

# RFID-Enabled Slap&Ship Outbound Processing: Configuration Guide



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## Icons in Body Text

Icon	Meaning
	Caution
	Example
	Note
	Recommendation
	Syntax

Additional icons are used in SAP Library documentation to help you identify different types of information at a glance. For more information, see *Help on Help → General Information Classes and Information Classes for Business Information Warehouse* on the first page of any version of *SAP Library*.

## Typographic Conventions

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

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## RFID-Enabled Slap&Ship Outbound Processing: Configuration Guide

### Use

This business scenario configuration guide applies to the *RFID-Enabled Slap&Ship Outbound Processing* business scenario with the corresponding releases of SAP application components.

#### Business Scenario and Application Components

Business Scenario	Application Component with Minimum Release
<i>RFID-Enabled Slap&amp;Ship Outbound Processing</i>	SAP Auto-ID Infrastructure (SAP AII) 2.1



For more information about the necessary components and releases, see the *RFID-Enabled Supply Chain Execution Master Guide* in the SAP Service Marketplace at [service.sap.com/instguides](http://service.sap.com/instguides) → *Installation* → *Installation & Upgrade Guides* → *SAP Components*.

### Contents

The business scenario configuration guide contains all steps required to implement *RFID-Enabled Slap&Ship Outbound Processing*. The guide specifies the sequence of the configuration activities, and their dependencies. It includes information about the following topics:

- System connections
- Business Customizing (including master data settings)



For more information about *RFID-Enabled Standalone Outbound Processing*, see SAP Service Marketplace at [service.sap.com/ibc](http://service.sap.com/ibc) → *mySAP SCM* → *RFID-Enabled Supply Chain Execution*.

### Target Group

- Technical consultants
- Application consultants
- Project team members during the implementation of an SAP solution
- SAP customer IT department

The sections are aimed at both technical and application consultants. Other target groups may find certain sections important as well.



## SAP Notes

### Use

Before you start to configure this business scenario, consult the following SAP notes. This summary only contains major SAP notes, to give you an initial overview.

### Central SAP Notes for the Business Scenario

Support Package	SAP Note	Title of SAP Note
00	791067	Packing with more than one item not always working
00 and 01	788512	Key of ODS object 9AIIDS01 is too long



To get a comprehensive and up-to-date overview of the SAP notes about a business scenario and its SAP application components, use the note search function on the SAP Service Marketplace at [service.sap.com/notes](http://service.sap.com/notes).

## Users and Roles in SAP All

### User Management

For creating of users and roles in SAP All, refer to SAP Help Portal at <http://help.sap.com> → SAP NetWeaver → Security → SAP NetWeaver Security Guide → User Administration and Authentication.

### Roles

SAP Auto-ID Infrastructure provides the following roles:

- SAP\_AIN\_ADMINISTRATOR  
As an administrator you will usually also need the roles SAP\_XI\_APPL\_SERV\_USER, SAP\_XI\_ADMINISTRATOR\_ABAP and SAP\_XI\_MONITOR\_ABAP.
- SAP\_AIN\_SUPERVISOR
- SAP\_AIN\_WORKER



For more information, see the system documentation for each role (transaction PFCG).

### Authorization Objects

The delivered roles have preconfigured authorization objects associated with them. If you create **new roles**, or **modify existing roles**, you can choose the authorization objects associated with those roles.

In ABAP, most transactions have a corresponding authorization object that gives the user permission to display or change data. However, some of the All Web browser (Web Dynpro) screens are not available in ABAP. For those screens, use an authority object for an ABAP screen with similar functionality. The table below shows the mapping of the Web Dynpro screens to the ABAP authority objects used for checking user permissions.

#### Mapping of Java screens to ABAP Authority Objects/Transactions

Web Dynpro Auto-ID Infrastructure Menu Option	ABAP Screen	Authority Object	Field	Values
<i>Master Data</i> →	COMMPR01	COM_PRD	ACTVT	02, 03

<i>Product</i>				
<i>Master Data → Location</i>	/AIN/MDL	/AIN/LOC	ACTVT	02, 03
<i>Master Data → Business Partner</i>	BP	B_BUPA_RLT	ACTVT	02, 03
<i>Master Data → GTIN Number Range</i>	/AIN/GTIN	/AIN/GTIN	ACTVT	02, 03
<i>Master Data → SSCC Number Range</i>	/AIN/SSCC	/AIN/SSCC	ACTVT	02, 03
<i>Monitoring → Document Status</i>	/AIN/TDES	S_TCODE	TCD	/AIN/TDES
<i>Monitoring → Object Query</i>	/AIN/QUPAC	S_TCODE	TCD	/AIN/QUPAC
<i>Monitoring → Unexpected Events</i>	/AIN/UE	S_TCODE	TCD	/AIN/UE
<i>Execution → Commission Tag</i>	/AIN/WRITETAG	S_TCODE	TCD	/AIN/WRITETAG
<i>Execution → Pack</i>	/AIN/PACK	S_TCODE	TCD	/AIN/PACK
<i>Execution → Load</i>	/AIN/LOAD	S_TCODE	TCD	/AIN/LOAD
<i>Execution → Assign Document</i>	/AIN/ASSIGNDOC	S_TCODE	TCD	/AIN/ASSIGNDOC



## Settings in SAP BW

### Introduction

The following section describes the settings needed for SAP BW.

### BI Content for SAP Auto-ID Infrastructure

Built-in SAP BI capability provides flexible reporting based on a history of EPC observations – recorded by SAP Auto-ID Infrastructure (SAP All) or from external sources.

SAP All delivers the following SAP BI business content:

#### Queries

- *Quality of Reads* (9All\_C01\_Q0001)
- *Quality of Writes* (9All\_C01\_Q0002)
- *Situation of Stock in Different Locations* (9All\_C01\_Q0003)

#### InfoCubes

- *Reporting for All Using Internal and External Data (9All\_C01)*

### ODS Objects

- *All Using Internal Data (9All\_DS01\_INT)*
- *All Using External Data (9All\_DS01\_FF)*

