



# SAP LIS SIS Training Documentation

Developed by consultant Roderick Collins

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## **Introduction**

This document describes the comprehensive process for creating Logistics Information System and Sales Information System Info Structures. This document is written for a trainee that already has SAP R/3 configuration knowledge as well as business transactional experience in the system.

This training document was developed by consultant Roderick Collins.

## Requirements Definition

The first step in building the Information Structure is to determine the business requirements, the specific purpose for collecting the data.

1. What data and /or activities do we want to capture?

For example:

All Sales Orders, Purchase Orders, Inventory Movements, Storage Bin balances, etc.

Are there any specific order types to include or exclude?

2. a. Identify the reporting hierarchy?

For example, see Chart 1 and Chart 2 below

Chart 1

Info Structure Hierarchy				
Plant				
	Division			
		Product Hierarchy		
			Material Type	
				Material
				Storage Location

b. Do you want to exclude any Plants, Divisions, Material Types, etc. from the hierarchy?

3. Does the data need to be captured in specific time periods?

For example: Monthly, Weekly, Daily, or Financial Posting period

## Chart 2: Demand Info Structures Layout

### Purchasing Info Structure

#### Characteristics

1.	Plant	All
2.	Div	All
3.	Movement type	All
4.	Hierarchy (18 characters)	All
5.	Material Type	FERT, HALB, HAWA, UNBW

6.	Material	All
7.	Transaction time	From transaction

### Key Figures

1.	Quantity	
2.	Standard price	

### Comments

1.	Because the transactional demand data required for this Info Structure is unique at the plant level, storage location will not be a characteristic.
2.	Inventory for material types FERT, HALB, HAWA, UNBW will be collected. All other material type inventory will be filtered out and not collected.
3.	This info structure will use a periodicity of 'daily' where the day is defined as the posting date (BUDAT).
4.	Determine the number of days/months to retain data.
5.	Determine archiving procedure.

## Step 1 Creating Field Catalogues, Transaction Code MC18

The Field Catalogue is a collection of fields from the SAP system. This catalogue is then used when creating the Info Structure. Therefore a Field Catalogue must exist, or be created, and contain the fields that you will need when building the Info Structure. (For your Info Structure a suitable Field Catalogue may already exist and this step can be skipped.)

```
Transaction SPRO
Press Enterprise IMG
>Logistics – General
>>Logistics Information System
>>>Logistics Data Warehouse
>>>>Data Basis
>>>>>Field catalogues
>>>>>>Maintain self-defined field catalogues
```

You can create a catalogue of the individual key figures that you want inside it. The Key figures that you select are from predefined lists.

---

Also, after completing the update rules you may determine that a field needs to be added directly to a SAP table. This requires a Access Key. Access Key is a code generated by SAP to track enhancements and modifications to tables and programs per installation.

To modify the table go to SE11

Enter Table Name

Select the change button

Add the field that you need in this table. You may also need a reference field and reference table. If these are needed you can use the same reference field and reference table that this field uses in another table. Find out where else this field is used.

To find where fields are used, go to

Transaction SE80

Select radio button Dictionary Objects

Select radio button Edit

Select radio button Data Element

Enter the field or data element name

Select the where-Used Icon button from the menu bar

A Where-Used List Data Element pop-up box will appear

Select the Table, Structures, Fields, Programs, Interfaces, etc. that you want the system to search throughout and find where this Data Element is used.

Click Enter or Execute in the background

## **Step 2 Creating Info Structures, Transaction Code MC21**

Transaction SPRO

Press Enterprise IMG

>Logistics – General

>>Logistics Information System

>>>Logistics Data Warehouse

>>>>Data Basis

>>>>>Information Structures

>>>>>>Maintain self-defined information structures

Implementation Guide for R/3 Customizing (IMG)

- Global Settings
- Enterprise Structure
- Cross-Application Components
- Financial Accounting
- Treasury
- Controlling
- Investment Management
- Enterprise Controlling
- Real Estate Management
- Logistics - General
  - Logistics Basic Data: Material Master Assortment
  - Retail Pricing
  - Logistics Basic Data: Business Partners
  - Batch Management
  - Logistics Basic Data: Product Catalog
  - IAC Product Catalog and Online Store
  - Variant Configuration
  - Engineering Change Management
  - Logistics Information System (LIS)
    - Logistics Data Warehouse
      - Data Basis

- Data Basis
  - Applications
  - LIS Inbound Interface for External Data
  - Field Catalogs
  - Information Structures
    - Maintain self-defined information structures
    - Display generating log for information structures



Info structure    ?    ?

