 Field Suggestions

Field	Value
Module	Default
Screen	Default Screen
Table Name	EKKO
Table Description	This value is Auto-populated.
Field Name	AUTOSUGG
Field Description	Scan Field
UI Label	AutoSuggestion
UI Field Type	Hide Input Field
UI Position	122
Default Value	WERKS,MATNR,LGNUM,VBELN,LGORT,TKNUM
Active	Toggle to enable or disable.

4. Click **Save**.

4.4. Configure Key Fields Label Colors

Highlight labels of key fields in different colors for better visibility and faster identification. For example, you can highlight field names such as PO Number, Vendor, Storage Location and so on using different colors.

To configure key fields label colors:

| 4 - Define Defaults, Filters and Search Criteria

1. Click **Defaults** on the left panel.
2. Select the **Default** module with the **FIELDSTYLE** field.

Defaults	
Module	DEFAULT
Screen	DEFAULT_SCREEN
Table	EKKONR
Field	AUTOSUGG
UI Label	AutoSuggestion
<input checked="" type="checkbox"/>	
Module	DEFAULT
Screen	DEFAULT_SCREEN
Table	EKKONR
Field	UOMFIELDS
UI Label	Uom Fields
<input checked="" type="checkbox"/>	
Module	DEFAULT
Screen	DEFAULT_SCREEN
Table	EKKONR
Field	OUTPUTTYPE
UI Label	Output Type
<input checked="" type="checkbox"/>	
Module	DEFAULT
Screen	DEFAULT_SCREEN
Table	EKKO
Field	FIELDSTYLE
UI Label	Field style
<input checked="" type="checkbox"/>	

Screen* Default Screen

Table Name* EKKO

Table Description* CO: Resource Prices

Field Name* FIELDSTYLE

Field Description

UI Label* Field style

UI Field type* Hide Input Field - HI

UI Position* 122

Default Value {}

Active

Mandatory

Validation Required

Authorization Relevant

3. Choose the relevant string and paste it in the **Default Value** field.

```
[
  {
    "FIELDNAME": "BDTER",
    "FONTSTYLE": "B",
    "COLOUR": "#DF9FBF"
  },
  {
    "FIELDNAME": "MATNR",
    "FONTSTYLE": "B",
    "COLOUR": "#CC9966"
  },
  {
    "FIELDNAME": "MAKTX",
    "FONTSTYLE": "B",
    "COLOUR": "#ACE600",
    "FONTSIZE": "M"
  },
],
```

| 4 – Define Defaults, Filters and Search Criteria

```
{
  "FIELDNAME": "WERKS",
  "FONTSTYLE": "B",
  "COLOUR": "#CCCC00",
  "FONTSIZE": "L"
},
{
  "FIELDNAME": "LGORT",
  "FONTSTYLE": "B",
  "COLOUR": "#77B300",
  "FONTSIZE": "S"
},
{
  "FIELDNAME": "LGNUM",
  "FONTSTYLE": "B",
  "COLOUR": "#4D88FF"
},
{
  "FIELDNAME": "LGPLA",
  "FONTSTYLE": "B",
  "COLOUR": "#FF4DFF"
},
{
  "FIELDNAME": "EKORG",
  "FONTSTYLE": "B",
  "COLOUR": "#FF4DFF"
},
{
  "FIELDNAME": "EBELN",
  "FONTSTYLE": "B",
  "COLOUR": "#FF4DFF"
},
{
  "FIELDNAME": "VBELN",
  "FONTSTYLE": "B",
  "COLOUR": "#FF4DFF"
},
}
```

| 4 – Define Defaults, Filters and Search Criteria

```
{  
  "FIELDNAME": "KUNAG",  
  "FONTSTYLE": "B",  
  "COLOUR": "#FF4DFD"  
},  
{  
  "FIELDNAME": "UALBG",  
  "FONTSTYLE": "B",  
  "COLOUR": "#F41A21"  
},  
{  
  "FIELDNAME": "TKNUM",  
  "FONTSTYLE": "B",  
  "COLOUR": "#F41A21"  
},  
{  
  "FIELDNAME": "MBLNR",  
  "FONTSTYLE": "B",  
  "COLOUR": "#F41A21"  
},  
{  
  "FIELDNAME": "ZEILE",  
  "FONTSTYLE": "B",  
  "COLOUR": "#F41A21"  
},  
{  
  "FIELDNAME": "RESWK",  
  "FONTSTYLE": "B",  
  "COLOUR": "#F41A21"  
},  
{  
  "FIELDNAME": "MOVETYPEDES",  
  "FONTSTYLE": "B",  
  "COLOUR": "#F41A21"  
},  
{  
  "FIELDNAME": "MATERIAL",
```

| 4 – Define Defaults, Filters and Search Criteria

```
"FONTSTYLE": "B",  
"COLOUR": "#F41A21"  
},  
{  
  "FIELDNAME": "TBNUM",  
  "FONTSTYLE": "B",  
  "COLOUR": "#F41A21"  
},  
{  
  "FIELDNAME": "EXIDV",  
  "FONTSTYLE": "B",  
  "COLOUR": "#F41A21"  
},  
{  
  "FIELDNAME": "BWART",  
  "FONTSTYLE": "B",  
  "COLOUR": "#F41A25"  
},  
{  
  "FIELDNAME": "MOVEPLANT",  
  "FONTSTYLE": "B",  
  "COLOUR": "#77B300"  
},  
{  
  "FIELDNAME": "LGPBE",  
  "FONTSTYLE": "B",  
  "COLOUR": "#77B300"  
},  
{  
  "FIELDNAME": "CNTNRNR",  
  "FONTSTYLE": "B",  
  "COLOUR": "#77B300"  
}  
}
```

For example, if you want to highlight Requirement Date field name, copy the following BDTER sting and paste it in the Default value field.

| 4 – Define Defaults, Filters and Search Criteria

```
{
  "FIELDNAME": "BDTER",
  "FONTSTYLE": "B",
  "COLOUR": "#DF9FBF"
}
```

The following table contains the strings for Field Names:

String Name	Key Field Name
BDTER	Requirement Date
MATNR	Material Number
MAKTX	Material Description
WERKS	Plant
LGORT	Storage Location
LGNUM	Warehouse Number
LGPLA	Storage Type
EKORG	Purchase Organization
EBELN	Purchase Order
VBELN	Delivery
KUNAG	Customer Number
UALBG	Actual Load Start Time
TKNUM	Shipment Number
MBLNR	Material Document Number
ZEILE	Document Item Number
RESWK	Supplying Plant
MOVETPEDES	Movement Types Description
MATERIAL	Material
TBNUM	TR Number
EXIDV	Handling Unit Number

BWART	Movement Type
MOVEPLANT	Receiving Plant
LGPBE	Storage bin
CNTNRNR	Container Number

4. Click **Save**.

4.5. Configure Central Scan

This configuration allows you to scan records using the Central Scanning button and instantly navigate to the record based on the configuration of string in Default Settings.

To configure central scan:

1. Click **Defaults** on the left panel.
2. Search the Default module name in the **Search** bar.
3. Select the **Default** module with the **DASHBOARDSCAN** field on the left side.
4. Choose the relevant string and paste it in the **Default Value** field.

```
{ "DASHBOARDSCAN": [
  { "APPID": "APP021", "SERIES": "4500,5200", "FIELDNAME": "EBELN", "OPTIONAL": "" },
  { "APPID": "APPE01", "SERIES": "1800", "FIELDNAME": "REFDOCNO_ERP_I", "OPTIONAL": "" },
  { "APPID": "APP260", "SERIES": "0000000000100", "FIELDNAME": "LENUM", "OPTIONAL": "" },
  { "APPID": "APP153", "SERIES": "100001", "FIELDNAME": "IBLNR", "OPTIONAL": "" },
  { "APPID": "APP154", "SERIES": "12", "FIELDNAME": "IVNUM", "OPTIONAL": "" },
  { "APPID": "APPE07", "SERIES": "800000", "FIELDNAME": "DOCNUMBER", "OPTIONAL": "" },
  { "APPID": "APP024", "SERIES": "800", "FIELDNAME": "VBELN", "OPTIONAL": "" },
  { "APPID": "APP032", "SERIES": "1000", "FIELDNAME": "VBELN", "OPTIONAL": "" },
  { "APPID": "APP045", "SERIES": "12,55,522,57,59", "FIELDNAME": "TANUM", "OPTIONAL": "" },
  { "APPID": "APP027", "SERIES": "4900", "FIELDNAME": "MBLNR", "OPTIONAL": "" },
```

| 4 - Define Defaults, Filters and Search Criteria

```
{ "APPID": "APP023", "SERIES": "10000", "FIELDNAME": "VBELN", "OPTIONAL": "" },  
{ "APPID": "APP300", "SERIES": "6000", "FIELDNAME": "AUFNR", "OPTIONAL": "" },  
{ "APPID": "APP039", "SERIES": "3000", "FIELDNAME": "RSNUM", "OPTIONAL": "" },  
{ "APPID": "APP033", "SERIES": "5034", "FIELDNAME": "AUFNR", "OPTIONAL": "" } ] }
```

5. Click **Save**.

The screenshot shows the RACE™ configuration interface for the 'minventory' app. On the left, there is a 'Defaults' sidebar with a search bar and a list of configurations. The main area is titled 'Create Default Field' and contains a form with the following fields:

- Module* (dropdown)
- Screen* (dropdown)
- Table Name* (text input)
- Table Description* (text input)
- Field Name* (text input)
- Field Description (text input)
- UI Label* (text input)
- UI Field type* (dropdown)
- UI Position* (text input)
- Default Value (text input)
- Active (toggle, OFF)
- Mandatory (toggle, OFF)
- Validation Required (toggle, OFF)
- Authorization Relevant (toggle, OFF)
- Text Required (dropdown)
- Text Key Field Name (text input)

A 'Create' button is located at the bottom right of the form.

4.6. Configure data filters

SAP tables hold a lot of data. Pulling the entire table increases the data volume and significantly impacts offline sync and overall performance of the app.

You can configure filters to pull specific data into modules and sub modules of your mobile application using the Filters feature in RACE™.

Filters help users focus on data which they are supposed to work on. You can set filter in the following ways:

- Authorization object
- Single filter value
- Multiple filter values (not based on range)
- Including or Excluding defined values/range
- Range of values (by using the “Select Option” field)

To configure data filters:

1. Click **Filters** on the left panel.

2. Click the **Add**  icon next to the search field.

You can also click the **Copy**  button on the details pane of an existing Filter field to populate the properties in the **Create Filter Field** section.

3. In the **Create Filter Field** section, enter the following information:

Table 4-7 Data Filter configuration attributes

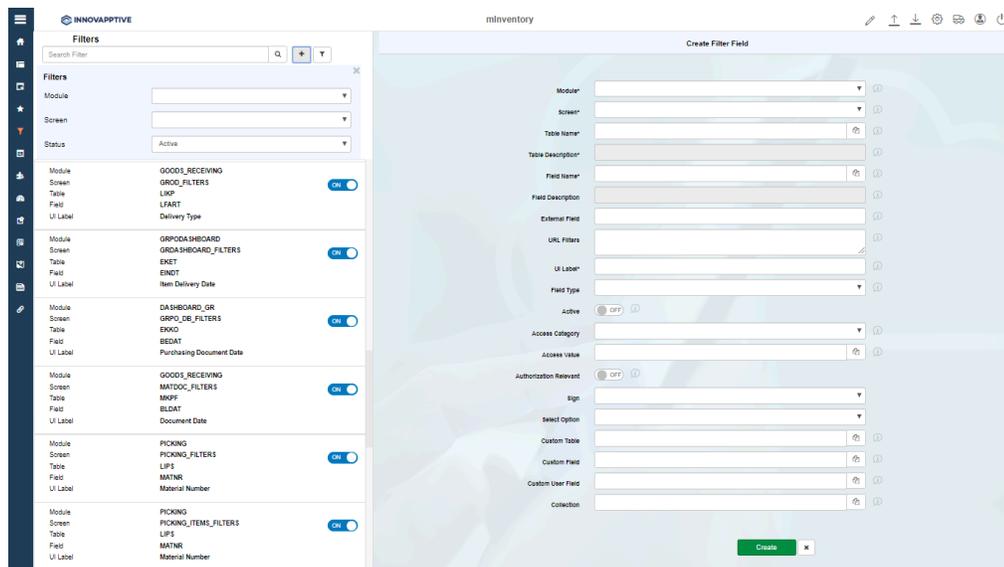
Field	Description						
Module	Select the name of the Module where the filter is configured .						
Screen	Select the name of the screen where the records are filtered. For example, Purchase Order List.						
Table Name	Select the table from where the data is retrieved.						
Table Description	Auto-populated based on the Table Name .						
Field Name	Select the standard field in the SAP Table.						
Field Description	Populated based on the Field Name .						
UI Label	Enter the text to be shown on the application UI.						
Field Type	<p>Define the type of the field. Following are a few of the UI field types available for mInventory:</p> <p>Table 4-8 UI Field Types</p> <table border="1"> <thead> <tr> <th>Field Type ID</th> <th>Field Type</th> </tr> </thead> <tbody> <tr> <td>DD</td> <td>Drop Down</td> </tr> <tr> <td>DF</td> <td>Date Field</td> </tr> </tbody> </table>	Field Type ID	Field Type	DD	Drop Down	DF	Date Field
Field Type ID	Field Type						
DD	Drop Down						
DF	Date Field						

Field	Description	
	Field Type ID	Field Type
	TF	Text Field
	SF	Scan Field
	ID	Input Drop Down
	DFR	Date Field Range
	SID	Scan Input Drop Down
Active	To enable or disable the data filter.	
Access Category	Enable/disable data filter based on user access: <ul style="list-style-type: none"> ◦ T-Transaction Code ◦ U-User Group ◦ R-Role ◦ A-Authorization Object. 	
Access Value	This field is used for data related to security. Based on the access category, value in this field must be maintained. For example, if you configure a transaction code in the Access Category field then the t-code name must be specified in this field. Data filter configured is displayed in the mobile application only if the transaction code is assigned to the user.	
Authorization Relevant	Enable/disable security authorization relevancy. This is relevant for fields of type 'drop down', and when activated, will filter values based on security org values set up in SAP security roles.	
Sign	Select whether to include the values defined in Low Value and High Value fields to filter data.	
Select Option	Select an Operation to filter data based on the specified Low Value and High Value . Possible values:	

Field	Description
	<ul style="list-style-type: none"> ◦ Equal To ◦ Not Equal To ◦ Between Lower and Upper Value ◦ Outside Lower and Upper Value ◦ Contains the Pattern ◦ Does Not Contain the Pattern ◦ Less Than ◦ Less Than or Equal To ◦ Greater Than ◦ Greater Than or Equal To
Low Value	<p>Enter the lower value based on which data is filtered and shown in the mobile application.</p> <div style="border: 1px solid #0070C0; border-radius: 10px; padding: 10px; background-color: #E6F2FF;"> <p> Note: Displayed only if the Select Option field is set to Between Lower and Upper Value and Outside Lower and Upper Value.</p> </div>
High Value	<p>Enter the upper value based on which data is filtered and shown in the mobile application.</p> <div style="border: 1px solid #0070C0; border-radius: 10px; padding: 10px; background-color: #E6F2FF;"> <p> Note: Displayed only if the Select Option field is set to Between Lower and Upper Value or Outside Lower and Upper Value.</p> </div>
Filters	<p>Values based on which data is filtered and shown in the mobile application. For example, if you enter purchase order filters PO1, PO100, all the purchase orders of these series are shown in the GRPO list screen.</p>
Custom Table	<p>Select the custom table in SAP from where the data is retrieved.</p>

Field	Description
Custom Field	Select the field in SAP custom table.

Figure 4-6 Create Filter Field



4. Click **Create**.



Note:

For recommended settings, see the RACE™ Preset Configuration spreadsheet. This spreadsheet contains Filters configured with attributes like Module Name, Screen, Field Name and UI Label.

4.7. Configure Document Type Filters in Purchase Requisition Creation

This configuration allows you to filter the document type while creating the purchase requisition.

To configure Document Type filters:

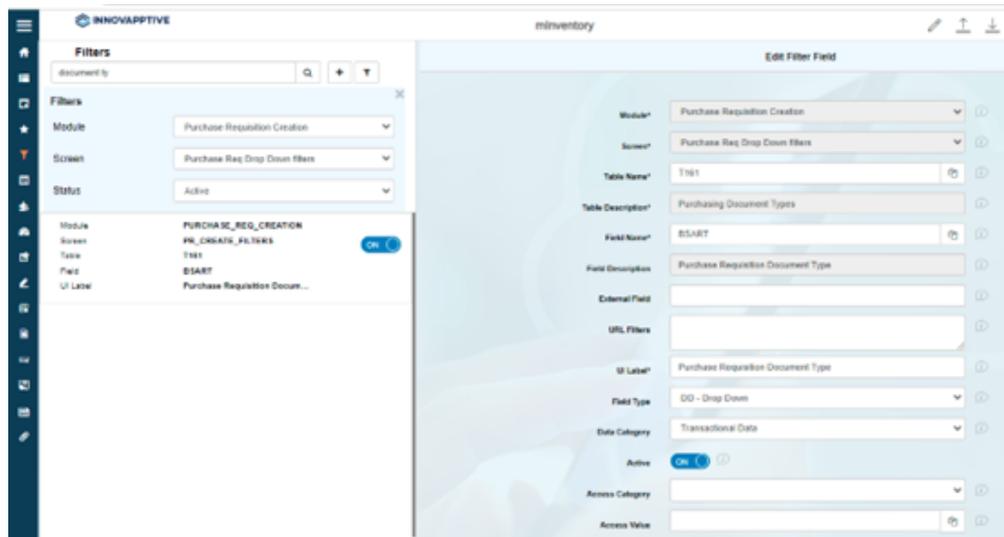
1. Click **Filters** on the left panel.
2. Search the label name Purchase Requisition Document in the **Search** bar.
3. Select the extension with the label name **Purchase Requisition Document** on the left side.
4. In the **Edit Filter Field** section, update the following information:

Field	Description
Module	Purchase Requisition Creation
Screen	Purchase Req Drop Down Filters
Table Name	T161
Table Description	Purchasing Document Types
Field Name	BSART
Field Description	Purchase Requisition Document Type
UI Label	Purchase Requisition Document Type
Field Type	DD – Drop Down
Data Category	Transactional Data
Active	ON
Sign	Including Defined Values/Range

Field	Description
Select Option	Equal To (= Low) - EQ
Filters	NB, FO

5. Click **Save**.

Figure 4-7 Configure Document Type Filters



5. Create custom screen for an existing module

Innovapptive provide you modules and screens out of the box to cater to your core business processes. However, you can also create additional screens on the fly using RACE™ to cater to your business requirements.