### InfoSources

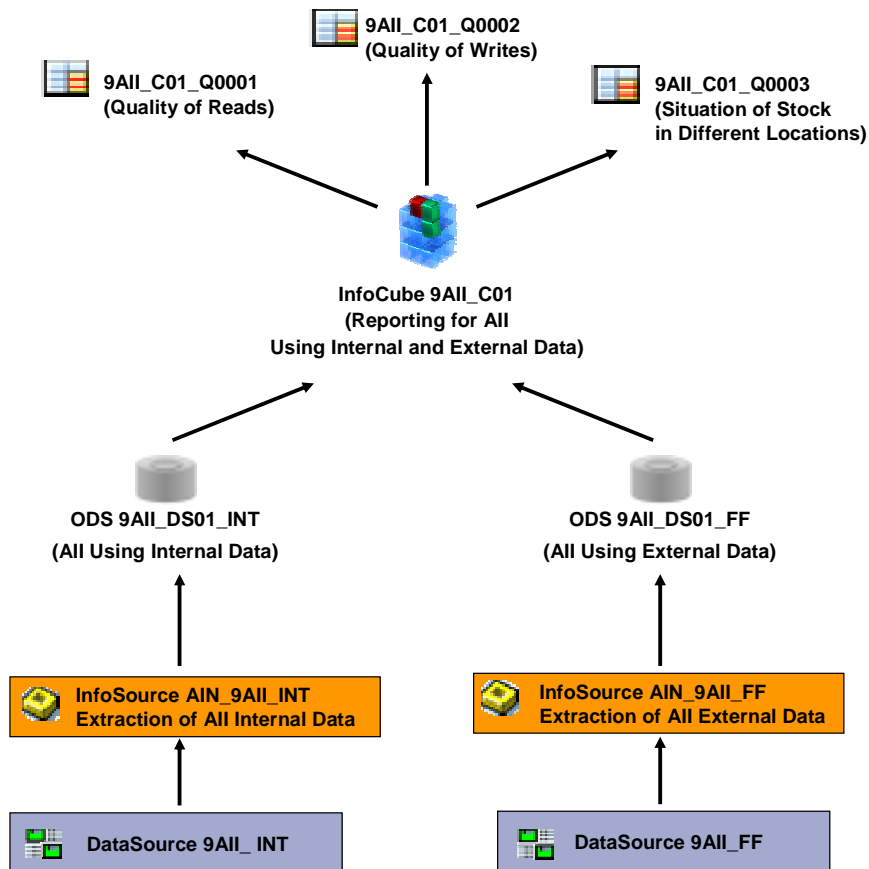
- *InfoSource for Extraction of All Internal Data (AIN\_9All\_INT)*
- *InfoSource for Extraction of All External Data (AIN\_9All\_FF)*

### DataSources

- *All Internal Data (9All\_INT)*
- *All External Data (9All\_FF)*

## Data Flow

The following graphic displays the data flow with the corresponding valuation levels:



### See also:

For detailed information on the BI Content, refer to SAP Help Portal at [help.sap.com](http://help.sap.com) → *mySAP Business Suite* → *mySAP Supply Chain Management* → *SAP Auto-ID Infrastructure* → *Reporting with SAP Business Intelligence*.

For general information on SAP BI, see SAP Help Portal at [help.sap.com](http://help.sap.com) → *SAP NetWeaver* → *Information Integration* → *SAP Business Information Warehouse*.





## Initializing SAP BW

### Procedure

1. Define the client for SAP Business Information Warehouse (SAP BW) in table RSADMINA.



This client needs to be different from client 000. For more information, refer to SAP Note 355814.

2. Define a logical system for the BW client and assign the logical system to the BW client.
3. Create a technical user for communication between SAP All and SAP BW.

In the command field, enter transaction **ST01** and create a technical user, for example **BIWREMOTE**, and assign the roles **SAP\_AIN\_ADMINISTRATOR** and the profile **S\_BI-WX\_RFC** to this technical user. For more information, see SAP Note 784891.

4. Define a technical user for communication between the application and SAP BW.
  - a. In the command field, enter transaction **SM30**.
  - b. In the *Table/View* field enter **RSADMINAV** and choose *Maintain*.
  - c. In the *RSADMINA Maintenance* view, enter the newly defined technical user in the *BW User ALE* field.
5. Transfer the application component hierarchy and transfer the DataSources.
  - a. In the command field, enter transaction **SBIW**.
  - b. Choose *Data Transfer to the SAP Business Information Warehouse* → *Business Content Data Sources* → *Transfer Application Component Hierarchy* and choose then Yes.
  - c. Choose *Data Transfer to the SAP Business Information Warehouse* → *Business Content Data Sources* → *Transfer Business Content DataSources* and maintain the following settings: Choose **9All\_BW\_DATASOURCES** → **9All\_TRANS\_DATA**, select the DataSources **9All\_FF** and **9All\_INT** and choose *Transfer DataSources*.



For general information, see SAP Help Portal at [help.sap.com](http://help.sap.com) → *SAP NetWeaver* → *Information Integration* → *SAP Business Information Warehouse* → *Data Warehousing* → *Data Retrieval* → *Data Extraction from SAP Source Systems*.



## Activating BI Content and Setting up Data Extraction

### Use

SAP delivers BI Content that is tailor-made for the requirements of the *RFID-Enabled Slap&Ship Outbound Processing* business scenario. If you want to use the Business Content, you must first copy it to the active version.



For general information on installing BI Content, refer to SAP Help Portal at [help.sap.com](http://help.sap.com) → *SAP NetWeaver* → *Information Integration* → *SAP Business Information Warehouse* → *Data Warehousing* → *Data Warehouse Management* → *Business Content (Versions)* → *Installing Business Content*.

For an overview of the Business Content, see [Settings in SAP BW \[Seite 7\]](#).

Furthermore, you need to set up data extraction by defining a source system for the upload of external data and by assigning DataSources to InfoSources.



For general information on transferring data from flat files, see SAP Help Portal at [help.sap.com](http://help.sap.com) → *SAP NetWeaver* → *Information Integration* → *SAP Business Information Warehouse* → *Data Warehousing* → *Data Retrieval* → *Data Transfer from Flat Files*.

For general information on assigning DataSources to InfoSources, see SAP Help Portal at [help.sap.com](http://help.sap.com) → *SAP NetWeaver* → *Information Integration* → *SAP Business Information Warehouse* → *Data Warehousing* → *Data Retrieval* → *Source System* → *Data Extraction from SAP Source Systems* → *DataSource* → *Assigning DataSources to InfoSources and Fields to InfoObjects*.

## Procedure

1. In the command field, enter transaction **RSA1** to reach the *Administrator Workbench*.  
If the system prompts you to define a logical system for SAP BW and to assign this newly defined logical system to the appropriate BW client, maintain the necessary settings. You then need to replicate the metadata.  
For general information on the *Administrator Workbench* in SAP BW, refer to SAP Help Portal at [help.sap.com](http://help.sap.com) → *SAP NetWeaver* → *Information Integration* → *SAP Business Information Warehouse* → *Data Warehousing* → *Administrator Workbench*.
2. Activate the InfoSources.
  - a. In the *Administrator Workbench* (transaction code **RSA1**), choose *Business Content* → *InfoSources by Application Component*.
  - b. Select the InfoSources AIN\_9All\_INT and AIN\_9All\_FF.
  - c. Select *Grouping* → *Dataflow Before and Afterwards*.
  - d. Select *Collection Mode* → *Collect Automatically*.
  - e. Use the drag-and-drop function to transfer the InfoSources into the right-hand *Collected Objects* area of the screen.
  - f. Choose *Select All*.
  - g. Choose *Install* → *Install*.
  - h. In the *Merge InfoObject Calendar day (OCALDAY)* screen, chose *Transfer all without dialog*.
3. Define a source system for the upload of external data using flat files.
  - a. In the *Administrator Workbench*, choose *Modeling* → *Source Systems*.
  - b. In the context menu of *Source Systems*, choose *Create* → *File System (Manual Metadata, data using File Interface)* and maintain your source system for the InfoSource AIN\_9All\_FF.  
The source system is meant to be a file system in this context. When asked for the *Logical System Name* and *Source System Name*, enter names that differ

from the names used for the BW system. You can freely define the names of the systems.