Application    ?

**Attributes**

Type of IS     Standard

Plng. possible

**Copy from**

Info structure    [ ]

Enter an available Info Structure number (number range is from S500 thru S999).  
Enter the application that this Info Structure will use.











**Attributes section**





Enter the type of Info Structure

- Standard (most common, flexible planning can be utilized with this type)
- Without Period Unit (flexible planning is not possible with this type because data is not categorized into periods)
- Without Updating

**Create Info Structure: Fields**

Info structure Edit Goto Utilities Environment System Help

    General features...

Info struct.	<input type="text" value="S559"/>	<input type="text" value="Product Hierarchy for Frcsting"/>	<input type="text" value="New"/>
Application	<input type="text" value="41"/>	Logistics General	<input type="text" value="Not saved"/>
Type of info str.	<input type="checkbox"/>	Standard	
Plng. possible	<input checked="" type="checkbox"/>		

Characteristics

Key figures

Unit Sum Fix

**Create Info Structure: Fields**  
Info structure Edit Goto Utilities Er

General features...

Info struct. S559  
Application 41  
Type of info str.   
Plng. possible

Characteristics

Choose charact...

**Chosen Characteristics: Sequence**

**Selection List**

Chosen field catalog

**Addnl characteristics: general**

**Field catalog fields**

- Component
- Reporting point

Switch display

**Field catalogs**

- Addnl characteristics: general
- Catalog for stock
- Charact.: inspection lot
- Charact.: service notification
- Characteristics: Warehouse Mgmt
- Characteristics (INVCO)
- Chars for physical inventory
- Costs
- Date (Inventory Controlling)
- Date fields: Warehouse Mgmt
- Dates for physical inventory
- Equipment - characteristics
- Errors
- Field Catalog for Market Hier
- Fields for hier. plngng PURCHIS
- Functional location - charact.
- General - date log
- Index: subsequent settlement
- Indiv.records: inspection lot
- Inspection results, chars

Switch display

Copy Selection Copy + close Copy

**Display Info Structure: Fields**

Info structure Edit Goto Utilities Environment System Help

General features...

Info struct: S555 Forecast Planning/Mrkt Hierchy Revised  
 Application: 01 Sales and Distribution Saved  
 Type of info str.:  Standard  
 Plng. possible:

Characteristics	Key figures	Unit	Sum	Fix
Company code	Requested deliv.date	00	<input type="checkbox"/>	<input type="checkbox"/>
Industry	Gross orders	32	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Material group 4	Sales	01	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sales district	Order quantity	03	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Customer group 4	Net value	31	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sold-to party	Days' supply	00	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Material	Target days' supply	00	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Plant				

Choose charact... Choose key figures...

Notes:

1-After creating the Info Structure save it and press the Generate button (this will make the info structure active).

2-The 'Plng. Possible' check box is an Indicator that determines if an information structure is relevant in flexible planning.

3-The number of Characteristics that you can assign is limited to nine (9). The Characteristics will make up your hierarchy, your structure for reporting or forecasting.

4-Assign the key figures. The key figures will be the headers for the data that you are collecting. If using the Info Structure for Sales & Operations Planning, the Key Figures will also be the Row Label Headers in the Planning Table. When you view data in the

Planning Table it will be listed by Key Figure in a row format. The Key Figure will be the header of that row.

5-The Unit field after the key figure is used for determining in which units it will be updated. For example, base unit or sales unit of measure, etc.

6-The Sum field, when checked will enable the records for this key figure to be aggregated.

7-The Fix field, when checked will enable you to fix the values in the flexible planning, planning table.

You may want to change the listed name of the characteristics in your hierarchy and can do so. For example, one of your characteristic names may be Material, but you want to re-label it SKU. In order to make this change you will need to create a custom reference table in transaction SE11.

### Formula Routine Number 919, 'GDT' Delivery Qty

FORM MCV2\_919.

```
*{ INSERT 1
DATA: ZZ_VBELN LIKE VBAK-VBELN.
DATA: ZZ_POSNR LIKE VBAP-POSNR.
DATA: ZZ_OAUME LIKE S678-OAUME.
DATA: ZZ_VBAP LIKE VBAP.
```