Note:

You can create additional screens only for the Label Printing module.

To create additional screens for the Label Printing module:

1. Click **Modules and Screens** on the left panel.



2. Click the **Add** icon next to the search field and click **Create Screen**.

3. In the **Create Modules & Screens** section, enter the following information:

Table 5-1 Dynamic Screen configuration attributes

Field	Description
Module Name	LABEL_PRINTING
Screen Name	Enter the name of the screen.
Support UI Fields	Select the type of fields that can be configured for the screen.
Get RFC	Select the function module that fetches data from SAP system.
Post RFC	Select the function module that posts data to SAP system.
Get BADI	Select the BADI that fetches data from SAP system.
Post BADI	Select the BADI that posts data to SAP system.
Entity Set	Select the collection that stores the Module and screen related data.

Field	Description
Entity Type	Auto-populated based on Entity Set selected.
Recommended Tables	Enter the SAP tables that are used to fetch data for the screen.
Standard BAPI	Enter the name of the BAPI for the module and screen.

4. Click **Create**.

5.1. Configure custom screen components

Once the screen properties are defined, configure the screen components like tabs, buttons, and labels.

Configurations are stored in `/INVCEC/SCRCONF` table in SAP NetWeaver Gateway. Basic application configurations are updated in this table using the Add-on / transport and you can update or enhance them using RACE™.

To configure screen components using RACE™:

1. Click **Screens** on the left panel.

2. Click the **Add**  icon next to the search field and click **Create Screen**.

You can also click the **Copy**  button on the details pane of an existing Screen configuration to populate the properties in the **Create Screen** section.

3. In the **Create Screen** section, enter this information:

Table 5-2 Screen attributes

Field	Description
Module Name	Select the module where the dynamic screen or element is configured.
Screen Name	Select the screen within the module where the dynamic screen or element is displayed.

Field	Description
Screen Type	Type of screen to configure such as Create Screen, Detail Screen, List Screen or Dynamic Tab.
Screen Area	Position of the screen such as header, footer and body where the dynamic form/tab is displayed.
Element	Element to be displayed on the screen such as Tab, Form, Button and Label.
Element Type	The sub-type of Element such as Multi-Form Tab, Line Item Tab or Draft or Submit Buttons.
Sequence No.	Define the sequence or position of the form/tab or element on the application UI.
UI Label	Enter the text to be shown on the application UI.
UI Position	Define alignment for form/tab or element on the screen such as Center, Left or Right.
Action	Defines the screen navigation for the element.
Action Type	Defines the type of the action to be completed for the screen navigation by the element.
Style	Tap to define Style properties for screen element like Icon, Icon Color, Background Color and Text Color in the Select Styles window that appears.
Layout	Select the Layout order (Horizontal or Vertical) for the element.

| 5 - Create custom screen for an existing module

Field	Description
Data Provider	Defines the source to retrieve data for the element.
Data Provider Key	Specify the fields to retrieve data from the data provider.
Active	Enable or disable the dynamic screen or element.

4. Click **Create**.

6. Configure Extensions

Extensions help you configure additional fields and properties, modify the properties of standard fields or create and map a new field from the SAP system.

Data flows to the app in the form of collections. A collection is a group of fields (Standard fields) which are pre-configured in the app to execute the business transactions. A collection also includes a few optional fields based on standard industry practices. You can modify the behavior of standard fields using the Extensions menu. For example, you can hide the standard field if it is not required for your transactions or change the field type or the UI Label.

An Extension is an additional field that you can configure and enable it. Changes done in the Extensions menu are stored in the SAP NetWeaver Gateway table: /INVCEC/COCKPIT and the transaction code: /n/INVCEC/COCKPIT.

Learn how to configure additional fields and properties on the transaction screens (list, header, item details).

To configure fields for transaction screens:

1. Click **Extensions** on the left panel.

2. Click the **Add**  icon next to the search field.

You can also click the **Copy**  button on the details pane of an existing extension to populate the properties in the **Create Extension** section.

3. In the **Create Extension** section, enter this information:

Table 6-1 Extension configuration attributes

Field	Description
Module Name	Select the module where the field is configured.
Screen Name	Select the screen within the module where the field is displayed.
Category	Select between Standard and Extension options to choose the configuration type.

Field	Description
	<div style="border: 1px solid #0070C0; border-radius: 10px; padding: 10px; background-color: #E6F2FF;">  Note: Select Standard to customize the type of input required to be displayed on the header. </div>
Section Name	Helps you group the Extension fields into sections for retrievals or Posting Forms.
Section Position	Define the position of section within the screen relevant to other sections.
Source Type	Select the source like BAPI or SAP Table from where the data is retrieved. <ul style="list-style-type: none"> a. BAPI: Select this option if the extension field is part of the BAPI structure. And the value entered in the extension field is posted to the backend ECC. b. Table: Select this option if the extension field is part of the SAP table. And the value in the extension field is pulled from the backend ECC table.
Entity Set	Collection to which the Standard field belongs. <div style="border: 1px solid #0070C0; border-radius: 10px; padding: 10px; background-color: #E6F2FF; margin-top: 10px;">  Note: Auto-populated based on Module and Screen selected if the Category field is set to Standard. For example, this field is populated with GRPOHeaderCollection if the Goods Receiving module and PO Header screen are selected. </div>
Entity Type	Auto-populated based on Module and Screen selected if the Category field is set to Standard.
Table / BAPI Name	Select the table/BAPI to fetch the data from.

Field	Description																
	<div style="border: 1px solid #0070C0; border-radius: 10px; padding: 10px; background-color: #E6F2FF;">  Note: This field is applicable only if you selected Extension in the Category field. </div>																
Table / BAPI Description	Auto-populated based on Table / BAPI Name . <div style="border: 1px solid #0070C0; border-radius: 10px; padding: 10px; background-color: #E6F2FF;">  Note: This field is applicable only if you selected Extension in the Category field. </div>																
Field Name	Select the table/BAPI field to retrieve the field data.																
Field Description	Populated based on the Field Name .																
UI Label	Enter the text to be shown on the application UI.																
Field Type	Define the type of the field. Following are a few of the UI field types available for mInventory: Table 6-2 UI Field Types <table border="1" data-bbox="768 1203 1419 1705"> <thead> <tr> <th data-bbox="768 1203 1092 1266">Field Type ID</th> <th data-bbox="1092 1203 1419 1266">Field Type</th> </tr> </thead> <tbody> <tr> <td data-bbox="768 1266 1092 1329">DD</td> <td data-bbox="1092 1266 1419 1329">Drop Down</td> </tr> <tr> <td data-bbox="768 1329 1092 1392">DF</td> <td data-bbox="1092 1329 1419 1392">Date Field</td> </tr> <tr> <td data-bbox="768 1392 1092 1455">TF</td> <td data-bbox="1092 1392 1419 1455">Text Field</td> </tr> <tr> <td data-bbox="768 1455 1092 1518">SF</td> <td data-bbox="1092 1455 1419 1518">Scan Field</td> </tr> <tr> <td data-bbox="768 1518 1092 1581">ID</td> <td data-bbox="1092 1518 1419 1581">Input Drop Down</td> </tr> <tr> <td data-bbox="768 1581 1092 1644">DFR</td> <td data-bbox="1092 1581 1419 1644">Date Field Range</td> </tr> <tr> <td data-bbox="768 1644 1092 1705">SID</td> <td data-bbox="1092 1644 1419 1705">Scan Input Drop Down</td> </tr> </tbody> </table>	Field Type ID	Field Type	DD	Drop Down	DF	Date Field	TF	Text Field	SF	Scan Field	ID	Input Drop Down	DFR	Date Field Range	SID	Scan Input Drop Down
Field Type ID	Field Type																
DD	Drop Down																
DF	Date Field																
TF	Text Field																
SF	Scan Field																
ID	Input Drop Down																
DFR	Date Field Range																
SID	Scan Input Drop Down																
UI Position	Position for the extension compared to other fields on the transaction screen.																
Default Value	Value to be populated in the extension field.																

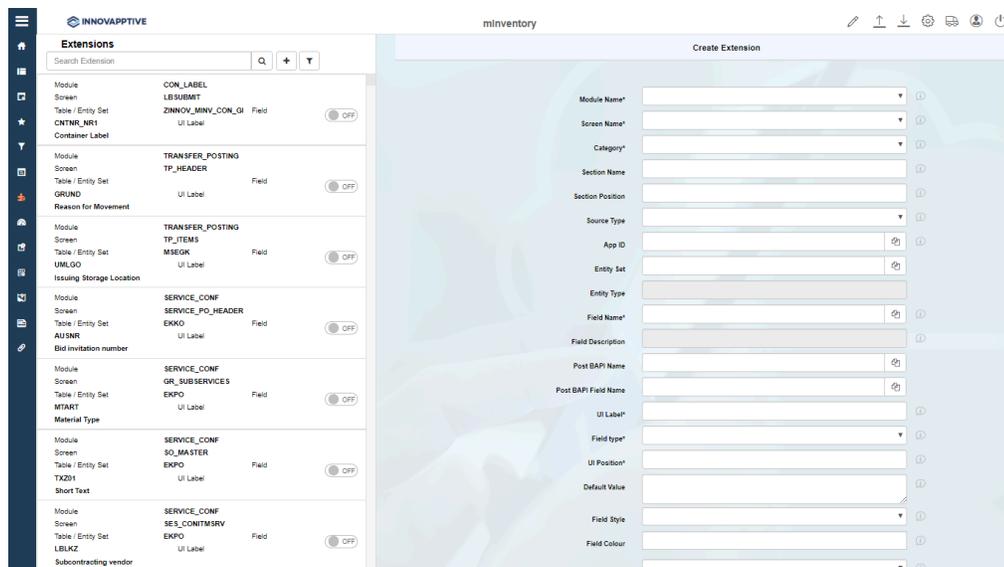
Field	Description
Case Sensitive	To show the extension field value in Uppercase or Lowercase.
Active	To show/hide the extension on the transaction screen.
Overview	Enable/disable the extension field in the Overview section of the transaction screen. For example, header fields and line item fields in the Item Overview list screen are displayed in the Overview section.
Detail	Enable/disable to show the extension in the Detail section of the transaction screen.
Mandatory	To show the extension as a Mandatory field on the transaction screen.
Validation Required	To configure validation rules for the extension field.
UI Validation	<p>Specify the validations for user entered values.</p> <div data-bbox="769 1125 1419 1304" style="border: 1px solid #0070C0; border-radius: 10px; padding: 10px; background-color: #E6F2FF;"> <p> Note: This field is displayed only if the Validation Required is enabled.</p> </div>
UI Validation Message	<p>Enter the alert message to be displayed if the UI validation is applicable.</p> <div data-bbox="769 1465 1419 1644" style="border: 1px solid #0070C0; border-radius: 10px; padding: 10px; background-color: #E6F2FF;"> <p> Note: This field is displayed only if the Validation Required is enabled.</p> </div>
Authorization Relevant	<p>Enable/disable security authorization relevancy. This is relevant for fields of type 'drop down', and when activated, will filter values based on security org values set up in SAP security roles.</p>

Field	Description
Access Category	<p>Enable/disable extension field based on user access:</p> <ul style="list-style-type: none"> ◦ T-Transaction Code ◦ U-User Group ◦ R-Role ◦ A-Authorization Object.
Access Value	<p>This field is used for data related to security. Based on the access category, value in this field must be maintained. For example, if you configure a transaction code in the Access Category field then the t-code name must be specified in this field. Extension configured is displayed in the mobile application only if the transaction code is assigned to the user.</p>
Dropdown Table	<p>Select the Source table from where the values of a dropdown field are retrieved.</p> <div style="border: 1px solid #00a0c0; border-radius: 10px; padding: 10px; margin-top: 10px;"> <p> Note: This field is displayed only if the UI Field type is set to DD - Drop Down or ID - Input Dropdown.</p> </div>
Dropdown Field	<p>Select the Field in the source table from where the values of a dropdown field are retrieved.</p> <div style="border: 1px solid #00a0c0; border-radius: 10px; padding: 10px; margin-top: 10px;"> <p> Note: This field is displayed only if the UI Field type is set to DD - Drop Down or ID - Input Dropdown.</p> </div>
DD Dependency Field	<p>Select the Dependent field on the transaction screen that facilitates filtering of the field values.</p>

Field	Description
	<p>For example, Storage Location search field is dependent on Plant field.</p> <div data-bbox="771 409 1421 588" style="border: 1px solid #00a0e3; border-radius: 10px; padding: 10px; background-color: #e6f2ff;">  Note: Displayed only if the UI Field type is set to DD - Drop Down or ID - Input Dropdown. </div>
Parent Table	Select the Table from where the field is retrieved.
Parent Key	Select the field to define the relationship between the dropdown field and table.
Condition	Enter the logic to show the configured field. For example, you can show an extension 'Supplying Plant' only if the Purchase Order type is UB (Internal Purchase Order).
Text Required	<p>Define how the dropdown values are displayed.</p> <p>Possible values:</p> <ul style="list-style-type: none"> ◦ 0 – Not Required (not relevant) ◦ 1 – Only Description (only the description of the value is displayed) ◦ 2 – Key and Description (both the key and description of the value are displayed)
Text Table	<p>Select the Table from where the text is retrieved.</p> <div data-bbox="771 1407 1421 1627" style="border: 1px solid #00a0e3; border-radius: 10px; padding: 10px; background-color: #e6f2ff;">  Note: This field is displayed only if the Text Required is set to Only Description or Key and Description. </div>
Text Field Name	Select the table field name from where the text is retrieved. When the value in the Text Required field is set to 1 or 2, the corresponding Description is fetched from the text table in SAP.

Field	Description
	<div style="border: 1px solid #0070C0; border-radius: 10px; padding: 10px;">  Note: This field is displayed only if the Text Required is set to Only Description or Key and Description. </div>
Text Key Field Name	Select the field to define the relationship between the dropdown field and table.

Figure 6-1 Create Extension



4. Click **Create**.



Note:

For recommended settings, see the RACE™ Preset Configuration spreadsheet. This spreadsheet contains fields configured as extensions with attributes like Module Name, Screen, UI Label and Field Type.

• **Extension Configuration**

Consider adding the extension field **Posting Date** in GR - Others module for Movement Type 201 and also populate the value to the Current Date. Note that Posting Date is a field at the Header level and not item level. Do the following configurations:

Table 6-3 Sample Extension Configuration

Field	Value
Module Name	Goods Receiving
Screen Name	Others Header
Category	Extension
Table/BAPI Name	BAPI2017_GM_HEAD_01
Field name	PSTNG_DATE
Post BAPI Name	This value is auto populated: BAPI_-GOODSMVT_CREATE
Post BAPI Field name	PSTNG_DATE
Field Type	DF - Date Field
Default Value	SY-DATUM

• **Standard Field Configuration**

Consider changing the UI type for **Batch** field on the GR-PO Line item level and enable it on PO Item screen in Overview and Details sections. Now **Batch** is a field in the **GRPOItemCollection** which brings data for PO line items for Goods Receiving. Do the following configurations:

Table 6-4 Sample Standard Field Configuration

Field	Value
Module Name	Goods Receiving
Screen Name	PO Items
Category	Standard
Entity Set	This value is auto populated: GRPOItem-Collection

Field	Value
Entity Type	This value is auto populated: GRPOItems
Field Name	CHARG
Post BAPI Name	This value is auto populated: BAPI_-GOODSMVT_CREATE
Post BAPI Field Name	BATCH
UI Label	Batch_test
Field type	ID - Input Dropdown

6.1. Configure GR Date and Unrestricted Quantity Extensions

This configuration allows you to view the Last Goods Received Date and Unrestricted Quantity of the material, which populates automatically while doing opportunity count in online mode.