4. Assign source systems and DataSources to the InfoSources.

- a. In the *Administrator Workbench*, choose *Modeling* → *InfoSources*.
- b. In the context menu of the InfoSource AIN\_9AII\_FF, choose *Change*.
- c. Expand the *Transfer Structures/Transfer Rules* group box.
- d. Assign the newly defined source system for the upload of external data to the InfoSource.
- e. Assign the DataSource AIN\_9AII\_FF to the InfoSource.



If the necessary DataSource is not available for your source system, choose *Modelling* → *Source Systems*. In the context menu of the DataSource, choose *Replicate DataSources*.

- f. On the *Transfer Rules* tab, maintain the following settings:

**Assign InfObject-field**

InfoObject	Description	Field
9AII_EPC_S	Electr. Product Code	/BI0/9AII_EPC_S
9AII_PRO_T	Product description	/BI0/9AII_PRO_T
9AII_LOC_I	Location identifier	/BI0/9AII_LOC_I
9AII_EPCNO	Electr. Product Code	/BI0/9AII_EPCNO
9AII_GTIN	Glob.TradeltemNo.	/BI0/9AII_GTIN
9AII_EX_TS	Execution time stamp	/BI0/9AII_EX_TS
9AII_RLOTY	Reader location type	/BI0/9AII_RLOTY
9AII_LO_TL	Location description	/BI0/9AII_LO_TL
9AII_LO_TS	Location description	/BI0/9AII_LO_TS
9AII_STAT	Virtual status	/BI0/9AII_STAT
9AII_SU_RF	Successful read Indicator	/BI0/9AII_SU_RF
9AII_EX_RF	Expected read Indicator	/BI0/9AII_EX_RF
9AII_INFNTY	Info type	/BI0/9AII_INFNTY
0RECORDMODE	Update Mode	RECORDMODE

- g. Choose *Activate*.
- h. Go back to the Administrator Workbench.
- i. In the context menu of the InfoSource AIN\_9AII\_INT, choose *Change*.
- j. Expand the *Transfer Structures/Transfer Rules* group box.
- k. Ensure that the correct source system is assigned to the InfoSource.
- l. Assign the DataSource AIN\_9AII\_INT to the InfoSource.



If the necessary DataSources are not available for your source system, choose *Modeling* → *Source Systems*. In the context menu of the DataSource, chose *Replicate DataSources*.

m. On the *Transfer Rules* tab page maintain the following settings:

**Assign InfObject-field**

<b>InfoObject</b>	<b>Description</b>	<b>Field</b>
9AII_CLNT	Client	MANDT
9AII_EPCNO	Electronic Product Code	EPC_NO
9AII_EPC_H	Hexadecimal representation of the EPC number	EPC_NO_HEX
9AII_INFNTY	Information type	INFOTYPE
9AII_GTIN	Global Trade Item Number (GTIN)	GTIN
9AII_GTINV	GTIN Type	GTIN_VAR
9AII_SSCC	Serial Shipping Container Code	SSCC
9AII_EX_DT	Execution date	EXEC_DATE
9AII_EX_TI	Execution time	EXEC_TIME
9AII_DEV_I	Device ID	DEV_ID
9AII_DEV_T	Device Description	DEV_DESCR
9AII_DVG_I	Device Group ID	DEVGRP_ID
9AII_DVG_T	Device Group Description	DEVGRP_DESCR
9AII_LOC_I	Location ID	LOC_ID
9AII_LOCTY	Location Type	LOC_TYPE
9AII_LO_TL	Location Description	LOCDESC
9AII_SU_RF	Success Read Indicator	SUCC_R_FLAG
9AII_EX_RF	Expected Read Indicator	EXP_R_FLAG
9AII_IN_F	Inward Inventory Movement Indicator	IN_MV_FLAG
9AII_OUT_F	Outward Inventory Movement Indicator	OUT_MV_FLAG
9AII_BUPA	Business Partner Number	BU_PARTNER
9AII_PRO_I	Product ID	PRODUCT_ID
9AII_PRO_T	Product Description	PROD_DESCR
9AII_DOC_I	Document ID	DOC_ID
9AII_DOCTY	Document Type	DOC_TYPE
9AII_ACTTY	Action Type	ACTION_TYPE
9AII_DVGRO	Business Role of a Device Group	DEVGRP_ROLE
0RECORDMODE	Cancel Data Record Indicator	ROCANCEL
9AII_PAN01	Activity Parameter Name	PARAM_NAME_01
9AII_PAV01	Activity Parameter Value	PARAM_VALUE_01

9AII_PAN02	Activity Parameter Name	PARAM_NAME_02
9AII_PAV02	Activity Parameter Value	PARAM_VALUE_02
9AII_PAN03	Activity Parameter Name	PARAM_NAME_03
9AII_PAV03	Activity Parameter Value	PARAM_VALUE_03
9AII_PAN04	Activity Parameter Name	PARAM_NAME_04
9AII_PAV04	Activity Parameter Value	PARAM_VALUE_04
9AII_PAN05	Activity Parameter Name	PARAM_NAME_05
9AII_PAV05	Activity Parameter Value	PARAM_VALUE_05

n. Choose *Activate*.

5. Activate the queries for InfoCube 9AII\_C01.

- a. In the *Administrator Workbench*, choose *Business Content* → *InfoProviders by InfoAreas*.
- b. Select the InfoCube 9AII\_C01.
- c. Select *Grouping* → *Dataflow Afterwards*.
- d. Select *Collection Mode* → *Collect Automatically*.
- e. Use the drag-and-drop function to transfer the InfoCube into the right-hand *Collected Objects* area of the screen.
- f. Choose *Select All*.
- g. Choose *Install* → *Install*.
- h. In the *Merge InfoObject Calendar day (0CALDAY)* screen, chose *Transfer all without dialog*.

6. Maintain the ODS objects 9AIIDS01 and 9AIIDS02 in case *Update data targets from ODS object automatically* should be done for both ODS objects.



For SP0 and SP1 releases of SAP AII 2.1, you must manually apply SAP note 788512 before you activate the ODS objects.

- a. In the *Administrator Workbench*, choose *Modeling* → *InfoProvider*.
- b. In the context menu of the ODS object 9AIIDS01, choose *Change*.
- c. Choose *Settings*, and ensure that the checkbox *Update data targets from ODS object automatically* is selected. In case you change the settings, you need to activate the ODS object again.
- d. Repeat these steps for the ODS object 9AIIDS02 (if necessary).



## Setting up InfoPackages

### Use

You need to create the following InfoPackages

- InfoPackage for InfoSource AIN\_9AII\_INT: *Delta Upload (initialization) for Internal Data*
- InfoPackage for InfoSource AIN\_9AII\_INT: *Delta Upload (Delta) for internal data*.
- Optional: InfoPackage for InfoSource AIN\_9AII\_FF: *Upload for external data*



For more information on InfoPackages, see SAP Help Portal at [help.sap.com](http://help.sap.com) → *SAP NetWeaver* → *Information Integration* → *SAP Business Information Warehouse* → *Data Warehousing* → *Data Warehouse Management* → *Process Management* → *Scheduler*.

### Procedure 1: Delta Upload (Initialization) for Internal Data

You set up an InfoPackage for the InfoSource AIN\_9All\_INT, for example *Delta Upload (initialization) for Internal Data*.