FORMULA\_VALUE = MCLIPS-LFIMG.

```
CHECK MCLIPS-SUPKZ = '2'.
CHECK MCINF EQ 'S678'.
IF ( MCLIKP-VBTYP EQ 'J'
OR MCLIKP-VBTYP EQ 'T' )
AND MCVBUP-WBSTA EQ 'C'.
SELECT SINGLE AUART INTO MCVBAK-AUART
FROM VBAK
WHERE VBELN EQ MCLIPS-VGBEL.
SELECT SINGLE * FROM VBAP
INTO ZZ_VBAP
WHERE VBELN EQ MCLIPS-VGBEL
AND POSNR EQ MCLIPS-VGPOS.
MCVBAP-ERDAT = ZZ_VBAP-ERDAT.
IF MCLIPS-KCMENG IS INITIAL.
FORMULA_VALUE = MCLIPS-LFIMG.
ELSE.
```

---

```
IF ZZ_VBAP-VRKME EQ ZZ_VBAP-MEINS.
  FORMULA_VALUE = MCLIPS-KCMENG.
ELSE.
  FORMULA_VALUE = MCLIPS-KCMENG * ZZ_VBAP-UMVKN / ZZ_VBAP-
UMVKZ.
ENDIF.
ENDIF.
SELECT SINGLE OAUME FROM S678 INTO ZZ_OAUME
  WHERE SSOUR EQ SPACE
    AND VRSIO EQ MCONTROL-VRSIO
    AND SPMON EQ '000000'
    AND SPTAG EQ MCVBAP-ERDAT
    AND SPWOC EQ '000000'
    AND SPBUP EQ '000000'
    AND VKORG EQ MCLIKP-VKORG
    AND SPART EQ MCLIPS-SPART
    AND PRODH EQ MCLIPS-PRODH
    AND KUNNR EQ MCLIKP-KUNAG
    AND WERKS EQ MCLIPS-WERKS
    AND AUART EQ MCVBAK-AUART
    AND VBELN EQ MCLIPS-VGBEL
    AND POSNR EQ MCLIPS-VGPOS
    AND MATNR EQ MCLIPS-MATNR.
IF SY-SUBRC EQ 0.
  ZZ_OAUME = ZZ_OAUME - FORMULA_VALUE.
  IF ZZ_OAUME LT 0.
    ZZ_OAUME = 0.
  ENDIF.
ENDIF.
UPDATE S678 SET OAUME = ZZ_OAUME
  LFIMG = LFIMG + FORMULA_VALUE
  WHERE SSOUR EQ SPACE
    AND VRSIO EQ MCONTROL-VRSIO
    AND SPMON EQ '000000'
    AND SPTAG EQ MCVBAP-ERDAT
    AND SPWOC EQ '000000'
    AND SPBUP EQ '000000'
    AND VKORG EQ MCLIKP-VKORG
    AND SPART EQ MCLIPS-SPART
    AND PRODH EQ MCLIPS-PRODH
    AND KUNNR EQ MCLIKP-KUNAG
    AND WERKS EQ MCLIPS-WERKS
    AND AUART EQ MCVBAK-AUART
    AND VBELN EQ MCLIPS-VGBEL
```

---

```
        AND POSNR EQ MCLIPS-VGPOS
        AND MATNR EQ MCLIPS-MATNR.
ENDIF.
RETURNCODE = 4.

*} INSERT
ENDFORM.
```

### Formula Routine Number 920, GDT Open Order Quantity

```
FORM MCV2_920.
*{ INSERT                                1
  IF MCVBAP-UPDKZ CA 'DL'.
    FORMULA_VALUE = 0.
    RETURNCODE = 0.
    EXIT.
  ENDIF.
  FORMULA_VALUE = MCVBAP-KWMENG.
  CHECK MCINF EQ 'S678'.
  SELECT SINGLE LFIMG
    INTO MCLIPS-LFIMG
    FROM S678
    WHERE SSOUR EQ SPACE
      AND VRSIO EQ MCCONTROL-VRSIO
      AND SPMON EQ '000000'
      AND SPTAG EQ MCVBAP-ERDAT
      AND SPWOC EQ '000000'
      AND SPBUP EQ '000000'
      AND VKORG EQ MCVBAK-VKORG
      AND SPART EQ MCVBAP-SPART
      AND PRODH EQ MCVBAP-PRODH
      AND KUNNR EQ MCVBAK-KUNNR
      AND WERKS EQ MCVBAP-WERKS
      AND AUART EQ MCVBAK-AUART
      AND VBELN EQ MCVBAP-VBELN
      AND POSNR EQ MCVBAP-POSNR
      AND MATNR EQ MCVBAP-MATNR.
  IF SY-SUBRC EQ 0 AND MCLIPS-LFIMG GT 0.
    FORMULA_VALUE = MCVBAP-KWMENG - MCLIPS-LFIMG.
  ENDIF.
  IF FORMULA_VALUE LT 0.
    FORMULA_VALUE = 0.
  ENDIF.
  RETURNCODE = 0.
```

---

\*} INSERT  
ENDFORM.