To configure the Last Goods Received Date field:

1. Click **Extensions** on the left panel.
2. Search the field name Last GR Date in the **Search** bar.
3. Select the extension with the field name Last GR Date on the left side.
4. In the **Edit Extension** section, update the following information:

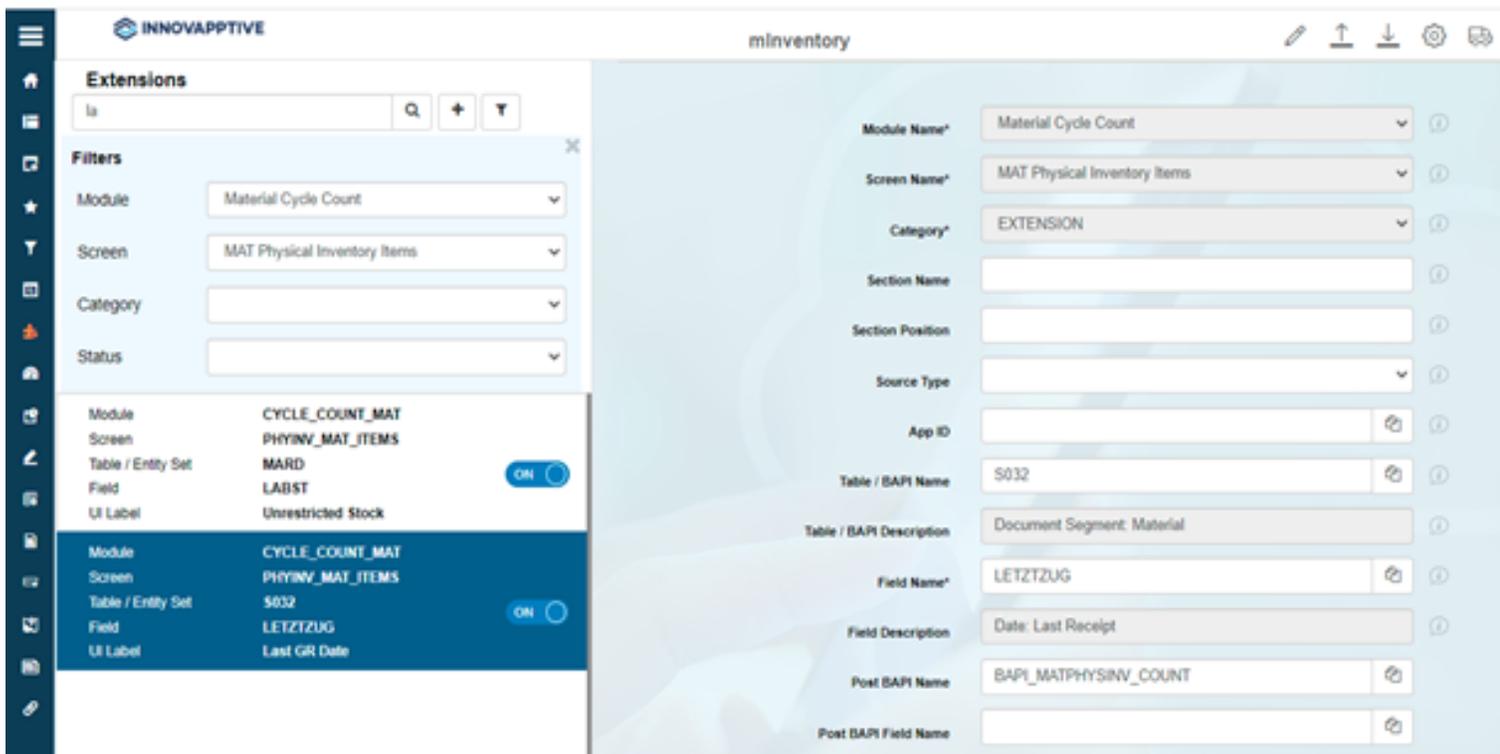
Table 6-5 Goods Received Date Configuration

Field	Description
Module Name	Material Cycle Count
Screen Name	MAT Physical Inventory Items
Category	EXTENSION
Table / BAPI Name	S032
Table / BAPI Description	Document Segment Material
Field Name	LETZTZUG
Field Description	Date Last Receipt
Post BAPI Name	BAPI_MATPHYSINV_COUNT

Field	Description
UI Label	Last GR Date
Field Type	DL – Date Label
UI Position	23
Active	ON
Overview	ON
Detail	ON
Mandatory	OFF
Authorization Relevant	OFF
Parent Table	/INVMIM/PHYSINV_ITEMS_LIST_S
Parent Key	MATNR, WERKS, LGORT
Validation Required	OFF

5. Click **Save**.

Figure 6-2 Configure Goods Received Date



To configure the Unrestricted Stock field:

1. Click **Extensions** on the left panel.
2. Search the field name Unrestricted Stock in the **Search** bar.
3. Select the extension with the field name Unrestricted Stock on the left side.
4. In the **Edit Extension** section, update the following information:

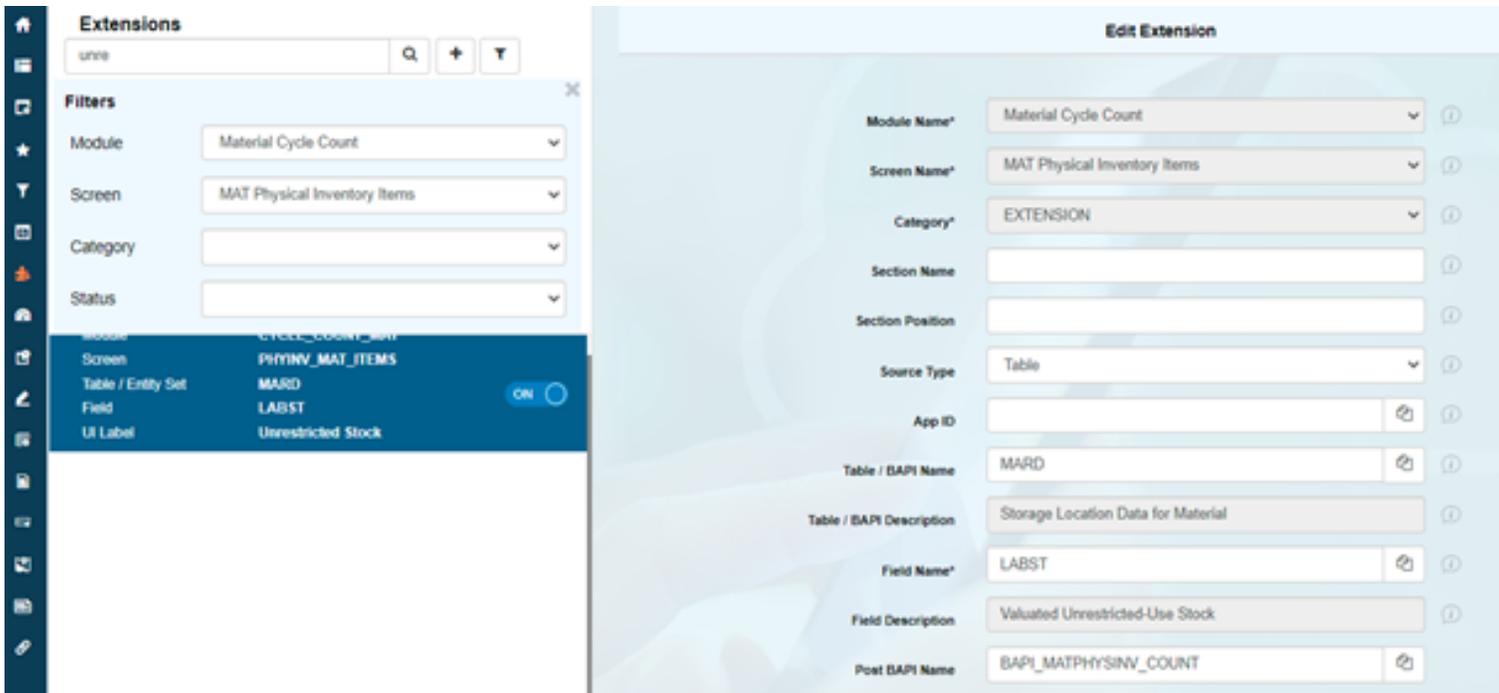
Table 6-6 Unrestricted Stock Configuration

Field	Description
Module Name	Material Cycle Count
Screen Name	MAT Physical Inventory Items
Category	EXTENSION
Source Type	Table
Table / BAPI Name	MARD
Table / BAPI Description	Storage Location Data for Material
Field Name	LABST
Field Description	Valuated Unrestricted-Use Stock
Post BAPI Name	BAPI_MATPHYSINV_COUNT
UI Label	Unrestricted Stock
Field Type	LF -Label Field
UI Position	12
Active	ON
Overview	ON
Detail	ON
Mandatory	OFF
Authorization Relevant	OFF
Parent Table	/INVMIM/PHYSINV_ITEMS_LIST_S

Field	Description
Parent Key	MATNR, WERKS, LGORT
Validation Required	OFF

5. Click **Save**.

Figure 6-3 Configure Unrestricted Stock



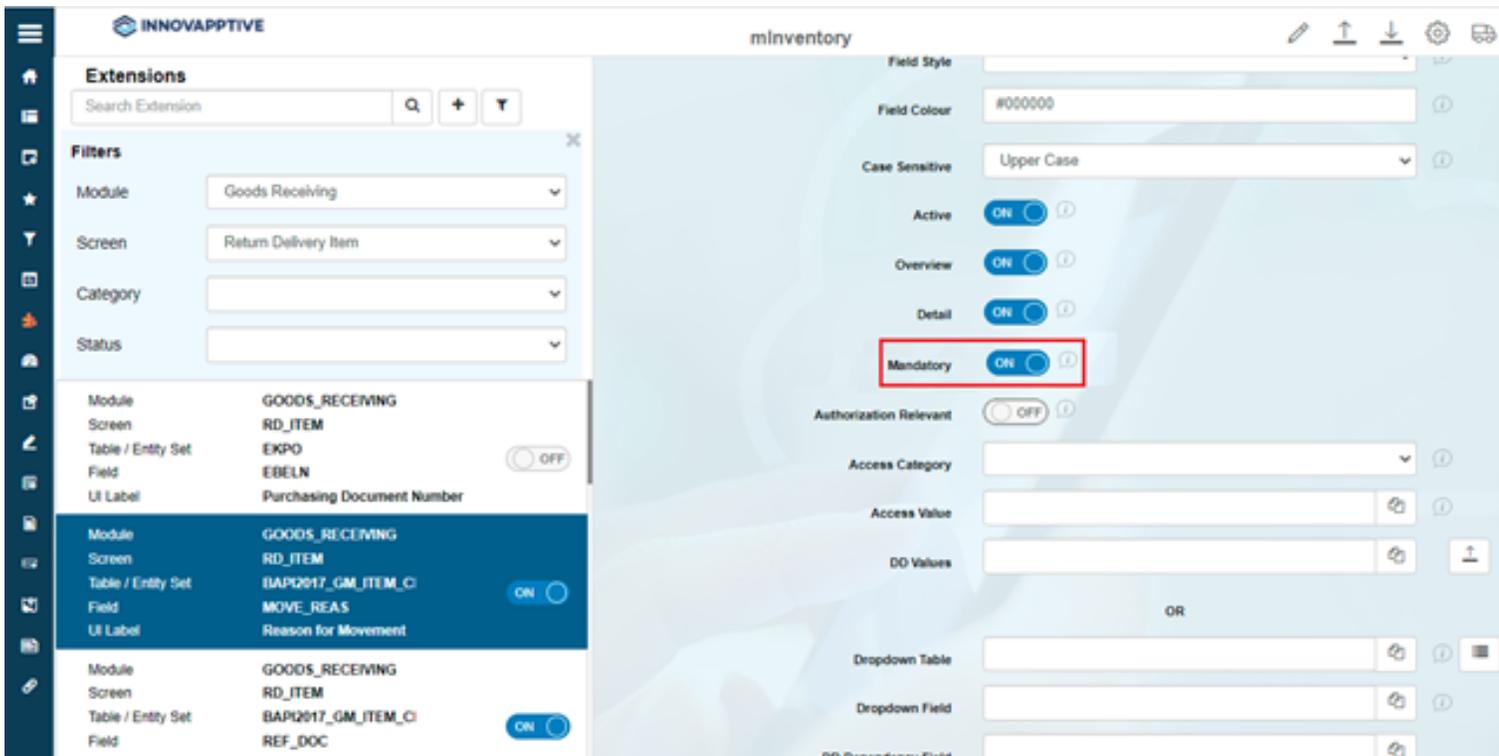
6.2. Configure Reason for Movement Mandatory

Configure to get an alert while posting a purchasing order document without mentioning the reason for movement in GR return delivery in offline mode.

To configure the reason for movement:

1. Click **Extensions** on the left panel.
2. Search the label name Reason for Movement in the **Search** bar.
3. Select the extension with the label name **Reason for Movement** on the left side.
4. In the **Edit Extension** section, turn **ON** the **Mandatory** field.
5. Click **Save**.

Figure 6-4 Configure Reason For Movement



6.3. Configure Reason for Movement When in Offline Mode

Configure to select a reason for movement in goods issue in offline mode.

To configure the reason for movement field when in offline mode:

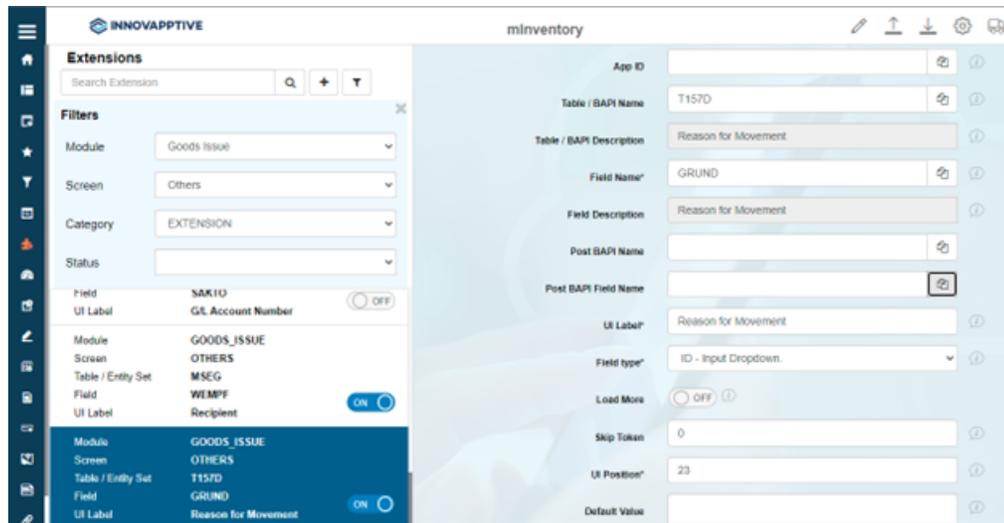
1. Click **Extensions** on the left panel.
2. Search the label name Reason for Movement in the **Search** bar.
3. Select the extension with the label name **Reason for Movement** on the left side.
4. In the **Edit Extension** section, update the following information:

Field	Description
Module Name	Goods Issue
Screen Name	Others
Category	Extension
Table/BAPI Name	T157D
Table/BAPI Description	Reason for Movement
Field Name	GRUND
Field Description	Reason for Movement
UI Label	Reason for Movement
Field Type	ID – Input Dropdown
UI Position	23
Active	ON
Overview	ON
Detail	ON
Dropdown Table	T157D

Field	Description
Dropdown Field	GRUND
DD Dependency Field	BWART

5. Click **Save**.

Figure 6-5 Configure Reason for Movement Offline



6.4. Configure GR Date and Unrestricted Quantity Extensions in Blind Count

This configuration allows you to view the Last Goods Received Date and Unrestricted Quantity of the material, which populates automatically while doing the Blind Count.

To configure the Last Goods Received Date field:

1. Click **Extensions** on the left panel.
2. Search the label name Last GR Date in the **Search** bar.
3. Select the extension with the label name **Last GR Date** on the left side.
4. In the **Edit Extension** section, update the following information:

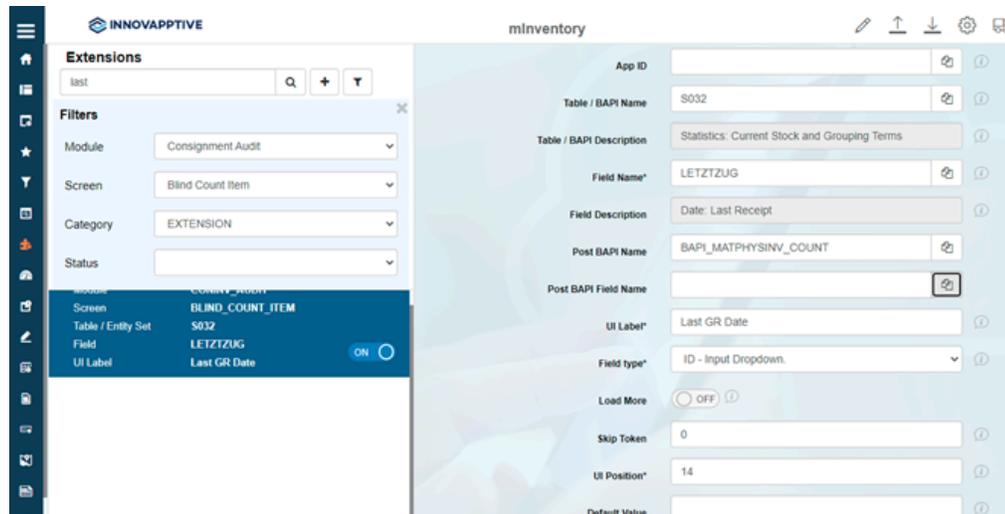
Field	Description
Module Name	Consignment Audit
Screen Name	Blind Count Item

Field	Description
Category	Extension
Table/BAPI Name	S032
Table/BAPI Description	Statistics: Current Stock and Grouping Terms
Field Name	LETZTZUG
Field Description	Date: Last Receipt
Post BAPI Name	BAPI_MATPHYSINV_COUNT
UI Label	Last GR Date
Field Type	ID – Input Dropdown
UI Position	14
Active	ON
Overview	ON
Detail	ON
Mandatory	ON
Dropdown Table	S032

Field	Description
Dropdown Field	LETZTZUG
DD Dependency Field	MATNR.WERKS.LGORT

5. Click **Save**.

Figure 6-6 Configure Last GR Date



To configure the Unrestricted Stock field:

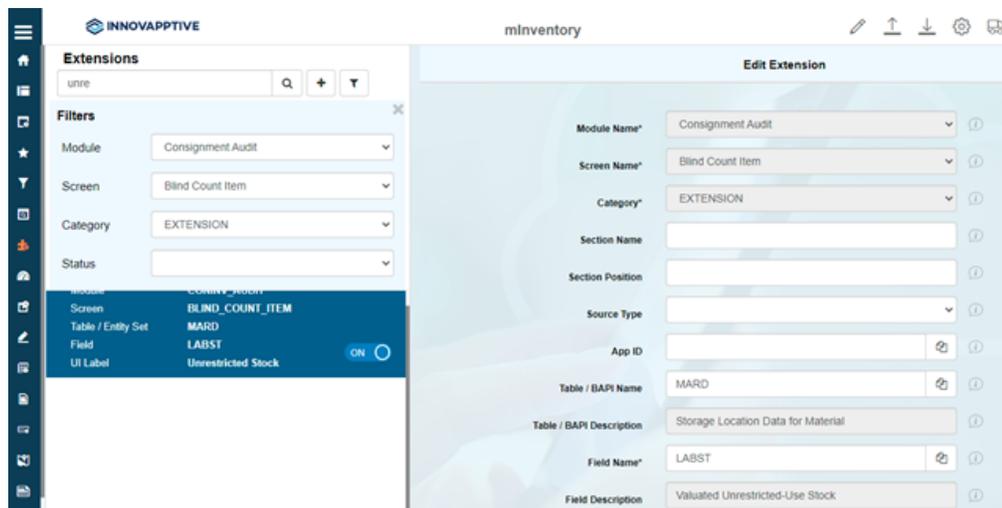
1. Click **Extensions** on the left panel.
2. Search the label name Unrestricted Stock in the **Search** bar.
3. Select the extension with the label name **Unrestricted Stock** on the left side.
4. In the **Edit Extension** section, update the following information:

Field	Description
Module Name	Consignment Audit
Screen Name	Blind Count Item
Category	Extension
Table/BAPI Name	MARD
Table/BAPI Description	Storage Location Data for Material
Field Name	LABST

Field	Description
Field Description	Valuated Unrestricted-Use Stock
Post BAPI Name	BAPI_MATPHYSINV_COUNT
UI Label	Unrestricted Stock
Field Type	LF – Label Field
UI Position	21
Active	ON
Overview	ON
Detail	ON
Mandatory	ON
Parent Key	MATNR.WERKS.LGORT

5. Click **Save**.

Figure 6–7 Configure Unrestricted Stock



6.5. Configure Work Order, Goods Recipient, Bin Location, and Text Extensions for Purchase Order

This configuration allows you to view the Work Order, Goods Recipient, and Storage Bin location details when the Purchase Order is for a work order.