1. In the *Administrator Workbench* in the *Modeling* area, choose *InfoSources*.
2. On the *InfoSources* tab page, in the context menu of the <source system>, choose *Create InfoPackage*.
3. In the *Create InfoPackage* dialog box, enter the name of the InfoPackage and choose *Enter*.
  - a. On the *Data Selection* tab page, you do not need to make any entries.
  - b. On the *Processing* tab page, select the radio button *PSA and then into Data Targets (Package by Package)*.
  - c. On the *Data Targets* tab page, select the radio button *Select Data Targets*. Ensure that the *Updating the Data Target* check box is selected for 9AllDS01.
  - d. On the *Update* tab page, select the radio button *Initialize Delta Process*. Ensure that the *Initialize Without Data Transfer* check box is not selected.
  - e. On the *Schedule* tab page, select the radio button *Start Data Load Immediately*.
4. Save your entries.

### Procedure 2: Triggering the Upload

After you have maintained all necessary Customizing settings described in this document and created some transaction data, you can trigger the following upload to get the scenario up and running.



If transaction data are not yet available, the following steps do not apply.

1. Execute the program `/AIN/BW_INIT_UPLOAD` (transaction `SE38`).
2. In the *Administrator Workbench* in the *Modeling* area, choose *InfoSources*.
3. On the *InfoSources* tab page, in the context menu of <Delta Upload (initialization) for Internal Data>, choose *Schedule*.
4. On the *Scheduler (Maintain InfoPackage)* screen, on the *Schedule* tab page, choose *Start*.
5. To ensure that the request is completed successfully go to the *Administrator Workbench* → *Modeling* → *InfoProvider*. In the context menu of the ODS object *All using internal data (9AllDS01)*, choose *Manage*. On the *Requests* tab page, you can check the results of the upload.
6. To ensure that the data is loaded correctly to the appropriate InfoCube, go to the *Administrator Workbench* → *Modeling* → *InfoProvider*. In the context menu of the InfoCube *Reporting for All using internal and external data (9All\_C01)*, choose *Manage*. On the *Requests* tab page, you can check the results of the upload.

### Procedure 3: Delta Upload (Delta) for Internal Data

You set up an InfoPackage for the InfoSource AIN\_9All\_INT, for example *Delta Upload (Delta) for internal data*.



You can only proceed with the following steps after procedures 1 and 2 are done.

1. In the *Administrator Workbench* in the *Modeling* area, choose *InfoSources*.
2. On the *InfoSources* tab page, in the context menu of the <source system>, chose *Create Info Package*.
3. In the *Create Info Package* dialog box, enter the name of the InfoPackage and choose *Enter*.
  - a. On the *Data Selection* tab page you do not need to make any entries.
  - b. On the *Processing* tab page, select the radio button *PSA and then into Data Targets (Package by Package)*.
  - c. On the *Data Targets* tab page, select the radio button *Select Data Targets*. Ensure that the *Updating the Data Target* check box is selected for 9AIIDS01.
  - d. On the *Update* tab page, select *Delta Update*.
  - e. On the *Schedule* tab page, select the button *Start Later in Background*.
  - f. Choose *Schedule* options to maintain the frequency of the delta upload.
4. Save your entries.

### Procedure 4 (Optional): Upload for External Data

You set up an InfoPackage for the InfoSource AIN\_9All\_FF, for example *Upload for external data*.

1. In the *Administrator Workbench* in the *Modeling* area, choose *InfoSources*.
2. On the *InfoSources* tab page, in the context menu of the <source system>, choose *Create InfoPackage*.
3. In the *Create InfoPackage* dialog box, enter the name of the InfoPackage and choose *Enter*.
  - a. On the *Data Selection* tab page you do not need to make any entries.
  - b. On the *External Data* tab page, select the radio button *Load External Data from Workstation*. Enter the name of the CSV-File with exact path. Ensure that the *File* is *Data file* and the radio button *File Type CSV File* is chosen. The data separator should be <,>. Ensure that the CSV file is built accordingly to the InfoSource AIN\_9All\_FF.
  - c. On the *Processing* tab page, select the radio button *PSA and then into Data Targets (Package by Package)*.
  - d. On the *Data Targets* tab page, select the radio button *Select Data Targets*. Ensure that the *Updating the Data Target* check box is selected for 9AIIDS02.
  - e. On the *Update* tab page, select *Full Update*.
  - f. On the *Schedule* tab page, select *Start Data Load Immediately*.
4. Save your entries.

## Procedure 5: Triggering the Upload

After you have maintained all necessary Customizing settings described in this document and created some data in a CSV file, you can trigger the following upload to get the scenario up and running.

1. In the *Administrator Workbench* in the *Modeling* area, choose *InfoSources*.
2. On the *InfoSources* tab page, in the context menu of *<InfoPackage Upload for External Data>*, choose *Schedule*.
3. On the *Scheduler (Maintain InfoPackage)* screen, on the *Schedule* tab page, choose *Start*.
4. To ensure that the request is completed successfully go to the *Administrator Workbench* → *Modeling* → *InfoProvider*. In the context menu of the ODS object *All using external data (9AIIIDS02)*, choose *Manage*. On the *Requests* tab page, you can check the results of the upload.
5. To ensure that the data is loaded correctly to the appropriate InfoCube, go to the *Administrator Workbench* → *Modeling* → *InfoProvider*. In the context menu of the InfoCube *Reporting for All using internal and external data (9AII\_C01)*, choose *Manage*. On the *Requests* tab page, you can check the results of the upload.



## Configuring Periodic Updates to SAP BW

### Use

You use this procedure to change the frequency of the periodic Delta Update jobs that transfer SAP All data to SAP BW.

### Procedure

1. Update the Delta Update InfoPackage to change the settings for the background job.  
In the *Administrator Workbench* in the *Modeling* area, choose *InfoSources*.
2. On the *InfoSources* tab page, in the context menu of the *Delta Update InfoPackage*, for Info source for extraction of All internal data (AIN\_9AII\_INT) choose *Schedule*.
3. On the *Schedule* tab page, ensure that the *Start Later in Background* radio button is selected.
4. Choose *Stop* to stop the current scheduled job.
5. Choose *Schedule options* to change the settings for the background job:
  - a. Choose *Period values*.
  - b. Change the period according to the requirement.
  - c. Save your entries.
  - d. Choose *Restrictions*.
  - e. Change the restrictions according to the requirement.
  - f. Save your entries and go back.
6. Save your entries.
7. Choose *Start* to release the first job with the new requirements
8. Choose *Job* and then *Execute* to check if a new job was released.  
There should be an entry for a batch job with an X in the column *Released*.





## Loading Spreadsheet Data into SAP BW

### Use

You can load EPC observations outside of SAP All into SAP BW from a comma-delimited spreadsheet. This procedure describes the spreadsheet format and the steps for loading the external data.