---

## ***Info Structure S679 Purchase Requisitions and Purchase Orders***

### **Requirement Routine Number 902, Purchase Organization and Material Type Requirements**

FORM MCE1\_902.

\*{ INSERT 1

RETURNCODE = 4.

CHECK MCEKKO-EKORG NE 'PO04'.

CHECK MCEKPO-MTART = 'FERT' OR

MCEKPO-MTART = 'HALB' OR

MCEKPO-MTART = 'UNBW' OR

MCEKPO-MTART = 'HAWA'.

RETURNCODE = 0.

\*} INSERT

ENDFORM.

### **Formula Routine Number 904 Open Purchase Order Quantity**

FORM MCE2\_904.

\*{ INSERT 1

IF MCEKET-WAMNG GT 0.

FORMULA\_VALUE = MCEKET-MENGE - MCEKET-WAMNG.

\* FORMULA\_VALUE = order quantity – Issued Quantity.

ELSE.

FORMULA\_VALUE = MCEKET-MENGE - MCEKET-WEMNG.

\* FORMULA\_VALUE = order quantity – Quantity of goods received

ENDIF.

RETURNCODE = 0.

\*} INSERT

ENDFORM.

### **Formula Routine Number 905, Goods Receipts Open Calculations**

FORM MCE2\_905.

\*{ INSERT 1

---

DATA: ZZ\_OBMNG LIKE S679-OBMNG. "open

FORMULA\_VALUE = MCEKET-WEMNG. "received  
CHECK MCEKET-SUPKZ EQ '2'.  
CHECK MCINF EQ 'S679'.  
IF MCEKET-WAMNG GT 0.  
ZZ\_OBMNG = MCEKET-MENGE - MCEKET-WAMNG.  
ELSE.  
ZZ\_OBMNG = MCEKET-MENGE - MCEKET-WEMNG.  
ENDIF.  
IF ZZ\_OBMNG LT 0.  
ZZ\_OBMNG = 0.  
ENDIF.  
UPDATE S679  
SET OBMNG = ZZ\_OBMNG  
WHERE SSOUR EQ SPACE  
AND VRSIO EQ MCCONTROL-VRSIO  
AND SPMON EQ '000000'  
AND SPTAG EQ MCEKKO-BEDAT  
AND SPWOC EQ '000000'  
AND SPBUP EQ '000000'  
AND SPART EQ MCEKPO-SPART  
AND PRDHA EQ MCEKPO-PRDHA  
AND WERKS EQ MCEKPO-WERKS  
AND LIFNR EQ MCEKKO-LIFNR  
AND BSART EQ MCEKKO-BSART  
AND EBELN EQ MCEKPO-EBELN  
AND EBELP EQ MCEKPO-EBELP  
AND MATNR EQ MCEKPO-MATNR.  
RETURNCODE = 0.  
\*} INSERT  
ENDFORM.

---

## Formula Routine Number 906, Goods Issue Open Calculations

FORM MCE2\_906.

\*{

DATA: ZZ\_OBMNG LIKE S679-OBMNG. "open

FORMULA\_VALUE = MCEKET-WAMNG. "Issued

CHECK MCEKET-SUPKZ EQ '2'.

CHECK MCINF EQ 'S679'.

IF MCEKET-WAMNG GT 0.

ZZ\_OBMNG = MCEKET-MENGE - MCEKET-WAMNG.

ELSE.

ZZ\_OBMNG = MCEKET-MENGE - MCEKET-WEMNG.

ENDIF.

IF ZZ\_OBMNG LT 0.

ZZ\_OBMNG = 0.

ENDIF.

UPDATE S679

SET OBMNG = ZZ\_OBMNG

WHERE SSOUR EQ SPACE

AND VRSIO EQ MCCONTROL-VRSIO

AND SPMON EQ '000000'

AND SPTAG EQ MCEKKO-BEDAT

AND SPWOC EQ '000000'

AND SPBUP EQ '000000'

AND SPART EQ MCEKPO-SPART

AND PRDHA EQ MCEKPO-PRDHA

AND WERKS EQ MCEKPO-WERKS

AND LIFNR EQ MCEKKO-LIFNR

AND BSART EQ MCEKKO-BSART

AND EBELN EQ MCEKPO-EBELN

AND EBELP EQ MCEKPO-EBELP

AND MATNR EQ MCEKPO-MATNR.

RETURNCODE = 0.

\*} INSERT

ENDFORM.