To configure the Order Number field:

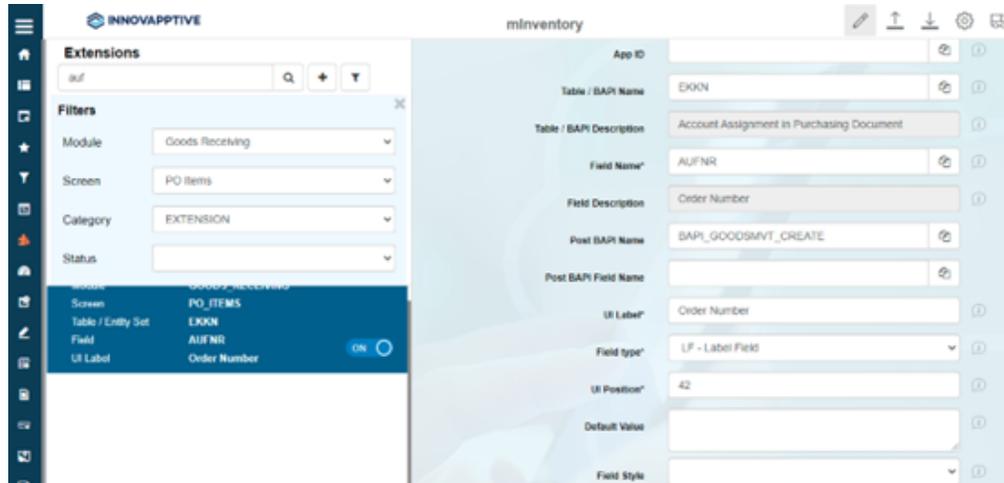
1. Click **Extensions** on the left panel.
2. Search the label name Order Number in the **Search** bar.
3. Select the extension with the label name **Order Number** on the left side.
4. In the **Edit Extension** section, update the following information:

Field	Description
Module Name	Goods Receiving
Screen Name	PO Items
Category	Extension
Table/BAPI Name	EKKN
Table/BAPI Description	Account Assignment in Purchasing Document
Field Name	AUFNR
Field Description	Order Number
Post BAPI Name	BAPI_GOODSMVT_CREATE
UI Label	Order Number
Field Type	LF – Label Field
UI Position	42
Active	ON
Overview	ON
Detail	ON

Field	Description
Mandatory	ON
Parent Table	/INVMIM/PO_ITEMS_GR_S

5. Click **Save**.

Figure 6-8 Configure Work Order Number



To configure the Goods Recipient field:

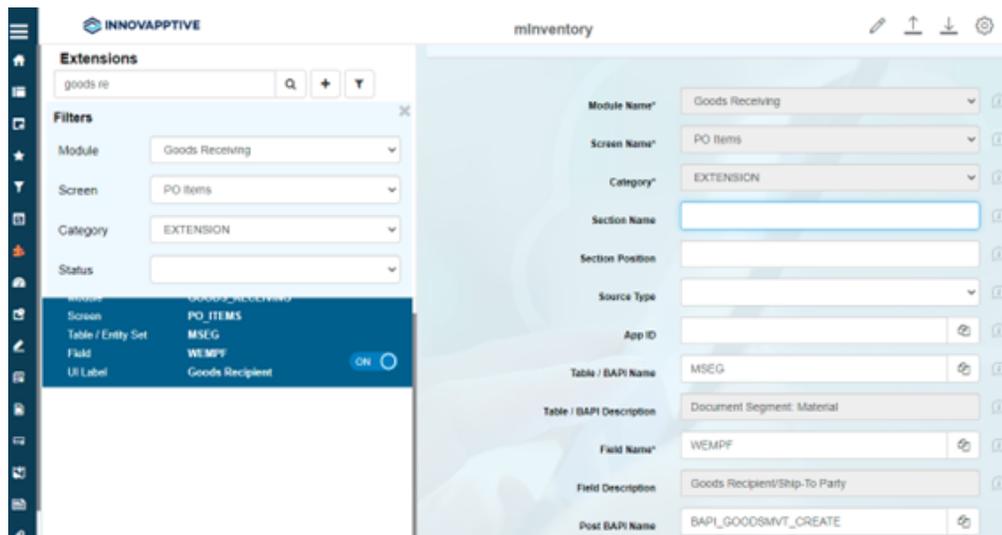
1. Click **Extensions** on the left panel.
2. Search the label name Goods Recipient in the **Search** bar.
3. Select the extension with the label name **Goods Recipient** on the left side.
4. In the **Edit Extension** section, update the following information:

Field	Description
Module Name	Goods Receiving
Screen Name	PO Items
Category	Extension
Table/BAPI Name	MSEG
Table/BAPI Description	Document Segment Material
Field Name	WEMPF
Field Description	Goods Recipient/Shot-To-Party

Field	Description
Post BAPI Name	BAPI_GOODSMVT_CREATE
UI Label	Goods Recipient
Field Type	TF – Text Field
UI Position	43
Active	ON
Overview	ON
Detail	ON
Mandatory	ON
Parent Table	/INVMIM/PO_ITEMS_GR_S

5. Click **Save**.

Figure 6–9 Configure Goods Recipient



To configure the Storage Bin location field:

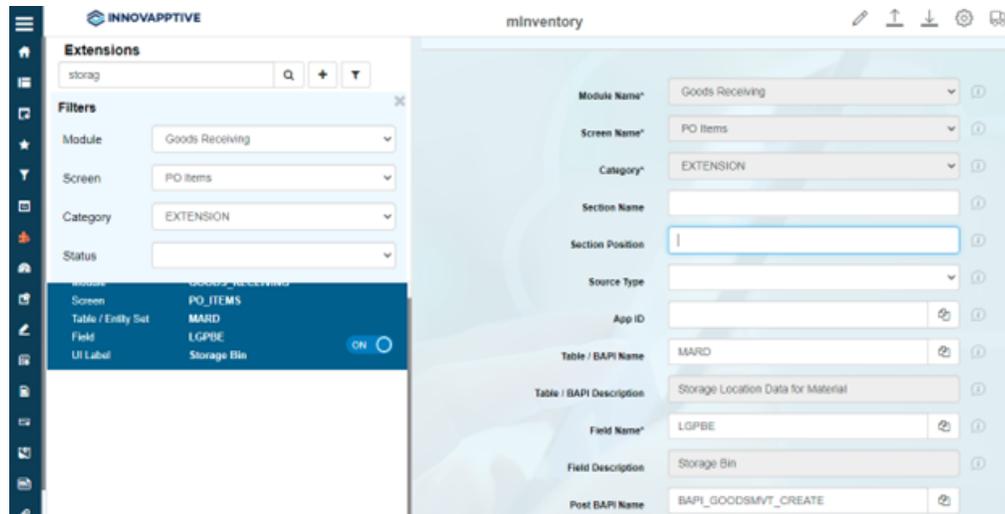
1. Click **Extensions** on the left panel.
2. Search the label name Storage Bin in the **Search** bar.
3. Select the extension with the label name **Storage Bin** on the left side.
4. In the **Edit Extension** section, update the following information:

Field	Description
Module Name	Goods Receiving
Screen Name	PO Items
Category	Extension
Table/BAPI Name	MARD
Table/BAPI Description	Storage Location Data for Material
Field Name	LGPBE
Field Description	Storage Bin
Post BAPI Name	BAPI_GOODSMVT_CREATE
UI Label	Storage Bin
Field Type	LF – Label Field
UI Position	7
Active	ON
Overview	ON
Detail	ON
Mandatory	ON

Field	Description
Parent Table	/INVMIM/PO_ITEMS_GR_S
Parent Key	MATNR.WERKS.LGORT

5. Click **Save**.

Figure 6-10 Configure Storage Bin



To configure the Text field:

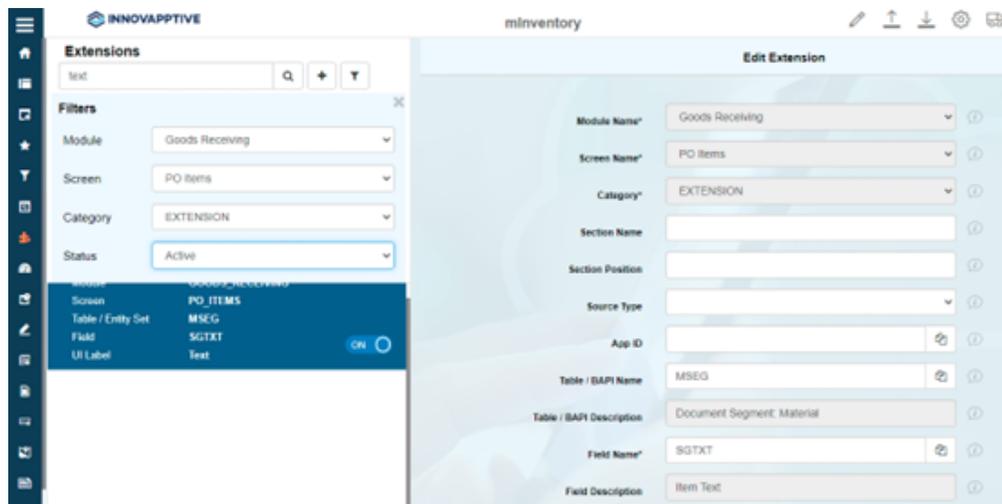
1. Click **Extensions** on the left panel.
2. Search the label name Text in the **Search** bar.
3. Select the extension with the label name **Text** on the left side.
4. In the **Edit Extension** section, update the following information:

Field	Description
Module Name	Goods Receiving
Screen Name	PO Items
Category	Extension
Table/BAPI Name	MSEG
Table/BAPI Description	Document Segment: Material
Field Name	SGTXT

Field	Description
Field Description	Item Text
Post BAPI Name	BAPI_GOODSMVT_CREATE
UI Label	Text
Field Type	TF – Text Field
UI Position	44
Active	ON
Overview	ON
Detail	ON
Mandatory	ON
Parent Table	/INVMIM/PO_ITEMS_GR_S

5. Click **Save**.

Figure 6-11 Configure Text



6.6. Configure Extensions in Purchase Requisition Creation

This configuration allows you to view the Material Number, Quantity, Plant, Account Assignment, Price, and Currency details while creating Purchase Requisition.

To configure the Material field:

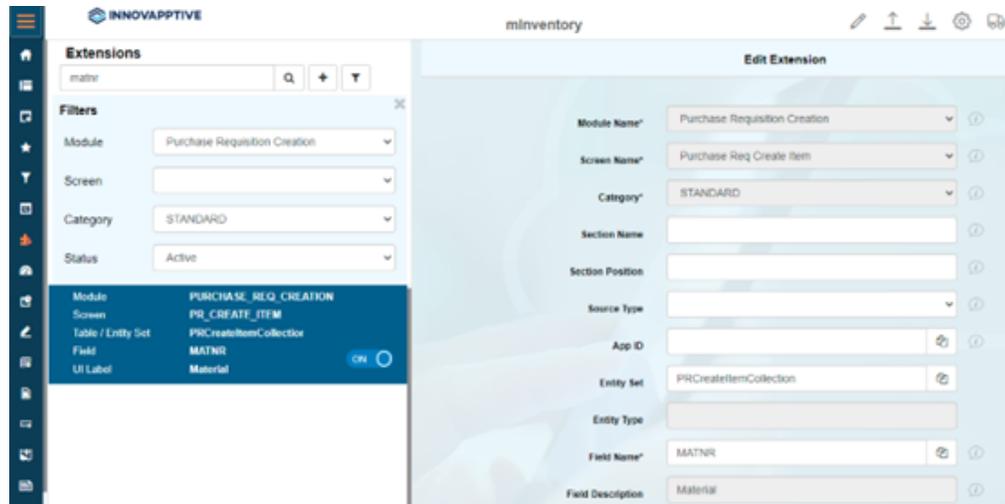
1. Click **Extensions** on the left panel.
2. Search the label name Material in the **Search** bar.
3. Select the extension with the label name **Material** on the left side.
4. In the **Edit Extension** section, update the following information:

Field	Description
Module Name	Purchase Requisition Creation
Screen Name	Purchase Req Create Item
Category	Standard
Entity Set	PRCreateItemCollection
Field Name	MATNR
Field Description	Material
Parameter Type	Import
Post BAPI Name	BAPI_GOODSMVT_CREATE
Post BAPI Field Name	FIXED_VEND
UI Label	Material
Field Type	ID – Input Dropdown
UI Position	1
Active	ON
Overview	ON

Field	Description
Detail	ON
Mandatory	ON

5. Click **Save**.

Figure 6-12 Configure Material Number



To configure the Quantity field:

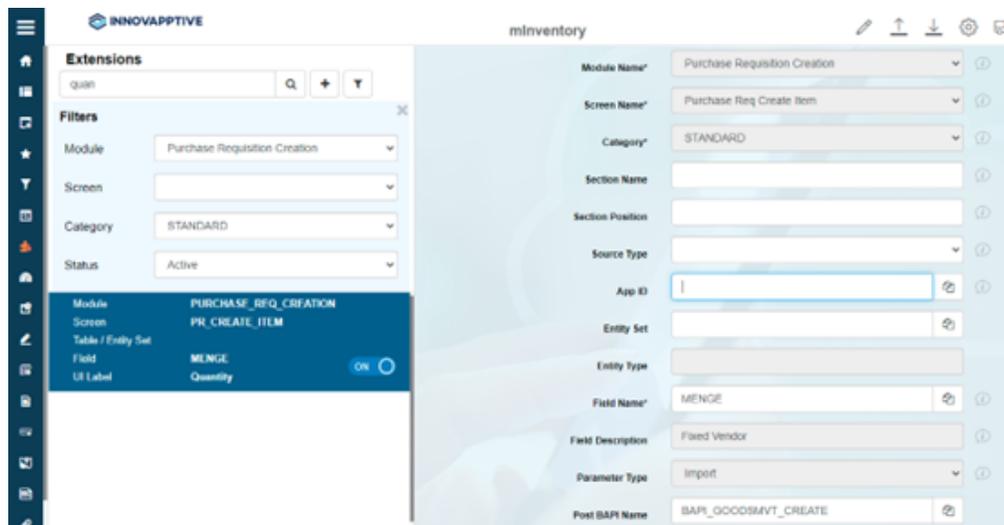
1. Click **Extensions** on the left panel.
2. Search the label name Quantity in the **Search** bar.
3. Select the extension with the label name **Quantity** on the left side.
4. In the **Edit Extension** section, update the following information:

Field	Description
Module Name	Purchase Requisition Creation
Screen Name	Purchase Req Create Item
Category	Standard
Field Name	MENGE
Field Description	Fixed Vendor
Parameter Type	Import
Post BAPI Name	BAPI_GOODSMVT_CREATE

Field	Description
Post BAPI Field Name	FIXED_VEND
UI Label	Quantity
Field Type	NF – Numeric Field
UI Position	2
Active	ON
Overview	ON
Detail	ON
Mandatory	OFF

5. Click **Save**.

Figure 6-13 Configure Quantity



To configure the Plant field:

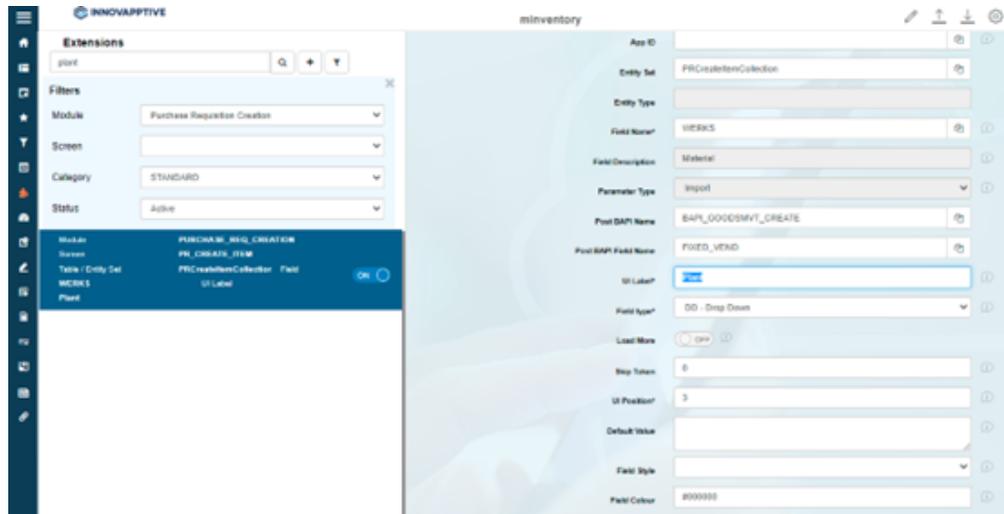
1. Click **Extensions** on the left panel.
2. Search the label name Plant in the **Search** bar.
3. Select the extension with the label name **Plant** on the left side.
4. In the **Edit Extension** section, update the following information:

Field	Description
Module Name	Purchase Requisition Creation
Screen Name	Purchase Req Create Item
Category	Standard
Entity Set	PRCreateItemCollection
Field Name	WERKS
Field Description	Material
Parameter Type	Import
Post BAPI Name	BAPI_GOODSMVT_CREATE
Post BAPI Field Name	FIXED_VEND
UI Label	Plant
Field Type	DD – Drop Down
UI Position	3
Active	ON
Overview	ON

Field	Description
Detail	ON
Mandatory	OFF

5. Click **Save**.

Figure 6-14 Configure Plant



To configure the Account Assignment field:

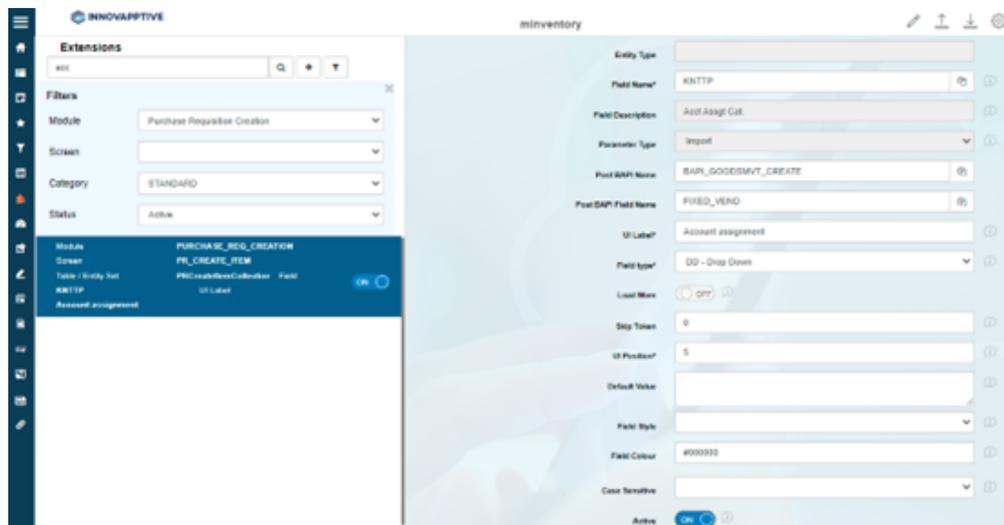
1. Click **Extensions** on the left panel.
2. Search the label name Account assignment in the **Search** bar.
3. Select the extension with the label name **Account assignment** on the left side.
4. In the **Edit Extension** section, update the following information:

Field	Description
Module Name	Purchase Requisition Creation
Screen Name	Purchase Req Create Item
Category	Standard
Entity Set	PRCreateItemCollection
Field Name	KNTTP
Field Description	Acct Assgt Cat

Field	Description
Parameter Type	Import
Post BAPI Name	BAPI_GOODSMVT_CREATE
Post BAPI Field Name	FIXED_VEND
UI Label	Account Assignment
Field Type	DD – Drop Down
UI Position	5
Active	ON
Overview	ON
Detail	ON
Mandatory	OFF

5. Click **Save**.

Figure 6-15 Configure Account Assignment



To configure the Price field:

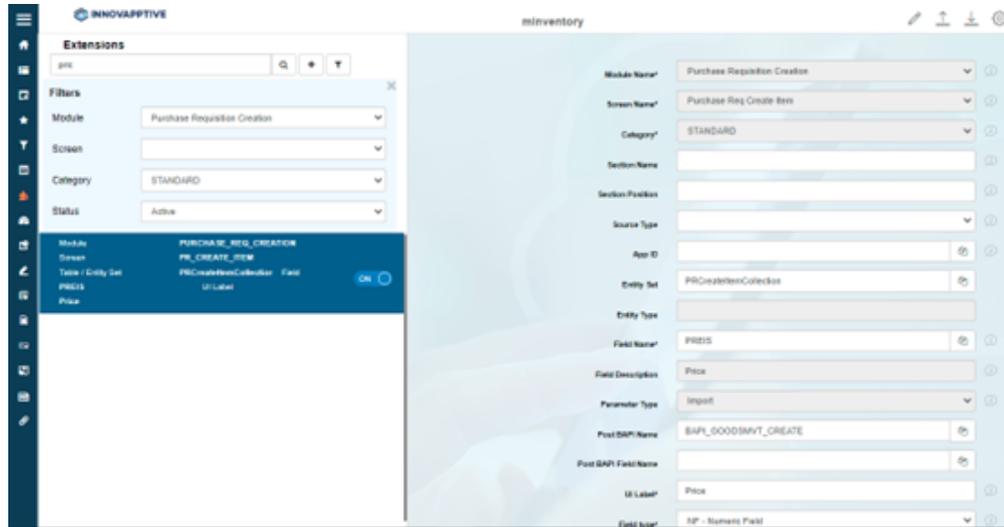
1. Click **Extensions** on the left panel.
2. Search the label name Price in the **Search** bar.
3. Select the extension with the label name **Price** on the left side.
4. In the **Edit Extension** section, update the following information:

Field	Description
Module Name	Purchase Requisition Creation
Screen Name	Purchase Req Create Item
Category	Standard
Entity Set	PRCreateItemCollection
Field Name	PREIS
Field Description	Price
Parameter Type	Import
Post BAPI Name	BAPI_GOODSMVT_CREATE
UI Label	Price
Field Type	NF – Numeric Field
UI Position	6
Active	ON
Overview	ON

Field	Description
Detail	ON
Mandatory	ON

5. Click **Save**.

Figure 6-16 Configure Price



To configure the Currency field:

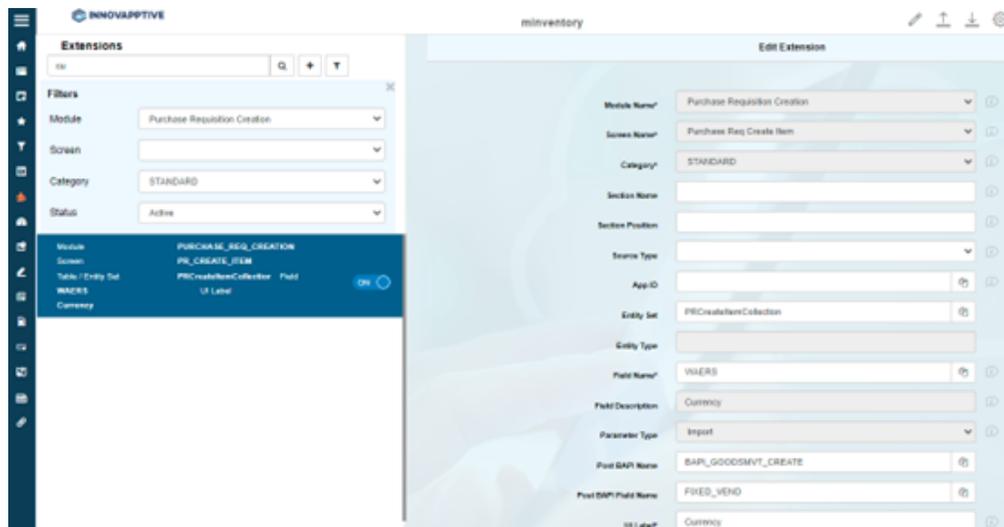
1. Click **Extensions** on the left panel.
2. Search the label name Currency in the **Search** bar.
3. Select the extension with the label name **Currency** on the left side.
4. In the **Edit Extension** section, update the following information:

Field	Description
Module Name	Purchase Requisition Creation
Screen Name	Purchase Req Create Item
Category	Standard
Entity Set	PRCreateItemCollection
Field Name	WAERS
Field Description	Currency

Field	Description
Parameter Type	Import
Post BAPI Name	BAPI_GOODSMVT_CREATE
Post BAPI Field Name	FIXED_VEND
UI Label	Currency
Field Type	DD – Drop Down
UI Position	8
Active	ON
Overview	ON
Detail	ON
Mandatory	OFF

5. Click **Save**.

Figure 6-17 Configure Currency



7. Enable Scan functionality

You can convert search fields to scan fields. When you do this, you can capture data by scanning and post your transactions without the need to enter or update values manually. You can enable the following types of functionality using RACE™ for your mobile applications.

You can enable the following types of functionality using RACE™ for mInventory.

- [Enable Combo Bind \(on page 115\)](#)
- [Enable Combo Scan \(on page 116\)](#)
- [Enable Continuous Scan \(on page 125\)](#)
- [Enable Fast Scan to post transactions by scanning barcodes \(on page 127\)](#)
- [Scan multiple barcodes and filter records at one go \(on page 130\)](#)

7.1. Enable Combo Bind

Combo bind helps you scan the barcode that has multiple values and capture the relevant value.

For example, if the barcode has values for purchase order, warehouse number, and so on, you can configure a field to capture only the purchase order value by using the combo bind feature.

To use this feature, do the following configurations:

1. Click **Searches** on the left panel.
2. Enter the name of the module, screen, or search field.

You can also click the **Filter**  icon to filter and search the fields.

3. Click on the search field you want to configure.
4. Select Scan Field in the **UI Field Type** property.
5. In the **Default Value** field, enter the following string:

```
{ "SEPERATOR": "~",  
  "COMBOSCAN": [  
    { "FIELDNAME": "EBELN",  
      "FIELDLENGTH": "20",  
      "SEARCHTYPE": "H",  
      "OPERATIONTYPE": "U",  
      "MANDATORY": "X",
```

```
"CATEGORY": "EXTENSION",  
"OPTIONAL": "",  
{ "FIELDNAME": "LIFNR",  
  "FIELDLENGTH": "10",  
  "SEARCHTYPE": "H",  
  "OPERATIONTYPE": "U",  
  "MANDATORY": "X",  
  "CATEGORY": "EXTENSION" },  
{ "FIELDNAME": "MATNR",  
  "FIELDLENGTH": "10",  
  "SEARCHTYPE": "I",  
  "OPERATIONTYPE": "U",  
  "MANDATORY": "",  
  "CATEGORY": "EXTENSION" }  
}]}
```

6. Click **Save**.

7.2. Enable Combo Scan

Combo Scan helps you scan the barcode, capture data, and navigate automatically to the transaction screen related to the value.

For example, if the barcode has **Purchase Order**, the field configured to capture the purchase order captures the value and opens the Purchase Order too.

To use this feature, do the following configurations:

1. Click **Searches** on the left panel.
2. Click on the search field (SCANFIELD) you want to configure.
3. In the **Default Value** field, enter the JSON string.



Note:

You can modify the parameters in the string. See [Combo Scan Parameters \(on page 124\)](#).

Following strings help you update the serial number in the serialization screen for the **Material** and **Batch** combination and increase the value in the **Quantity** field.

| 7 - Enable Scan functionality

- To configure combo scan for Pack / Unpack sub module of Extended Warehouse Management use the following code snippet

```
{
  "SEPERATOR": "~",
  "COMBOSCAN": [
    [
      {
        "FIELDNAME": "REFDOCNO_ERP_I",
        "FIELDLENGTH": "10",
        "SEARCHTYPE": "H",
        "OPERATIONTYPE": "S",
        "MANDATORY": "X",
        "CATEGORY": "STANDARD",
        "OPTIONAL": ""
      },
      {
        "FIELDNAME": "LGNUM",
        "FIELDLENGTH": "10",
        "SEARCHTYPE": "H",
        "OPERATIONTYPE": "S",
        "MANDATORY": "",
        "CATEGORY": "STANDARD",
        "OPTIONAL": ""
      },
      {
        "FIELDNAME": "POSNR",
        "FIELDLENGTH": "10",
        "SEARCHTYPE": "I",
        "OPERATIONTYPE": "F",
        "MANDATORY": "",
        "CATEGORY": "STANDARD",
        "OPTIONAL": ""
      },
      {
        "FIELDNAME": "CONFQTY",
        "FIELDLENGTH": "10",
        "SEARCHTYPE": "I",
        "OPERATIONTYPE": "A",
        "MANDATORY": "",
        "CATEGORY": "STANDARD",
        "OPTIONAL": ""
      }
    ]
  ]
}
```

| 7 - Enable Scan functionality

```
}]  
]  
}
```

- To configure combo scan for Picking Confirmation sub module of Extended Warehouse Management use the following code snippet

```
{  
  "SEPERATOR": ".",  
  "COMBOSCAN": [  
    [{  
      "FIELDNAME": "WHO",  
      "FIELDLENGTH": "10",  
      "SEARCHTYPE": "H",  
      "OPERATIONTYPE": "S",  
      "MANDATORY": "X",  
      "CATEGORY": "STANDARD",  
      "OPTIONAL": ""  
    }, {  
      "FIELDNAME": "LGNUM",  
      "FIELDLENGTH": "10",  
      "SEARCHTYPE": "H",  
      "OPERATIONTYPE": "S",  
      "MANDATORY": "X",  
      "CATEGORY": "STANDARD",  
      "OPTIONAL": ""  
    }, {  
      "FIELDNAME": "TANUM",  
      "FIELDLENGTH": "10",  
      "SEARCHTYPE": "I",  
      "OPERATIONTYPE": "F",  
      "MANDATORY": "X",  
      "CATEGORY": "STANDARD",  
      "OPTIONAL": ""  
    }, {  
      "FIELDNAME": "NISTM",  
      "FIELDLENGTH": "10",  
      "SEARCHTYPE": "I",  
      "OPERATIONTYPE": "A",
```

| 7 - Enable Scan functionality

```
"MANDATORY": "X",  
  
"CATEGORY": "STANDARD"  
  
}]  
  
]  
  
}
```

- To configure combo scan for Goods Issue of outbound deliveries of Extended Warehouse Management use the following code snippet

```
{  
  
"SEPERATOR": "~",  
  
"COMBOSCAN": [  
  
  [{  
  
    "FIELDNAME": "REFDOCNO_ERP_H",  
  
    "FIELDLENGTH": "10",  
  
    "SEARCHTYPE": "H",  
  
    "OPERATIONTYPE": "S",  
  
    "MANDATORY": "X",  
  
    "CATEGORY": "STANDARD",  
  
    "OPTIONAL": ""  
  
  }, {  
  
    "FIELDNAME": "LGNUM",  
  
    "FIELDLENGTH": "10",  
  
    "SEARCHTYPE": "H",  
  
    "OPERATIONTYPE": "S",  
  
    "MANDATORY": "",  
  
    "CATEGORY": "STANDARD",  
  
    "OPTIONAL": ""  
  
  }, {  
  
    "FIELDNAME": "POSNR",  
  
    "FIELDLENGTH": "10",  
  
    "SEARCHTYPE": "I",  
  
    "OPERATIONTYPE": "F",  
  
    "MANDATORY": "",  
  
    "CATEGORY": "STANDARD",  
  
    "OPTIONAL": ""  
  
  }, {  
  
    "FIELDNAME": "MATNR",
```

| 7 - Enable Scan functionality

```
"FIELDLENGTH": "10",
"SEARCHTYPE": "I",
"OPERATIONTYPE": "F",
"MANDATORY": "",
"CATEGORY": "STANDARD",
"OPTIONAL": ""
}, {
"FIELDNAME": "CHARG",
"FIELDLENGTH": "10",
"SEARCHTYPE": "I",
"OPERATIONTYPE": "U",
"MANDATORY": "",
"CATEGORY": "STANDARD"
}, {
"FIELDNAME": "LFIMG",
"FIELDLENGTH": "10",
"SEARCHTYPE": "I",
"OPERATIONTYPE": "A",
"MANDATORY": "",
"CATEGORY": "STANDARD"
}]
]
}
```