### Procedure

1. Each worksheet must be saved as a CSV-File with delimiter <,>.

The CSV-File must contain the following columns in the following order:

Field in DataSource	Description
/BI0/9AII_EPC_S	Electr. Product Code
/BI0/9AII_PRO_T	Product description
/BI0/9AII_LOC_I	Location identifier (= the store)
/BI0/9AII_EPCNO	Electr. Product Code
/BI0/9AII_GTIN	Glob.TradeltemNo.
/BI0/9AII_EX_TS	Execution time stamp
/BI0/9AII_RLOTY	Reader location type (= the reader)
/BI0/9AII_LO_TL	Location description
/BI0/9AII_LO_TS	Location description
/BI0/9AII_STAT	Virtual status
/BI0/9AII_SU_RF	Successful read flag

2. Delete any previously loaded external data from the PSA and ODS.

Retain previous data in the InfoCube.

Delete all existing data for ODS object 9AIIDS02 (external data).

- a. In the *Administrator Workbench* in the *Modeling* area, choose *InfoProvider*.
- b. In the context menu of the ODS object *All using external data (9AIIDS02)*, choose *Delete Data*.
- c. In dialog box *Delete InfoCube/ODS Contents*, choose *Delete Entries*.

Delete all data for PSA (external data):

- d. In the *Administrator Workbench* in the *Modeling* area, choose *PSA*.
- e. In the context menu of the InfoSource *InfoSource for extraction of All external data (AIN\_9AII\_FF)*, choose *Delete PSA Data*.
- f. In the tray *Delete All Requests*, change the *Before* date to <tomorrow> and choose *Start*.

3. Upload each external CSV-File using the *Full Update InfoPackage* for the *InfoSource for extraction of All external data (AIN\_9AII\_FF)*:

- a. In the *Administrator Workbench* in the *Modeling* area, choose *InfoSources*.
- b. Open the *Full Update InfoPackage* for the InfoSource *InfoSource for extraction of All external data (AIN\_9AII\_FF)*. Check the following points:
  - i. On the *Data Selection* tab page no entries are required.

- ii. On the *External Data* tab page, select the radio button *Load External Data from Workstation*. Enter the name of the CSV-File with its exact path. Ensure that the File is *Data file* and the radio button *File Type CSV File* is chosen. The data separator should be *<, >*.
- iii. On the *Processing* tab page, select the radio button *PSA and then into Data Targets (Package by Package)*.
- iv. On the *Data Targets* tab page, select the radio button *Select Data Targets*. Ensure that the *Updating the Data Target* check box is selected for 9AIIDS02.
- v. On the *Update* tab page, select *Full Update*.
- vi. On the *Schedule* tab page, select *Start Data Load Immediately*.
- vii. Choose *Start*.
- viii. Check if upload was successful:

To ensure that the request is completed successfully, go to the *Administrator Workbench* → *Modeling* → *InfoProvider*. In the context menu of the ODS object *All using external data (9AIIDS02)*, choose *Manage*. On the *Requests* tab page, you can check the results of the upload.

To ensure that the data is loaded correctly to the appropriate InfoCube, go to the *Administrator Workbench* → *Modeling* → *InfoProvider*. In the context menu of the InfoCube *Reporting for All using internal and external data (9AII\_C01)*, choose *Manage*. On the *Requests* tab page, you can check the results of the upload.



## Settings in SAP All Customizing

In Customizing for Auto-ID Infrastructure, you can find standard settings for configuring the *RFID-Enabled Slap&Ship Outbound Processing* business scenario. Some of these settings require individual adjustments; some of them do not necessarily need to be adjusted to configure the scenario.

The following Customizing activities for Auto-ID Infrastructure need individual adjustment.

- [Maintaining EPC Settings \[Seite 18\]](#)
- [Activating HTTP Services \[Seite 19\]](#)
- [Creating RFC Connections \[Seite 19\]](#)
- [Defining Product Hierarchies \[Seite 22\]](#)
- [Maintaining Product Settings \[Seite 23\]](#)
- [Defining Rules \[Seite 23\]](#)
- [Maintaining Print Settings \[Seite 24\]](#)



## Maintaining EPC Settings

### Use

In the standard system, the following EPC versions are delivered:

- EPC\_1.20
- EPC\_1.24

Additionally, you define one of these versions as the EPC version that is to be used and you define your company prefix.

## Procedure

1. In Customizing for SAP Auto-ID Infrastructure, choose *Basic Settings* → *Electronic Product Code (EPC) Settings* → *Define EPC Settings*.
2. In the dialog structure, choose *Active EPC Version*.
3. Choose *New Entries* and select EPC version EPC\_1.24 from the input help.
4. Save your entries.
5. In the dialog structure, choose *Company Prefix*.
6. Maintain the following sample settings:

Company Prefix	0037000
Company Index	1

7. Save your entries.



## Activating HTTP Services

### Use

You need to activate HTTP services to enable communication from SAP All to other systems (for example, between the SAP All system and external printers).

## Procedure

1. In Customizing for Auto-ID Infrastructure, choose *Basic Settings* → *Device Communication Settings* → *Activate HTTP Services*.
2. Read the instructions given under *Basic Settings* → *Device Communication Settings* → *Activate HTTP Settings for Auto-ID* and maintain the following sample settings.
3. Choose *External Aliases*,
4. Select *default\_host* and choose then *Create New External Alias*.
5. Create the new external alias `/sap/scm/ain`.
6. On the *Trg Element* tab page, select *default\_host* → *sap* → *scm* → *ain*.
7. On the *Service data* tab page, maintain the *Anonymous Logon Data* of the SAP All system.



Enter a system user such as ALEREMOTE.

8. Save your settings.



## Creating RFC Connections

### Use

You need to define RFC connections (HTTP or TCP/IP) to your tag writers.



Note that is only possible to create EPCs with a valid RFC connection in place.

## Procedure

### Define an HTTP RFC Connection

1. In Customizing for *Auto-ID Infrastructure*, choose *Basic Settings* → *Integration* → *Create RFC Connections*.
2. Choose *Create*.
3. Enter the following sample data:

Field	Value
RFC Destination	<your RFC destination, for example <i>MYDEVICE CONTROLLER</i> >
Type	G (HTTP Connection to Ext. Server)
Target Host	<IP address of the printer's device controller>
Service	<port at which the device controller receives the HTTP message, for example 8080>
Prefix	<path to application in the device controller handling the HTTP message. In case the device controller is dedicated for the printer, the path is usually "/" >

4. Save your entries.

### To Define a TCP/IP RFC Connection

#### Configuration on the ABAP Side

5. In Customizing for *Auto-ID Infrastructure*, choose *Basic Settings* → *Integration* → *Create RFC Connections*.
6. Choose *TCP/IP connections* and choose then *Create*.
7. Enter the following sample data:

Field	Value
RFC Destination	<your RFC destination, for example, <i>All_PRINT_TCPIP</i> >
Type	T (Start an external program via TCP/IP)
Description	User-defined

8. Choose *Enter*.
9. Select *Registered Server Program* for the *Activation Type*.
10. In the *Program ID* field, enter the *RFC Destination* that you just entered above (*All\_PRINT\_TCPIP*).
11. **Only if your system is set to Unicode**, choose the *Special Options* tab, then select *Unicode*.
12. Choose *Save*.

#### Define Connections for Printers

13. In Customizing for *Auto-ID Infrastructure*, choose *Basic Settings* → *Integration* → *Create RFC Connections*.

14. Choose *TCP/IP connections* and *Create*.
15. Enter the following sample data:

Field	Value
RFC Destination	<your printer destination, for example TCPIP_PRINTER >
Type	T (Start an external program via TCP/IP)
Description	User-defined

16. Choose *Enter*.
17. Select *Registered Server Program* for the *Activation Type*.
18. In the *Program ID* field, enter the *RFC Destination* that you just entered above (AII\_PRINT\_TCPIP).
19. In the field *Gateway Host*, enter the IP address of the printer.
20. in the field *Gateway Service*, enter the printer port.
21. Choose *Save*.

### Configuration on the J2EE Side

1. Start the tool Visual Administrator tool.



Visual Administrator is usually an executable program named *go.bat* found in the *j2ee/admin* directory on the machine running J2EE. The absolute path depends on the installation.

2. Go to Server -> Services -> JCo RFC Provider.
3. In the RFC destination groupbox:
  - a. In the Program ID field, enter the RFC destination name created in step 1 of section To Define a TCP/IP RFC Connection for ABAP (AII\_PRINT\_TCPIP in this case).
  - b. In the Gateway host field, enter the name of the machine running the ABAP application
  - c. In the Gateway service field enter *sapgw<system number of the machine running ABAP application>*.
  - d. In the Number of processes field, enter **20**.
4. In the *Repository* groupbox:
  - a. In the *Application server host* field, enter the name of the machine running the ABAP application.
  - b. In the *System number* field, enter the system number of the machine running ABAP application.
  - c. Enter appropriate client, language, user and password.
5. Only if your system is set to **Unicode**, select *Unicode*.
6. Choose *Set*.

### Check that the Connection is Working

1. In Customizing for Auto-ID Infrastructure, choose Basic Settings → Integration → Create RFC Connections.
2. Choose the destination (AII\_PRINT\_TCPIP in this case) from the list of TCP/IP connections.

3. Choose Test Connection. The screen displays the Connection types and TCP/IP connections.
4. Navigate to transaction SMGW.
5. Choose Goto -> Logged on clients.
6. Locate the entry for the machine running J2EE and program ID - AII\_PRINT\_TCPIP.



The program name may be truncated. Double click on the entry to see the full name.

7. The program ID name appears in the *TP name* column and the J2EE machine name appears in the *LU name* column.



Do NOT test the connection for the RFC destination of the printer (TCPIP\_PRINTER, in this case). This is created to hold information for opening the connection from the Java Stack.



## Defining Product Hierarchies

### Use

SAP Auto-ID infrastructure handles products by SAP standard functionality. In general, products are grouped into categories, and each category belongs to one hierarchy. However, all products in the Auto-ID infrastructure belong to the category AIN\_MATERIAL, and the category AIN\_MATERIAL belongs to the hierarchy AIN\_BASE. To create this category and this hierarchy, execute the following steps.



For more information about the SAP Product, see SAP Help Portal at [help.sap.com](http://help.sap.com) → SAP NetWeaver → Application Platform (SAP Web Application Server) → Cross-Application Services → SAP – Product.

### Prerequisites

You have maintained the logical system in transaction SCC4.

### Procedure

1. In Customizing for Auto-ID Infrastructure, choose *Master Data* → *Product* → *Define Product Hierarchies*.
2. Choose *Create Hierarchy* and enter the following data:

Field	Value
Hierarchy ID	AIN_BASE
Description	AIN base hierarchy

3. Save your entries.
4. Choose *Environment* → *Assign Hierarchies to Applications*.
  - a. In the dialog structure, choose *Assign Hierarchies to Applications*, then choose *New Entries* and enter the following sample data:

Application	Hierarchy ID
Product	AIN_BASE

- b. In the dialog structure, choose *Assgmt per Product Type for Application Product*, then choose *New Entry* and enter the following sample data:

Product Type	Hierarchy ID
Material	AIN_BASE

- c. Save your entries and then choose *Back*.

5. Open the hierarchy AIN\_BASE and choose *Display<->Change*.
6. Choose *Create category* and enter the following sample data:

Category ID	AIN_MATERIAL
Description	AIN Material

7. On the *Category* tab page, select the product type *Material*.
8. On the *Set Types* tab page, add the following set types:
  - o COMM\_PR\_GTIN
  - o COMM\_PR\_SHTEXT
  - o COMM\_PR\_UNIT

You need only to enter the set-type names; the remaining fields are filled automatically.

9. Save your entries.



## Maintaining Product Settings

### Use

You define output format and storage form of product IDs as well as authorization groups. These settings cannot be delivered in the standard system and have to be maintained in the project.

### Procedure

1. In Customizing for Auto-ID Infrastructure, choose *Master Data → Product → Define Output Format and Storage Form of Product IDs* and maintain the necessary settings.



Enter the length (40 is the maximum length).

2. In Customizing for Auto-ID Infrastructure, choose *Master Data → Product → Define Authorization Groups* and maintain the necessary settings.



## Defining Rules

### Use

To enable packing using fixed RFID devices (via EPC filter values) instead of mobile devices, you need to do the following for the standalone scenario. The same can be done for the integrated scenario using rule *FPP*.

### Procedure

1. In Customizing for Auto-ID Infrastructure, choose *Conditions and Rules → Rules → Define Rules*.

2. Select the rule *PSP (Pack to Stock – Packing)* and copy this rule to the rule *ZPSP (Pack to Stock – Packing)*. If a dialog box appears, choose to copy all dependent entries.
3. Save your entries.
4. Select rule *ZPSP*.
5. In the dialog structure, choose *Rule activities*.
6. Select the activity *DEVICE\_VALIDATE* and choose then *Activity parameters*.
7. Enter the parameter *HIERARCHY\_BY\_EPC\_FILTER* and save your entries.



## Maintaining Print Settings

You need to maintain the following in Customizing for Auto-ID Infrastructure under *Basic Settings* → *Printing*:

### 8. Assign format to printer and profile

Generally, label printers store a format for the label that is to be printed. This IMG activity allows you to assign a label format to a printer device group and field list profile. The assigned format, together with the values in the profile, are included in the print command sent to the selected printer.

### 9. Assign profile for printing

In this IMG activity, you assign a profile to a set of EPCs defined by Global Trade Identification Number (GTIN), filter value, or both GTIN and filter value. The profile determines the list of fields provided when the system writes or prints the selected EPCs.

The GTIN field can be blank, "\*", or a valid GTIN. Blank implies an EPC of type SSCC. "\*" implies all products and an EPC of type SGTIN. A specific GTIN refers to EPCs of type SGTIN for the selected GTIN.

The *filter value* indicates the container type (for example, case or pallet).



For further information, refer to the IMG activity documentation under *Auto-ID Infrastructure* → *Basic Settings* → *Print Settings*.



## Configuring Label Printing

### Use

- You need to maintain print settings to enable label printing.

### Prerequisites

You have done the following regarding label design:

10. You have designed the label formats using software provided by printer vendors.
11. You store those formats on your printer server or application server.
12. You have uploaded those label formats to the appropriate printers.