- To configure combo scan for Goods Issue Reversal of outbound deliveries of Extended Warehouse Management use the following code snippet

```
{
"SEPERATOR": "~",
"COMBOSCAN": [
[ {
"FIELDNAME": "REFDOCNO_ERP_H",
"FIELDLENGTH": "10",
"SEARCHTYPE": "H",
"OPERATIONTYPE": "S",
"MANDATORY": "X",
"CATEGORY": "STANDARD",
```

| 7 - Enable Scan functionality

```
"OPTIONAL": ""
}, {
  "FIELDNAME": "LGNUM",
  "FIELDLENGTH": "10",
  "SEARCHTYPE": "H",
  "OPERATIONTYPE": "S",
  "MANDATORY": "",
  "CATEGORY": "STANDARD",
  "OPTIONAL": ""
}, {
  "FIELDNAME": "POSNR",
  "FIELDLENGTH": "10",
  "SEARCHTYPE": "I",
  "OPERATIONTYPE": "F",
  "MANDATORY": "",
  "CATEGORY": "STANDARD",
  "OPTIONAL": ""
}, {
  "FIELDNAME": "MATNR",
  "FIELDLENGTH": "10",
  "SEARCHTYPE": "I",
  "OPERATIONTYPE": "F",
  "MANDATORY": "",
  "CATEGORY": "STANDARD",
  "OPTIONAL": ""
}, {
  "FIELDNAME": "CHARG",
  "FIELDLENGTH": "10",
  "SEARCHTYPE": "I",
  "OPERATIONTYPE": "U",
  "MANDATORY": "",
  "CATEGORY": "STANDARD"
}, {
  "FIELDNAME": "LFIMG",
  "FIELDLENGTH": "10",
  "SEARCHTYPE": "I",
```

| 7 - Enable Scan functionality

```
"OPERATIONTYPE": "A",  
"MANDATORY": "",  
"CATEGORY": "STANDARD"  
}]  
]  
  
}
```

- To configure combo scan for Cycle Counting of Extended Warehouse Management use the following code snippet

```
{  
"SEPERATOR": ".",  
  
"COMBOSCAN": [  
  [{  
    "FIELDNAME": "DOCNUMBER",  
    "FIELDLENGTH": "10",  
    "SEARCHTYPE": "H",  
    "OPERATIONTYPE": "S",  
    "MANDATORY": "X",  
    "CATEGORY": "STANDARD",  
    "OPTIONAL": ""  
  }, {  
    "FIELDNAME": "LGNUM",  
    "FIELDLENGTH": "15",  
    "SEARCHTYPE": "H",  
    "OPERATIONTYPE": "F",  
    "MANDATORY": "",  
    "CATEGORY": "STANDARD",  
    "OPTIONAL": ""  
  }, {  
    "FIELDNAME": "MATNR",  
    "FIELDLENGTH": "10",  
    "SEARCHTYPE": "I",  
    "OPERATIONTYPE": "F",  
    "MANDATORY": "",  
    "CATEGORY": "STANDARD",  
    "OPTIONAL": ""  
  }  
]
```

| 7 - Enable Scan functionality

```
}, {  
  
  "FIELDNAME": "QUANTITY",  
  
  "FIELDLENGTH": "10",  
  
  "SEARCHTYPE": "I",  
  
  "OPERATIONTYPE": "A",  
  
  "MANDATORY": "",  
  
  "CATEGORY": "STANDARD"  
  
}]  
  
]  
  
}
```

- To update the **Quantity** field in GR—Others, GI—Others, Transfer Posting—Others and Consignment Audit—Blind Inventory Audit modules.

```
{ "SEPERATOR": "~",  
  
  "COMBOSCAN": [  
  
    { "FIELDNAME": "MATNR", "FIELDLENGTH": "20", "SEARCHTYPE": "I", "OPERATIONTYPE": "UF",  
  
      "MANDATORY": "X", "CATEGORY": "STANDARD", "OPTIONAL": "" },  
  
    { "FIELDNAME": "CHARG", "FIELDLENGTH": "10", "SEARCHTYPE": "I", "OPERATIONTYPE": "UF",  
  
      "MANDATORY": "", "CATEGORY": "STANDARD" },  
  
    { "FIELDNAME": "NPLNR", "FIELDLENGTH": "5", "SEARCHTYPE": "I", "OPERATIONTYPE": "U",  
  
      "MANDATORY": "", "CATEGORY": "EXTENSION" },  
  
    { "FIELDNAME": "SERNOS", "FIELDLENGTH": "5", "SEARCHTYPE": "I", "OPERATIONTYPE": "B",  
  
      "MANDATORY": "", "CATEGORY": "STANDARD" },  
  
    { "FIELDNAME": "OPENQTY", "FIELDLENGTH": "10", "SEARCHTYPE": "I", "OPERATIONTYPE": "B",  
  
      "MANDATORY": "", "CATEGORY": "STANDARD", "DFIELDNAME": "SERIALCOUNT", "SOURCETYPE": "S" }  
  
  ] ] }
```

- To do Combo Scan for **Material (MATNR)**, **Batch (CHARG)** and **Serial Number** combination:

```
{ "SEPERATOR": "~",  
  
  "COMBOSCAN": [  
  
    { "FIELDNAME": "MATNR", "FIELDLENGTH": "20", "SEARCHTYPE": "I", "OPERATIONTYPE": "UF",  
  
      "MANDATORY": "X", "CATEGORY": "STANDARD" },  
  
    { "FIELDNAME": "CHARG", "FIELDLENGTH": "10", "SEARCHTYPE": "I", "OPERATIONTYPE": "UF",  
  
      "MANDATORY": "", "CATEGORY": "STANDARD" },  
  
  ] ] }
```

```
{ "FIELDNAME": "SER NOS", "FIELDLENGTH": "5", "SEARCHTYPE": "I", "OPERATIONTYPE": "B",  
  "MANDATORY": "", "CATEGORY": "STANDARD" },  
  ] }
```

4. Click **Save**.

Combo Scan parameters

Following are the components of a Combo Scan string:

- **VISIBILITY:** Indicates the screen where the combo scan is applicable:
 - S - Search
 - I - Item screen



Note:

If this value is empty, Combo Scan is applicable for Search and Item screens. If you want multiple values, use the '|'. **Example:** VISIBILITY:"S|I"

- **COMBOSCAN:** Contains attributes like Fieldname, FieldLength, SearchType (Header or Item), OperationType, Mandatory, and Category.



Note:

Service must be Header level only when OperationType is 'S'.

- **OPERATIONTYPE:** OperationType attribute can have these values:

- S - Field value is sent to the server.
- F- Data received from the server is filtered.
- U - Data is updated with scanned value on the filtered data.



Note:

- If you scan at item level, the new Quantity is added to the existing Quantity value.
- If you scan data, the values are separated using comma.

- **MANDATORY:** Indicates that the field is mandatory for scanning. If these field values are not in the scanned barcode, it prompts that the barcode is not valid.
- **CATEGORY:** Indicates whether the field configured is Extension / Standard field.
- **Search Fields:** All the search fields are sent to service along with combo scan search type fields with operation type "S". If the app user enters any value in the dynamic search and the same field is available in the combo scan string, the combo string is considered as priority. If search fields have mandatory fields, the application prompts the user to enter mandatory fields.

7.3. Enable Continuous Scan

Continuous Scan helps you scan a barcode in predefined order and populate the fields without tapping on the field.

For example, if there are separate barcodes for **Purchasing Document Number**, **Plant Number** and **Material** fields, you can configure the fields to capture the value when you scan the barcode. When doing goods receipt, you can scan the barcodes depending on the sequence in which the fields appear on the screen and populate the values.

- If you configure only editable fields such as text fields or only scan fields on the screen, then each field is populated with the scanned (barcode) data as you scan the barcodes.
- If you configure a combination of scan and text fields on the screen, the data is populated only in the scan fields as you scan the barcodes.

To use this feature, do the following configurations:



Note:

This feature is applicable for **mInventory**.

| 7 - Enable Scan functionality

1. Click **Searches** on the left panel.
2. Click on the search field (SCANFIELD) you want to configure.
3. Select Scan Field in the **UI Field Type** property.
4. In the **Default Value** field, enter the following string:

```
{
  "SEPERATOR": "~",
  "COMBOSCAN": [
    [
      {
        "FIELDNAME": "MATNR",
        "FIELDLENGTH": "10",
        "SEARCHTYPE": "H",
        "OPERATIONTYPE": "S",
        "MANDATORY": "X",
        "CATEGORY": "STANDARD",
        "OPTIONAL": ""
      }, {
        "FIELDNAME": "WERKS",
        "FIELDLENGTH": "10",
        "SEARCHTYPE": "I",
        "OPERATIONTYPE": "F",
        "MANDATORY": "X",
        "CATEGORY": "STANDARD",
        "OPTIONAL": ""
      }, {
        "FIELDNAME": "LGORT",
        "FIELDLENGTH": "10",
        "SEARCHTYPE": "I",
        "OPERATIONTYPE": "F",
        "MANDATORY": "",
        "CATEGORY": "STANDARD",
        "OPTIONAL": ""
      }, {
        "FIELDNAME": "LGPBE",
        "FIELDLENGTH": "10",
        "SEARCHTYPE": "I",
        "OPERATIONTYPE": "B",
        "MANDATORY": "",
```

```
"CATEGORY": "STANDARD",  
"OPTIONAL": ""  
  }  
}  
}
```

5. Click **Save**.

7.4. Enable Fast Scan to post transactions by scanning barcodes

Fast Scan helps you scan the barcode, capture data, navigate to the transaction screen and post the transaction.

For example, if you have 50 Transfer Order items to confirm, you can post the transaction with a single trigger of your scanner. On the TO Confirmation search screen, scan the barcode from the Transfer Order Number and Warehouse Number field, the application confirms the Transfer Order items and navigates you to the search screen to scan the next barcode.

This feature is available for the following modules:

- TO Confirmation
- Goods Receiving - Purchase Order, Stock Transport Order, Outbound Delivery, Material document, Return Delivery
- Pick/Unpick
- Remote Logistics Management (RLM) - Pack01, Pack02, Pack03, Pack04 and Pack05

To use this feature, configure Screen Flow for the module as per your requirement in RACE Searches. Do the following configurations:

1. Click **Searches** on the left panel.
2. Click on the search field (SCREENFLOW) you want to configure.
3. In the **Default Value** field, enter the JSON string.

You can modify the parameters in the string. See Screen Flow String Parameters.

```
{  
  "SCREENFLOW": {  
    "SEARCHSCREEN": {  
      "AUTOSEARCH": true,  
      "OPTIONAL": ""  
    }  
  }  
}
```

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```
},
"LISTSCREEN": {
  "OPTIONAL": ""
},
"ITEMSCREEN": {
  "AUTOCONFIRM": true,
  "SHOWCONFIRMALERT": false,
  "SINGLERECORDSELECTION": true,
  "SINGLEFUZZYSELECTION": true,
  "SUCCESSFLOW": "ITEMSCREEN",
  "SUCCESSALERT": true,
  "ENABLEFIELDSCAN": true,
  "SCANFIELDNAME": "VBELN",
  "OPTIONAL": ""
},
"DETAILSCREEN": {
  "OPTIONAL": ""
}
}
```

4. Click **Save**.

Screen Flow String Parameters

Following are the components of a Screen Flow string:

- **AUTOSEARCH** : This works when the user scans data for fields in the search screen using continuous scan. If this parameter is set to 'true' and the user scans the last field, the application performs search automatically.



Note:

If the validation fails, the application does not proceed with search operation.

- **AUTOCONFIRM**: When a user scans data using combo scan, the application navigates to the item screen and selects one or more records. If this parameter is set to 'true', the application posts the transaction(s). When Combo Scan is disabled and user scans the barcode:
 - If the search has only one record, the application selects the record only when the **SINGLERECORDSELECTION** parameter is set to 'true'.
 - If fuzzy search on item screen has only one record, the application selects the record only when the **SINGLEFUZZYSELECTION** parameter is set to 'true'.
- **SHOWCONFIRMALERT**: After the user posts a transaction, the confirmation pop up is shown only if this parameter is set to 'true'.
- **SUCCESSFLOW**: This parameter can have either of the following values:
 - **ITEMSCREEN**: Application remains on the same screen when the transaction is posted.
 - **LISTSCREEN**: Application navigates to list screen after the transaction is posted. If the list screen has no records further, application navigates to the search screen so that user scan the next barcode.
 - **SUCCESSSCREEN**: Application navigates to success screen after the transaction is posted. When the device is not connected to the network, application navigates to the list screen.
 - **SEARCHSCREEN**: Application navigates to search screen after the transaction is posted.



Note:

Search criteria is cleared. This allows user to scan the barcode of next transaction.

- **SUCCESSALERT:** Application shows transaction is successful message only if the SUCCESSFLOW parameter is set to other than SUCCESSSCREEN.



Note:

If the SUCCESSALERT is set to 'true', an alert dialog is displayed. Else, a toast message is displayed.

- **ENABLEFIELDSCAN:** This parameter enables item level field scan based on field name.
- **SCANFIELDNAME:** This parameter includes the name of the field which the user scans. This is applicable only if *ENABLEFIELDSCAN* is set to true.

7.5. Scan multiple barcodes and filter records at one go

Filter records by scanning multiple barcodes. This simplifies your search for records with a single trigger on the scanner.

For example, you would want to filter purchase orders related to the Plant *1000* and *3000*. Scan the barcodes in the Plant field and tap Search. List of purchase orders for the Plant are displayed.

This feature is not available in the following modules:

- Create Shipment
- SES
- EWM
- Bin Creation
- Label Printing

Do the following configurations:

1. Click **Searches** on the left panel.
2. Click on the search field you want to configure.
3. In the **UI Field Type**, select **Multi Scan Field (MSF)**.
4. Click **Save**.

7.6. Skip TO Confirmation screen and accelerate TO Confirmation process

When you have huge number of transfer orders to confirm, you can configure to skip the TO Confirmation success screen and automatically navigate to the search screen and scan the barcode with transfer order number to go to the transaction screen to confirm the orders.



Note:

This feature is applicable for **mInventory**.

To use this feature, ensure you:

- Enable the App ID: **NOSSN** in RACE™ Scoping.
- Configure the **TO Number** field as Scan field in RACE™ Searches.

To configure the **TO Number** as Scan field:

1. Click **Searches** on the left panel.
2. Click the **Filter**  icon and select TO Number in the **Module** field.
3. Click on the record with **Field** value as **TANUM**.
4. In the **Edit Search Field** pane, ensure the following properties are entered:

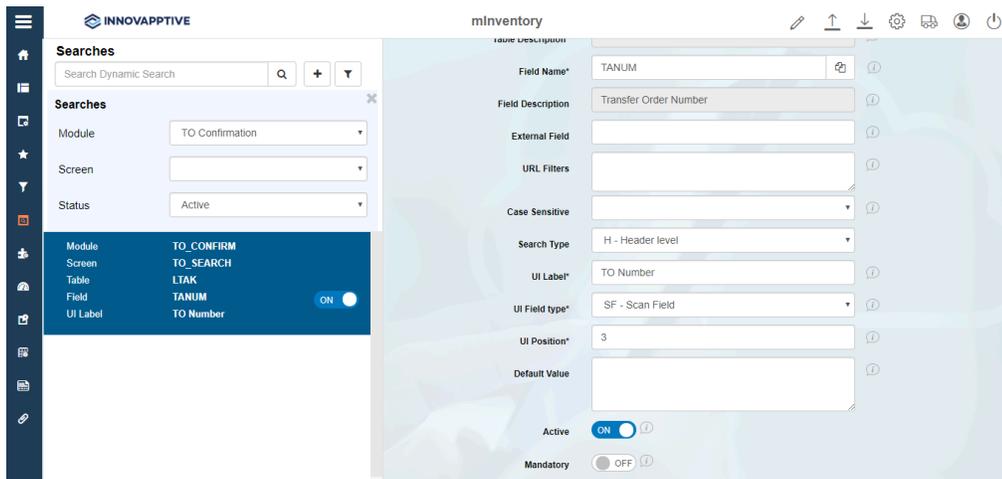
Table 7-1 Scan field attributes for TO Confirmation

Field	Value
Module	TO Confirmation
Screen	TO Search
Category	Extension
Table / BAPI Name	LTAK
Table Description	WM transfer order header
Field Name	TANUM
Field Description	Transfer Order Number
Search Type	H - Header Level
UI Label	TO Number

| 7 - Enable Scan functionality

Field	Value
UI Field type	SF - Scan Field
UI Position	3

Figure 7-1 Search Field Configuration



5. Turn ON the **ACTIVE** toggle switch.
6. Click **Save**.

8. Optimize Performance and Define Offline Configuration Parameters

Use the **Performance** menu to define the performance optimization and offline configuration parameters for the application.

The corresponding Table in SAP NetWeaver Gateway is **/INVCEC/DATACONF** and the transaction code is **/n/INVCEC/DATACONF**. Configurations in this table are populated through the mInventory Add-On transport, and you can update or modify them using RACE™.

To update a Data Configuration entry:

1. Click **Performance** on the left panel.

2. Click the **Add**  icon next to the search field.

You can also click the **Copy**  button on the details pane of an existing configuration to populate the properties in the **Create Performance** section.

3. In the **Create Performance** section, enter this information:

Table 8-1 Performance configuration attributes

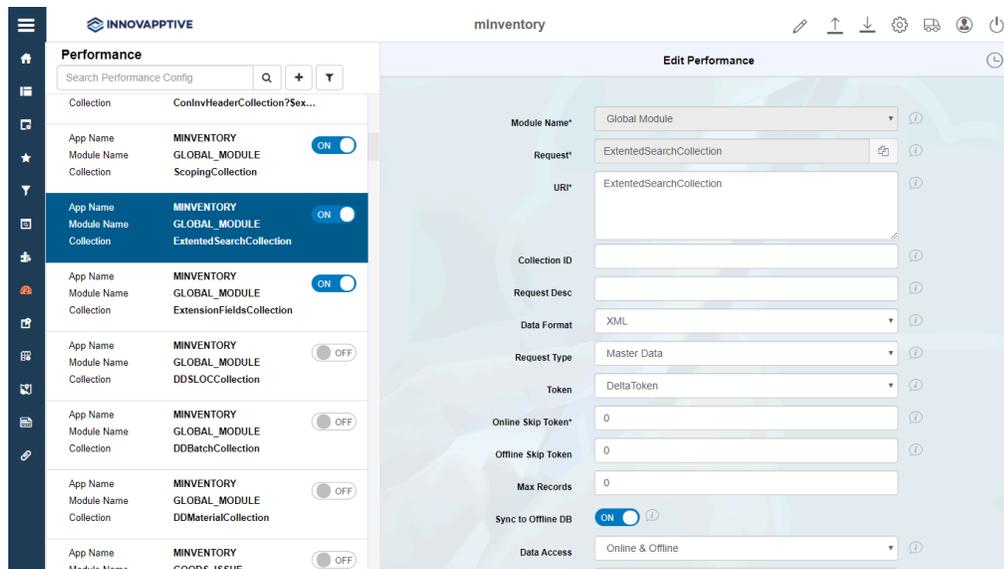
Field	Description
Module Name	Select the module to which the performance configuration is applicable.
Request	Select the Service collection that fetches data from SAP to mobile.
URL	Specify the additional filters to the existing entities.
Request Desc	Describe the Service collection that fetches data from SAP.
Data Format	Specify the data format like JSON or XML for the mobile application.

Field	Description
	<div data-bbox="873 302 1419 646" style="border: 1px solid #0070C0; border-radius: 10px; padding: 10px;"> <p> Note:</p> <ul style="list-style-type: none"> ◦ XML supports Delta and Skip token and is recommended for Transactional data. ◦ JSON supports only Skip token functionality and is recommended for Master Data. </div>
Request Type	<p>Select whether the data is Dynamic, Master or Transactional. This is for information purpose only.</p>
Token	<p>Select the Token type used for subsequent calls of the Collection. For example, Skip token is used to load specified size of data while Delta token is used to load only delta data on subsequent requests.</p> <div data-bbox="873 1100 1419 1276" style="border: 1px solid #0070C0; border-radius: 10px; padding: 10px;"> <p> Note:</p> <p>This field is enabled only if Data Format is XML.</p> </div>
Online Skip Token	<p>Enter the number of Collection records that must be fetched when the device is connected to the network. The Collection call fetches data records in increments of the Page Size.</p> <div data-bbox="873 1575 1419 1751" style="border: 1px solid #0070C0; border-radius: 10px; padding: 10px;"> <p> Note:</p> <p>This field is enabled only if Skip Token is implemented.</p> </div>

Field	Description
Offline Skip Token	<p>Enter the number of Collection records that must be fetched when the device is not connected to the network. The Collection call fetches data records in increments of the Page Size.</p> <div data-bbox="862 527 1421 699" style="border: 1px solid #0070C0; border-radius: 10px; padding: 10px; background-color: #E6F2FF;"> <p> Note: This field is enabled only if Skip Token is implemented.</p> </div>
Max Records	<p>Define the maximum number of records to be fetched into the mobile application.</p>
Load More	<p>This is applicable only for Skip Token category. If Load More is enabled, the Collection records are retrieved with the Load More capability based on the Page Size.</p>
Sync to Offline DB	<p>Helps you select whether the Collection data is retrieved and available when the device is not connected to the network.</p>
Data Access	<p>Select the option to enable data retrieval. Possible values:</p> <ul style="list-style-type: none"> a. Offline b. Online & Offline <p>Following is the data access and retrieval process for each of these options.</p> <p>Offline: User initiates Data Retrieval Call</p> <pre style="background-color: #f0f0f0; padding: 10px;"> > Is data available in App Offline Store of device? > YES - Retrieve data from Offline Store > NO - Service call to SAP > Is Network available? > YES - Service call to SAP > NO - No records found </pre>

Field	Description
	<p>Online & Offline: User initiates Data Retrieval Call</p> <pre> > Is Network available? > YES - Service call to SAP > NO - Retrieve data from Offline Store > Is data available in App Offline Store of device? > YES - Retrieve data from Offline Store > NO - No records found </pre>
Filter Condition	Enter the condition/logic to filter data in a collection.

Figure 8-1 Performance configuration



4. Click **Save**.

Innovapptive recommends you to:

- Configure Master Data in JSON, Skip Token, Load More and Offline Only as:
 - Master data is not changed often compared to transactional data, and given the potentially larger volumes of master data, synchronizing master data and accessing it only from offline store helps improve the application performance and user experience.
 - Load More allows loading smaller packets of large volume of data thereby allowing user to only search for and work with smaller pools of data until request for additional data is initiated.
- Configure Transaction Data in XML, Delta Token and Offline Only as:
 - Transaction data is often changed, XML and Delta Token capabilities improve the delta data synchronization.
 - Offline Only access improves the application performance and user experience. Although for smaller volumes of transaction data, Online & Offline is recommended for real-time data availability and backend data validations to improve the accuracy of transaction data processing.



Note:

For recommended settings, see the RACE™ Preset Configuration spreadsheet. This spreadsheet contains fields configured to optimize app performance with attributes like Module Name, Request and Request Type.

8.1. Configure Skip Token functionality for Material search screen

Following steps guide you to configure the Skip token functionality for the Material Search Screen in GR—Others, GI—Others and TP—Others modules.

To configure Skip Token functionality:

1. Go to **Performance** menu.
2. Click **Add**.
3. Enter the following information:

Table 8-2 Skip Token - Performance

Field	Value
Module Name	Global Module
Request	DDMaterialCollection

Field	Value
URL	DDMaterialCollection
Data Format	XML
Request Type	Master Data
Online Skip Token	Enter the count of records to show in batches. If this value is entered as 20 then the Material search results are displayed in batches of 20 at a time.
Data Access	Online & Offline

4. Click **Create**.

8.2. Configure Offline Refresh Rate and Bandwidth

Bandwidth Timer (in seconds) indicates the wait time to fetch data from offline store if the application does not get data in online mode.

Refresh Rate indicates the time to refresh data sync for offline store. This is a way to refresh the offline store based on the time, which is configured in the backend with the property name **REFRESHRATE** in **AppConfigCollection**.

Figure 8-2 AppConfig Collection parameters

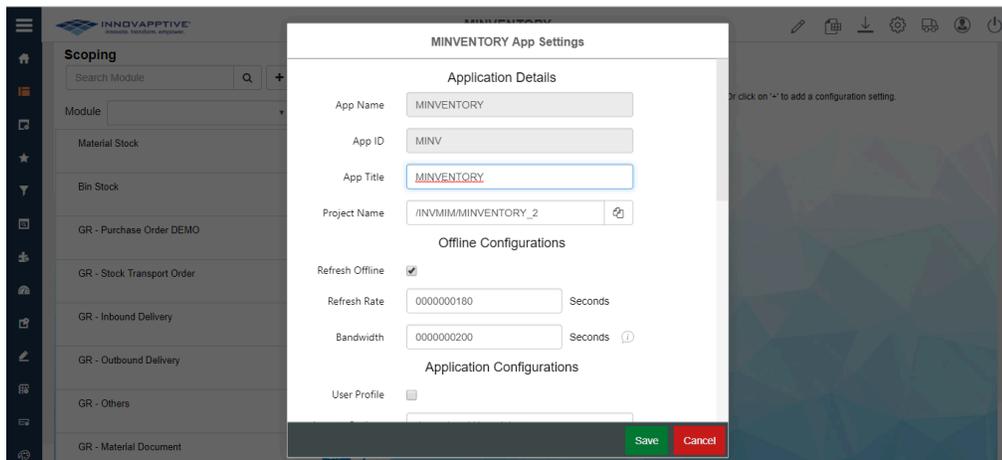
This XML file does not appear to have any style information associated with it. The document tree is shown below.