### Procedure

#### Data Profile

1. In Customizing for Auto-ID Infrastructure, choose *Basic Settings* → *Data Profile*.



2. Define the *elements* that will be sent to the printer and printed on the labels.
3. Define the *element sets* and include the *elements* that will be used for:
  - Document maintenance for the automated scenario (no human intervention)
  - Document maintenance for semi-automated (some human intervention) and manual (no automation) scenarios
  - Each label format that will be used for printing
4. Define the *profile* for label printing (profile type *Print Label and Writing E*) and include the appropriate *element set* with the usage 1 (*Write/Print EPC*).
5. In the profile *SAP\_DOCUMENT\_CONTEXT\_PROFILE* (profile type *Document context maintenance*), assign the *element sets* you created for document maintenance based on following usages:
  - a. 04 - Semi-Automated & Manual Scenario
  - b. 05 - Automated Scenario



Refer to the IMG activity documentation for details on maintaining these entries.

### Print Settings

1. In Customizing for Auto-ID Infrastructure under *Basic Settings* → *Print Settings* → *Assign Profile for Printing*, assign the print profile to the GTIN and *filter value*.
2. In Customizing for Auto-ID Infrastructure under *Basic Settings* → *Print Settings* → *Assign format to printer and profile*, add entries determining formats that will be used during the label printing. Based on the print profile and printer, different label formats are selected during the label printing.



Refer to the IMG activity documentation for details on maintaining these entries.

### Rule Configuration

- **Mobile User Interface**

If label printing is to be initiated from the mobile user interface, you must define conditions for the mobile messages as follows:

In Customizing for *Auto-ID Infrastructure* under *Conditions and Rules* → *Conditions and Message Types* → *Define Conditions for Mobile Messages*, add an entry for business process *Write / Print*, command *DO*, and rule *TCPR*.

This rule is triggered from the mobile user interface and desktop user interface for *Tag Commissioning*. Rule *TCPR* is the SAP delivered rule for tag commissioning.



We recommend that you copy this rule and modify it if necessary.

- **RFID Device User Interface**

If label printing is to be initiated from the RFID device user interface, you must define conditions for the RFID device messages as follows:

In Customizing for *Auto-ID Infrastructure* under *Conditions and Rules* → *Conditions and Message Types* → *Define Conditions for Fixed Device Messages*, add an entry as follows:

Field	Value
Location	Your device's location

Location type	Your device's location type
Command	PRNT
Rule	TCPR

- **TCPR Rule**

This rule is triggered when a RFID device message is received.



We recommend that you copy this rule and modify it if necessary.

In the *TCPR* rule, the activity *DEVICE\_CREATE\_EPC\_TO\_WRITE* plays a very important role when the message (and the document assigned to the device) does not contain GTIN or SSCC values. The following parameter values result in different behaviors:

#### TCPR Rule Dependencies

Parameter	If the value is	Behavior
EPC_FILTER_VALUE EPC_TYPE	3 'Case' SGTIN-64 or SGTIN-96	The activity will generate an EPC for case SGTIN
EPC_FILTER_VALUE EPC_TYPE	4 'Pallet' SSCC-64 or SSCC-96	The activity will generate an EPC for pallet SSCC

#### Device Communications Settings

Activate HTTP Services for SAP All as described in [Activating HTTP Services \[Seite 19\]](#).

#### Device Configuration

In this IMG activity you define the technical parameters for the TCP/IP connections which SAP All uses for communicating with other systems. Printer Commands can be sent via HTTP or TCP/IP.

A TCP/IP connection is a kind of RFC destination, and is maintained in Customizing for Auto-ID Infrastructure under *Basic Settings* → *Integration* → *Create RFC Connections*. For more information, see [Creating RFC Connections \[Seite 19\]](#).

#### Defining HTTP Connections

Refer to the IMG activity documentation for setting up HTTP connections.

#### Defining TCP/IP Connections

1. In Customizing for *Auto-ID Infrastructure*, choose *Basic Settings* → *Integration* → *Create RFC Connections*.
2. In the RFC Destinations tree, open the branch *TCP/IP Connections*.
3. Choose *Create* and do the following:
  - a. Enter a destination name and description.
  - b. Select connection type  $\mathbb{T}$  – TCP/IP Connection.

- c. Set *Activation Type* to *Registered Server Program*.
  - d. Set *Program ID*: *All\_PRINT\_TCPIP*.
4. Go back to the *RFC Destination Tree*, and create following, if not existing:
    - a. Enter a destination name as *All\_PRINT\_TCPIP*.
    - b. Select *connection type*  $\Gamma$  – TCP/IP Connection.
    - c. Set *Activation Type* to *Registered Server Program*.
    - d. Set *Program ID*: *All\_PRINT\_TCPIP*.



Also use the above configured RFC destination in the device controller maintenance as described in [Maintaining Device Settings \[Seite 30\]](#).



## Master Data

The following section describes the set-up of master data.



Note that the set-up of the following master data is described with reference to the Web browser transactions:

- Product
- GTIN Number Range
- SSCC Number Range
- Location
- Business Partner

The procedures may differ slightly when you use the Desktop transactions instead.



## Defining Units of Measurement

1. In Customizing for SAP NetWeaver, choose *General Settings* → *Check Units of Measurement* → *ISO Codes*.
2. Maintain the necessary settings for the ISO Code *CSE (Case)* and save your entries.
3. Choose then *General Settings* → *Check Units of Measurement* → *Units of Measurement*.
4. Choose *Unit of Measurement*, then choose *Create* and maintain the following settings for the ISO Code *CSE (Case)*:

Field	Value
Commercial	CSE
Technical	CSE
Measurement Unit Text	Case CSE
ISO Code	CSE
Primary code	<checked>

Commercial meas. unit	<checked>
-----------------------	-----------

5. Save your entries.



## Defining Products

### Procedure

1. In the Auto-ID Cockpit, choose *Master Data* → *Product*.
2. In the *Master Data: Product* screen, choose *Change*.
3. Choose *Create* and enter the following sample data:

Product	Description	Base Unit of Measure	Base GTIN
RFID_MAT1	RFID Material 1	EA	00037000657330

4. Save your entries.
5. Select the newly defined product RFID\_MAT1.
6. In the Unit of Measure group box, choose *Create* and enter the following sample data:

Unit of Measure	GTIN	Numerator	Denominator
CSE	00037000657331	10	1

7. Repeat steps 1 to 4 for the following product:

Product	Description	Base Unit of Measure	Base GTIN
RFID_MAT2	RFID Material 2	EA	00037000657332

#### Unit of Measure

Unit of Measure	GTIN	Numerator	Denominator
CSE	00037000657333	25	1

8. Save your entries.



## Defining GTIN Number Ranges

### Procedure

1. In the Auto-ID Cockpit, choose *Master Data* → *GTIN Number Range*.
2. In the *Master Data: GTIN Number Range* screen, choose *Change*.
3. Choose *Create* and enter the following sample data for the newly defined GTINs.
4. For more information about products and GTINs, see this document under *Master Data* → [Defining Products \[Seite 28\]](#).

GTIN	Processing Sequence	EPC Type	Active	From Number	To Number
00037000657330	1	SGTIN-96	<checked>	1	999
00037000657331	1	SGTIN-96	<checked>	1000	1999
00037000657332	1	SGTIN-96	<checked>	2000	2999

00037000657333	1	SGTIN-96	<checked>	3000	3999
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5. Save your entries.



## Defining SSCC Number Ranges

### Procedure

1. In the Auto-ID Cockpit, choose *Master Data* → *SSCC Number Range*.
2. In the *Master Data: SSCC Number Range* screen, choose *Change*.
3. Choose *Create* and enter the following sample data:

Company Prefix	EPC Type	Processing Sequence	From Number	To Number	Active
0037000	SSCC-96	1	1	999	<checked>

4. Save your entries.



## Defining Locations

### Prerequisites

You have assigned your company prefix to the SSCC number ranges (see [Defining SSCC Number Ranges \[Seite 29\]](#)).

### Procedure

1. In the Auto-ID Cockpit, choose *Master Data* → *Location*.
2. In the *Master Data: Location* screen, choose *Change*.
3. Choose *Create* and enter the following sample data:

Location	Location Type	Location Status	Company Prefix	Description
WRITE_STATION	Door	Available	<your company prefix, for example 0037000>	Incoming
PACK_STATION	Warehouse	Available	<your company prefix, for example 0037000>	Warehouse
LOADING_GATE	Door	Available	<your company prefix, for example 0037000>	Door

4. Save your entries.



## Defining Business Partners

### Prerequisites

In Customizing for *Cross-Application Components*, you have defined the necessary ship-to addresses under *SAP Business Partner* → *Business Partner* → *Basic Settings* → *Address Determination* → *Define Address Types*.

For testing purposes you can define the following ship-to address:

Addr. Type	Short name	Name	Several uses
SHIP_TO	Ship-to	Ship-to address	<checked>

### Procedure

1. In the Auto-ID Cockpit, choose *Master Data* → *Business Partner*.
2. In the *Master Data: Business Partner* screen, choose *Change*.
3. Choose *Create* and enter the necessary data for your business partners.
4. Save your entries.



For more information about the SAP Business Partner, see SAP Help Portal at [help.sap.com](http://help.sap.com) → *SAP NetWeaver* → *Application Platform (SAP Web Application Server)* → *SAP Business Partner (SAP BP)*.



## Maintaining Device Settings

### Use

In standard system, the following Customizing settings are delivered:

- Device controller types
- Business roles of device groups

In addition, you need to maintain the following device settings:

- Device controller
- Device groups
- Devices

### Prerequisites

- You have defined an RFC connection for the tag writer.

For more information, see this document under *Settings in SAP All Customizing* → [Creating RFC Connections \[Seite 19\]](#).

- You have defined locations.

For more information, see this document under *Master Data* → [Defining Locations \[Seite 29\]](#).

### Procedure

1. On the *SAP Easy Access* screen in SAP All, choose *Auto-ID Infrastructure* → *Master Data* → *RFID Device* (transaction code `/AIN/DEVICE`).

2. Choose *Start selection*.
3. In the *RFID Device Controller* group box, choose *Display<->Change* and then choose *Insert Row*.
4. Maintain the following sample data:

Device Controller ID	Device Controller Description	DC Type Description	RFC Destination
<your device controller ID>	<your description>	PML for Fixed Devices and Mobile Devices	<enter the RFC destination you have defined for your tag writer, for example All>

5. Select the newly created RFID device controller and choose *Show Device Groups*.



If it is not possible to choose *Show Device Groups*, exit the transaction and call it then up once again.

6. In the *RFID Device Group* group box, choose *Display<->Change* and then choose *Insert Row*.

7. Maintain the following sample data:

Device Group ID	Device Group Description	Business Role of a Device Group	Location Type	Location ID
Write	Writer	Write/Print	Door	WRITE_STATION
Pack	Pack Station	Pack	Warehouse	PACK_STATION
Load	Load Gate	Load	Door	LOADING_GATE
<Mobile>	<your description>	All Roles	Default	<*>



Use business role *All Roles* for mobile readers. The business roles determine which device groups you see in the mobile user interface when assigning a document.



The location ID is used in the conditions for fixed reader messages to determine which rule will be triggered. For more information, see this document under *Conditions and Message Types* → [Defining Conditions for Fixed Reader Messages \[Seite 32\]](#).

8. Select the newly created RFID device group and choose *Show RFID Device*.
9. In the *RFID Device* group box, choose *Display<->Change* and then choose *Insert Row*.
10. Maintain your RFID Devices.  
Enter at least one RFID device for each device group. To do so, enter an ID and a description.
11. Save your entries.



## Conditions and Message Types

The following section describes the set-up of conditions and message types.



## Enabling Application Log and Monitoring

### Procedure

1. In Customizing for *Auto-ID Infrastructure*, choose *Conditions and Rules* → *Conditions and Message Types* → *Define Condition Types, Application Log and Monitoring per message type*.
2. In the dialog structure, choose *Enable Application log for Msg. types*.
3. Ensure that the application log is enabled for all used message types.
4. In the dialog structure, choose *CCMS Alert for Msg. types*.
5. Enter the message type 01 (*Mobile Message*).



## Defining Conditions for Fixed Device Messages

### Use

In the standard system, Customizing settings for mobile message conditions and backend message conditions are delivered. Additionally, you need to define conditions for fixed reader messages.

### Prerequisites

You must have defined locations. For more information, see this document under *Master Data* → [Defining Locations \[Seite 29\]](#).

### Procedure

1. In Customizing for Auto-ID Infrastructure, choose *Conditions and Rules* → *Conditions* → *Define Conditions for Fixed Reader Messages*.
2. Choose New Entries and maintain the following sample settings.

Location ID	Location Type	Command	Processing Sequence	Rule ID	Exit indicator
PACK_STATION	Warehouse	IN	1	PSP	<unchecked>
PACK_STATION	Warehouse	OUT	1	PSPU	<unchecked>
LOADING_GATE	Door	IN	1	PSL	<unchecked>
LOADING_GATE	Door	OUT	1	PSLU	<unchecked>
WRITE_STATION	Door	PRNT	1	TCPR	<unchecked>

3. Save your entries.



## User Data Profiles

User Data Profiles include the following:



## User Data Profiles

*Profiles* and *element sets* are used in various Auto-ID applications. For example, they determine which fields are to be printed on an RFID label, and which data a user can enter when creating a document.

*Profile types* control which applications use this profile. New *profile names* must be in the customer namespace (that is, they cannot start with *s*).

For each profile, you can assign at most one *element set* to each *element use*.

## Element Sets that are Assigned to the User Data Profiles

An *element set* contains *elements* of a single type. The purpose of defining element sets is to have a mechanism to allow the user to store a collection of similar elements. For example: The element set that has a collection of elements of type *fields* will contain the list of fields. This list of fields can be used for label printing or document maintenance. *Elements* and *element sets* must conform to the following rules:

- New element names must be in the customer namespace (that is, they must start with *x* or *z*).
- New element names must be added to the element set *SAP\_ALL\_Fields*.
- New element set names must be in the customer namespace (that is, they cannot start with *s*).
- An element set may only contain elements belonging to its associated parent element set.



For further information on maintenance of *user data profiles* and *element sets*, refer to the IMG documentation under *Auto ID Infrastructure* → *Basic Settings* → *Data Profile*.