```
<?xml version="1.0" encoding="utf-8" ?>
<feed xmlns="http://www.w3.org/2005/Atom" xmlns:m="http://schemas.microsoft.com/ado/2007/08/dataservices/metadata"
xmlns:d="http://schemas.microsoft.com/ado/2007/08/dataservices" xml:base="http://54.84.178.208:8000/sap/opu/odata/I
" >
  <id>
    http://54.84.178.208:8000/sap/opu/odata/INVMWO/MWORKORDER_SRV/AppConfigCollection
  </id>
  <title type="text">AppConfigCollection</title>
  <updated>2016-05-19T12:25:44Z</updated>
  <author>
    <name/>
  </author>
  <link href="AppConfigCollection" rel="self" title="AppConfigCollection"/>
  <entry>
    <id>
      http://54.84.178.208:8000/sap/opu/odata/INVMWO/MWORKORDER_SRV/AppConfigCollection('0000000000')
    </id>
    <title type="text">AppConfigCollection('0000000000')</title>
    <updated>2016-05-19T12:25:44Z</updated>
    <category term="MWORKORDER_SRV.AppConfig" scheme="http://schemas.microsoft.com/ado/2007/08/dataservices/scheme"/
    <link href="AppConfigCollection('0000000000')" rel="self" title="AppConfig"/>
    <content type="application/xml">
      <m:properties xmlns:m="http://schemas.microsoft.com/ado/2007/08/dataservices/metadata" xmlns:d="http://schemas
      <d:SNO>0000000000</d:SNO>
      <d:APPNAME>MWORKORDER</d:APPNAME>
      <d:APPID>MWO</d:APPID>
      <d:SECURITYPROFILE>SSO2NGS</d:SECURITYPROFILE>
      <d:LANGUAGES>EN</d:LANGUAGES>
      <d:HOST>smpprd.innovapptive.com</d:HOST>
      <d:PORT>0000008080</d:PORT>
      <d:BANDWIDTH>000000020</d:BANDWIDTH>
      <d:HTTPS/>
      <d:EXEMPTION/>
      <d:REFRESHRATE>000000180</d:REFRESHRATE>
      <d:REFRESHOFFLINE/>
      </m:properties>
    </content>
  </entry>
</feed>
```

To set Offline Refresh rate and Bandwidth:

1. Click the **Settings** icon.
2. In **mInventory App Settings** window, enter time in seconds for **Refresh Rate** and **Bandwidth** in **Offline Configurations** section.

Figure 8-3 mInventory App Settings



3. Click **Save**.

9. Configure printers

You can configure the following printers using RACE™.

- [Configure Honeywell RP4 Printer \(on page 140\)](#)
- [Configure Zebra Printer \(on page 141\)](#)

9.1. Configure Honeywell RP4 Printer

Configure and connect the Honeywell printer to the app from the device Bluetooth settings to print barcode labels for Goods Receipt and Goods Issue transactions.

Prerequisites

- Enable Bluetooth connection to Honeywell Printer.
- Set the Paper roll in the Honeywell Printer.
- Size must be less than 23 KB.
- Paper size must be 4*1.

Enable the following App ID in Scoping.

Table 9-1 Honeywell RP4 Printer - Scoping

APP ID	Description
ATOPNT	Auto Print
GRMDOC	Goods Receiving Material Documents
GRLABL	GR Label
GIMDOC	Goods Issue Material Documents
GILABL	GI Label

Result

1. Goods Receiving

- If GRMDOC is enabled and GRLABL is disabled, app shows only Material Documents.
- If GRMDOC is disabled and GRLABL is enabled, app shows only Labels.
- If GRMDOC is disabled and GRLABL is disabled, app shows only Material Documents.

2. Goods Issue

- If GIMDOC is enabled and GILABL is disabled, app shows only Material Documents .
- If GIMDOC is disabled and GILABL is enabled, app shows only Labels.
- If GIMDOC is disabled and GILABL is disabled, app shows only Material Documents.

9.2. Configure Zebra Printer

Scan barcodes and print documents and labels using Zebra Printer from mInventory application.

Enable the following App ID in Scoping.

Table 9-2 Zebra Printer - Scoping

Field	Value
Type	Standard
System ID	ECC
Module Name	GLOBAL
App ID	ZEBPRN
Parent App ID	PRTYP
Description	Zebra Printer
Title	Zebra Printer

Refer the following to configure ZQ520 printer:

- <https://www.zebra.com/us/en/support-downloads/knowledge-articles/zebra-zq510-zq520-mobile-printer-initial-setup.html>
- <https://www.zebra.com/ap/en/support-downloads/printers/mobile/zq520.html>

10. Configure Scanner/Peripheral devices

You can configure the scanners and peripheral devices that you use using RACE™.

- [Configure Cognex Scanner \(on page 142\)](#)
- [Configure Zebra Scanner \(on page 142\)](#)

10.1. Configure Cognex Scanner



Note:

This feature / configuration is applicable for **mInventory**.

To configure Cognex peripheral scanner for scanning barcodes in mInventory:

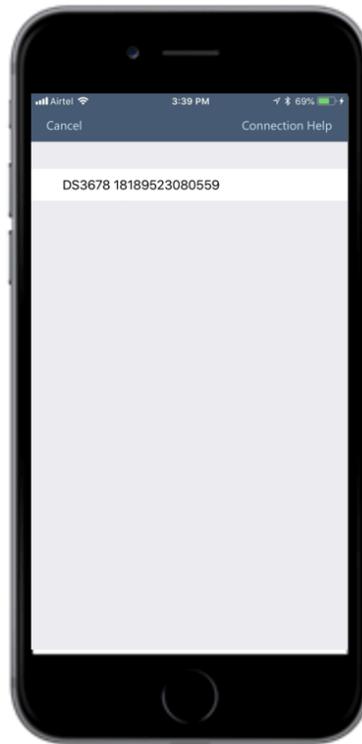
1. Install **DataMan** mobile app from Cognex on your iPhone/iPad.
2. Install mInventory mobile app on the iPhone/iPad, enter the mInventory app settings, and tap **Save** to configure the app.
3. Launch **DataMan** mobile app and scan the barcode.
4. Log in to the mInventory application.

10.2. Configure Zebra Scanner

To configure Zebra scanner for scanning barcodes in mInventory:

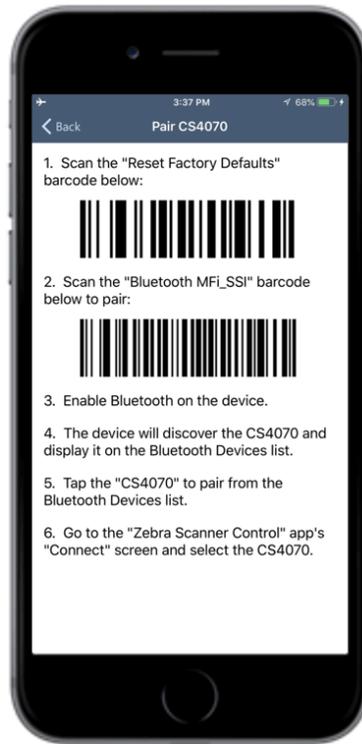
1. Select the scanner in Default Settings screen.
You are directed to Zebra scanners available devices list screen.
2. Select the scanner from the list.
If the device is not listed, click on Connection Help to follow the connection guidelines and find available devices.

Figure 10-1 Zebra Scanner Available Devices list



3. Select the device model to connect (for example: CS4070).
You are navigated to detail connection help screen to pair the device with Bluetooth.
Refer the following screen:

Figure 10-2 Scanner Pairing instructions



11. Define localization entries

Use the **Localization** menu to define the local language translation for UI fields.

The corresponding Table in SAP NetWeaver Gateway is **/INVCEC/UIABELT** and the transaction code is **/n/INCEC/UIABELT**. Application configurations in this table are populated through the mInventory Add-on transport and you can update them using RACE™.

To add/change a translation entry:

1. Click **Localization** on the left panel.
2. Click **Add**.

You can also select an existing record and click the **Copy**  icon to populate the properties to **Add Translation entry** window and modify them.

Add Translation entry pop-up window appears.

3. Select the **Language, Module Name, Screen Name**.
4. Enter the **Field Name** and the translation in the **UI Label** field.
5. Click **Create**.

You can do the following:

- Sort or filter existing translations: Click the column header and select **Sort Ascending** or **Sort Descending**. Enter a value in the **Filter** field to search the translation values.
- Change a translation: Select and change the **UI Label** value and click the **Save**



- Remove a translation: select the record and click the **Delete**  icon.



Note:

For recommended settings, see the RACE™ Preset Configuration spreadsheet. This spreadsheet contains fields with attributes like Module Name, Screen, UI Label and Field Name.

12. Configure attachments types

Learn to configure attachment types like PDF, DOC, TXT and JPG for mobile application and post them to Archive server (DMS, Archive Link).

To configure attachments:

1. Click **Attachment Config** in the left panel.
2. Click **Add**.



You can also click the **Copy** button on the details pane of an existing configuration to populate the properties in the **Create Attachment Configuration** section.

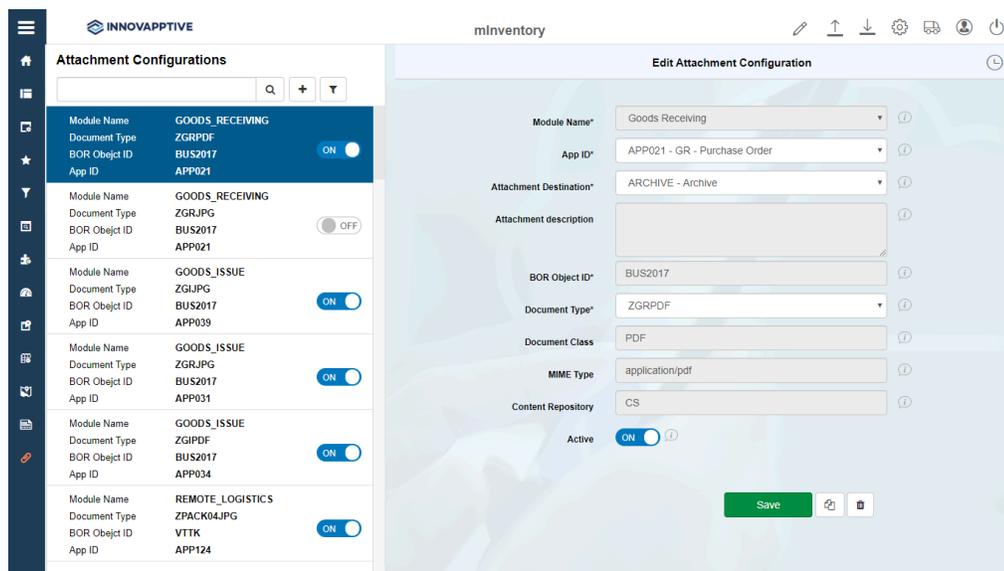
3. In the **Create Attachment Configuration** screen, enter this information:

Table 12-1 Attachment Configuration attributes

Field	Value
Module	Module name of the application like Goods Receipt–Purchase Order.
App ID	Unique identity (alpha numeric) to specify the ID for the application.
Attachment Destination	Destination system to which the attachments/files are routed.
Attachment Description	Auto-populated based on the Attachment Destination .
BOR Object ID	Object ID of the SAP document like Purchase Order. Auto-populated based on the Attachment Destination
Document Type	Stored documents are classified based on the document types .
Documentation Class	The technical document class identifies the archive format for documents in the content server. Auto-populated based on the Document Type

Field	Value
MIME Type	Auto-populated based on Document Type .
Content Repository	Auto-populated based on Document Type .
Active	To enable/disable the configuration for attachments.

Figure 12-1 Create Attachment Configuration



4. Click **Create**.

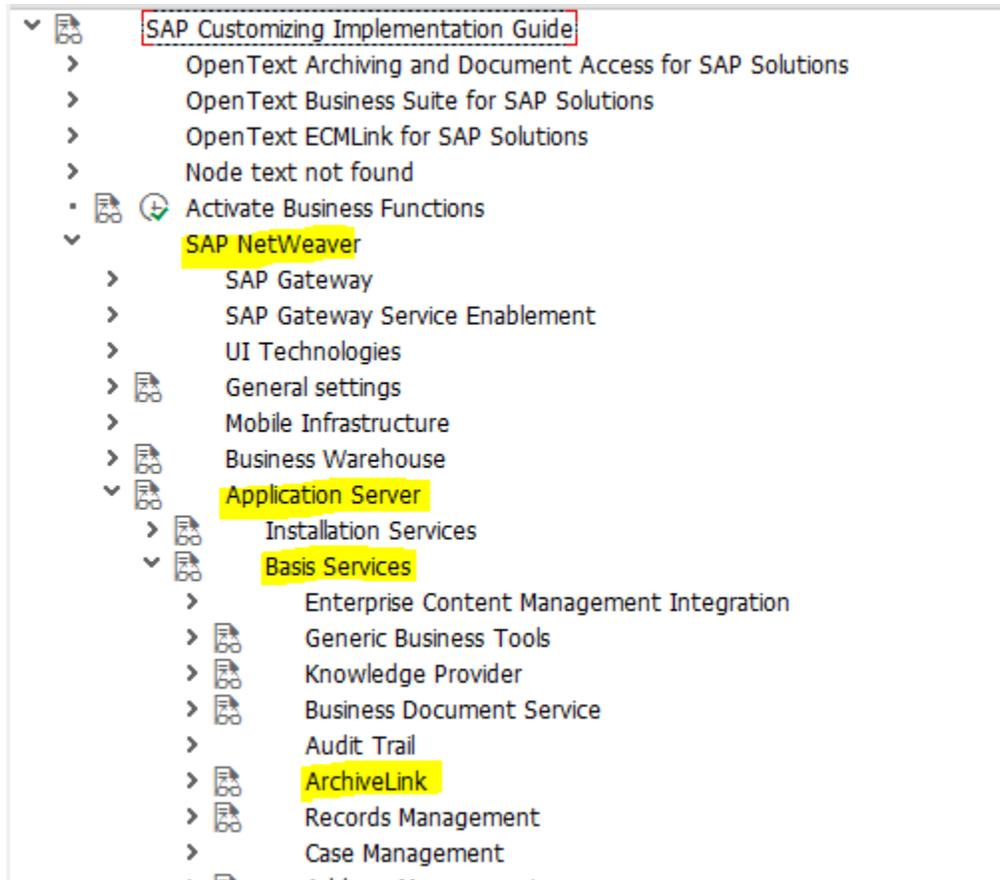
12.1. Enable Archive Link in SAP

Once the transaction is processed from the mobile application, attachments linked to the record are pushed to the content server.

To configure and enable Archive Link in SAP:

1. Go to **SAP Customizing Implementation Guide, SAP NetWeaver, Application Server, basis Services, ArchiveLink, Basic Customizing.**

Figure 12-2 Archive Link path



2. Define Content Repository AA link to Open Text DMS.

Figure 12-3 Content Repository AA

Content Rep.	AA	Active	1 / 1
Description	Open text content repository for E16		
Document Area	ARCHLINK ArchiveLink		
Storage type	04 HTTP content server		
Protocol	OT_HTTP	CS Admin	
Version no.	0045	Content Server version 4.5	
HTTP server	muntsd-s-70627.europe.shell.com		
Port Number	8080	SSL Port Number	8090
HTTP Script	archive		
Transfer drctry	usr/sap/tmp		
Phys. path	usr/sap/tmp		
OutputDevice	SLOCL		
HTTPS on frontend	3 HTTPS required	HTTPS on backend	1 HTTPS possible

3. Define Document Classes as per attached document type or folder.

Figure 12-4 Document Classes

Document Class	Description	MIME type of a Web object
/OTX/RM_FOLDER	OpenText Workspace - Folder	elib/folder
JPG	Joint Photographic Experts Group format	image/jpeg
PDF	Portable Document Format	application/pdf

4. Link Document Types to document classes.

Figure 12-5 Document Types -> Document Classes

Document...	Description	Document Class	Status
ZGR	Goods Receipt Folder	/OTX/RM_FOLDER	<input type="checkbox"/>
ZGRJPG	Goods Receipt JPG	JPG	<input type="checkbox"/>
ZGRPDF	Goods receipt PDF	PDF	<input type="checkbox"/>

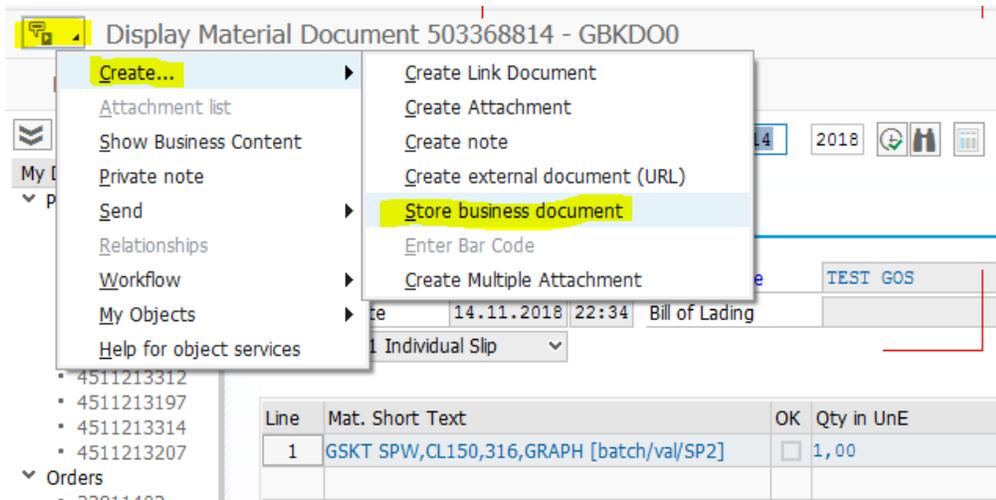
5. Define links to manage how attached documents of an application are stored/grouped to document types.

Figure 12-6 Links for documents

ObjectType	Doc. Type	L	Cont.Rep.ID	Link	Retent.Period
BUS2017	ZGR	X	AA	TOA01	9999
BUS2017	ZGRJPG	X	AA	TOA01	9999
BUS2017	ZGRPDF	X	AA	TOA01	9999

6. Go to **“services for object” functionality, Create... Store business document** to create store business document.

Figure 12-7 Create Store Business Document



12.2. Configure attachments for Inventory and Warehouse Cycle Counting

Configure attachment types that the personnel who does counting can capture and add attachments to the inventory record.

- Enable the following App IDs in Scoping.
 1. For Inventory Cycle Counting: **CCMAAT**
 2. For Warehouse Cycle Counting: **CCWHAT**
- Configure document types in SAP. See [Enable Archive Link in SAP \(on page 147\)](#).

Do the following configurations:

1. Click **Attachment Config** in the left panel.
2. Click **Add**.
3. In the **Create Attachment Configuration** screen, enter this information:

Table 12-2 Inventory Cycle Counting - Attachment Configuration

Field	Value
Module Name	Material Cycle Count
App ID	CCMAAT
Attachment Destination	Archive
BOR Object ID	BUS2028. This value is auto-populated.
Document Type	Select the type of file or document.
Document Class	Auto-populated
Content Repository	Auto-populated

Table 12-3 Warehouse Cycle Counting - Attachment Configuration

Field	Value
Module Name	WM Bin Count
App ID	CCWHAT
Attachment Destination	Archive
BOR Object ID	BUS3021. This value is auto-populated.
Document Type	Select the type of file or document.
Document Class	Auto-populated

4. Set the **Active** toggle to **ON**.
5. Click **Create**.

13. Configure and print custom barcode and labels

Configure barcode labels of your choice like Material Label with custom fields in the label.

To use this feature, you must configure the following:

- Custom screen in the Label Printing module. See [Create custom screen for an existing module \(on page 78\)](#).
- Components for the custom screen. See [Configure custom screen components \(on page 79\)](#).
- Extension for the custom screen. See [Configure Extensions \(on page 82\)](#).

13.1. Configure template for Barcode labels

Learn to configure template for barcode labels with parameters like Barcode Type, Layout, Height and Width.

To configure:

1. Click **Barcode Layout** on the left panel.

2. Click the **Add**  icon next to the search field.

You can also click the **Copy**  button on the details pane of an existing configuration to populate the properties in the **Create Barcode Layout** section.

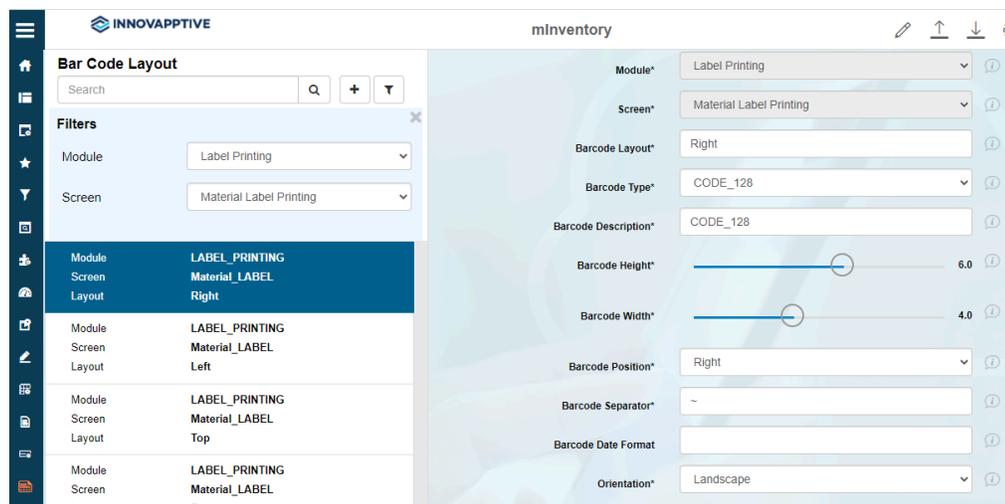
3. In the **Create Barcode Layout** section, enter this information:

Table 13-1 Barcode layout configuration attributes

Field	Description
Module	Select the Module for which the barcode template is configured.
Screen	Screen for which the data is printed on barcode.
Barcode Layout	Position of the barcode layout on the screen.
Barcode Type	Type of Barcode like GS1, QR Code, Data Matrix .
Barcode Description	Auto-populated based on Barcode Type .

Field	Description
Barcode Height	Use the slider to set the Height of barcode.
Barcode Width	Use the slider to set the Width of barcode.
Barcode Position	Select the position of Barcode on the layout.
Barcode Date Format	Required date formats in label printing and barcode layouts.
Orientation	Use to set it either Landscape or Portrait

Figure 13-1 Storage Bin Barcode Layout



4. Click **Create**.

13.2. Configure Print Label Layouts

Configure print label layout using the Extensions menu.

You can configure print labels layouts in the following ways:

- Auto-populate material description based on material number in transaction.
- In table format for better user experience.
- Capitalize Batch field value.

When you complete configuring, a barcode preview would look like shown in the image below

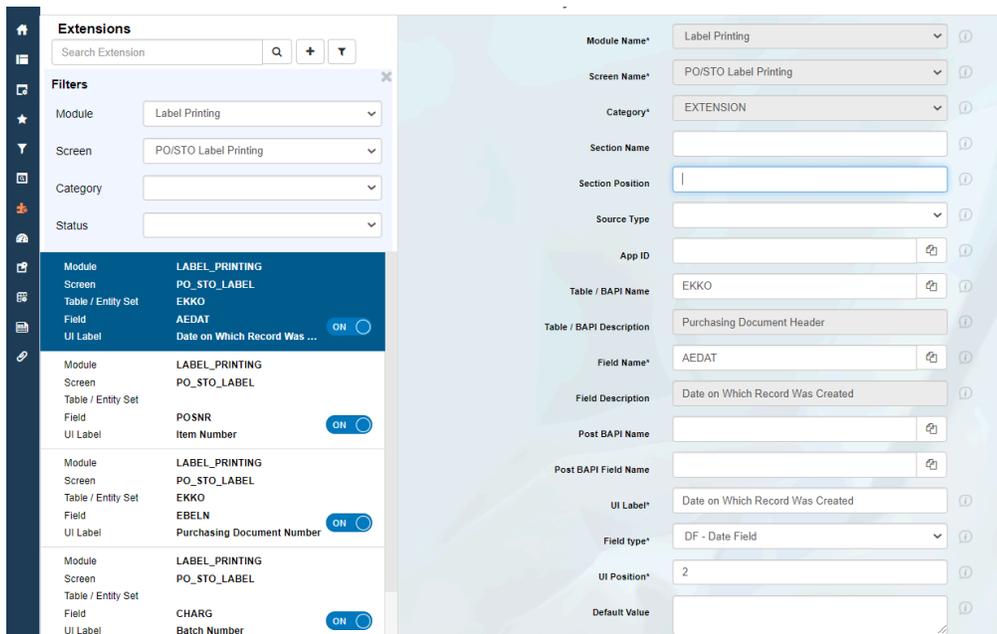
Figure 13-2 Barcode Label Preview

PO:	45157169
PO Item:	10
Material:	S0005880
Description:	Bucket,HDPE,with lid and tap,20 litres
Quantity:	530
Batch:	LMH34RG
Man. Date (YYMMDD):	181002
Exp. Date (YYMMDD):	220430

To configure barcode label,

1. Click the **Extensions** option in the left navigation menu.
2. Click the **Filter** button next to the **Search Extensions** field.
3. Select **Label Printing** for the **Module** field.

Figure 13-3 Barcode Label Preview Configuration Screen



You can configure barcode label preview layout for the following:

- OD-HU Label Printing
- PO/STO Label Printing
- Bin Label Printing
- RO Label Printing

13.3. Print Labels

Option to print labels are enabled by default in RACE. You can enable or disable them in the **Extensions** menu.

You can enable and disable print labels feature for all the modules. Picking module is used as an example to demonstrate the feature.

To enable and disable print label option for a module,

1. Click the **Extensions** option in the left navigation menu.
2. Click the **Filter** button next to the **Search Extensions** field.
3. Select **Picking** for the **Module** field.
4. Choose **Picking Label Print** for the **Screen** field.
The options are displayed.
5. Click **On/ off** options to enable and disable label printing option.

13.4. Create Barcode Labels using Existing Barcode Labels

Scan and capture data barcode labels to generate new labels for any configurable fields. When a barcode label is scanned, the data in the fields is captured and populated on the app. Use the data to generate another barcode label. You can create this option the Searches menu.

To configure barcode label,

| 13 – Configure and print custom barcode and labels

1. Click the **Searches** option in the left navigation menu.
2. Click the **Filter** button next to the **Searches** field.
3. Select **Label Printing** for the **Module** field.

Figure 13-4 Barcode Label Preview Configuration Screen

4. Enter the following string in the **Default Value** field.

```
{
  "SEPERATOR": "~",
  "COMBOSCAN": [
    [
      {
        "FIELDNAME": "EBELN",
        "FIELDLENGTH": "10",
        "SEARCHTYPE": "H",
        "OPERATIONTYPE": "B",
        "MANDATORY": "",
        "CATEGORY": "STANDARD",
        "OPTIONAL": ""
      }, {
        "FIELDNAME": "EBELP",
        "FIELDLENGTH": "10",
        "SEARCHTYPE": "I",
        "OPERATIONTYPE": "B",
        "MANDATORY": "",
        "CATEGORY": "STANDARD"
      }
    ], {
      "FIELDNAME": "MATNR",
```

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```
"FIELDLENGTH": "10",  
"SEARCHTYPE": "I",  
"OPERATIONTYPE": "B",  
"MANDATORY": "",  
"CATEGORY": "STANDARD",  
"OPTIONAL": ""  
}, {  
"FIELDNAME": "OPENQTY",  
"FIELDLENGTH": "10",  
"SEARCHTYPE": "I",  
"OPERATIONTYPE": "B",  
"MANDATORY": "",  
"CATEGORY": "STANDARD",  
"OPTIONAL": ""  
}]  
]  
}
```

5. Click **Save**.

14. Create custom module and screens (Add New module)

Configure module and screens of your choice to cater to your specific business requirements

Innovapptive mobile applications provide you modules and screens out of the box to cater to your core business processes. However, you can also create additional modules and screens on the fly using RACE™.

You can create and configure custom module using set of templates with font style, size, etc. Once a module and screen are defined, you can configure fields (extensions), filters and default values for the fields.

For more information, see *Configure Custom Module Using RACE™ Guide*.