



Production Planning

Lesson 11: Classification

Lesson Objectives



Objectives -On successful completion of this training module, you should have:

- Understood the basics of Classification
- Purpose , use and challenge of Classification
- Important steps and Example for Classification

Training Agenda



- Purpose And Use Of Classification
- Terminology
- Objective Type And Class Type
- Classes, Class Status And Class Hierarchy
- Characteristics

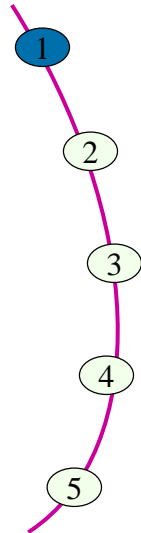
Training Agenda



- Values
- Configuration
- Master Data
- Assignments Of Objects
- Examples
- Classification in Purchase Order Release Procedure
- Transport Classes And Characteristics.

Add instructor notes here.

Classification



PrepareMe

TellMe

ShowMe

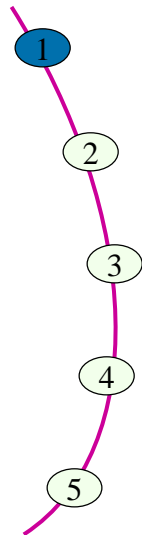
LetMe

HelpMe

© 2018 Capgemini. All rights reserved.

5

Classification



PrepareMe

TellMe

ShowMe

LetMe

HelpMe

© 2018 Capgemini. All rights reserved.

6

Purpose



Classification is the process of assigning objects to classes and using the characteristics of the class to assign values to these objects. Classification helps in maintaining values to different characteristics under one class

Example:

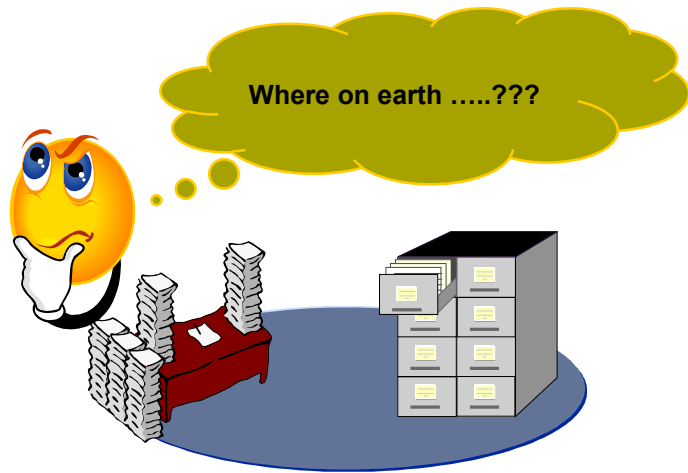
A Lancer Car has different Colors, Power, Capacity, Height.
Here Car forms the Class and the Colors, Power, Capacity, Height forms its Characteristics.

© 2018 Capgemini. All rights reserved.

7

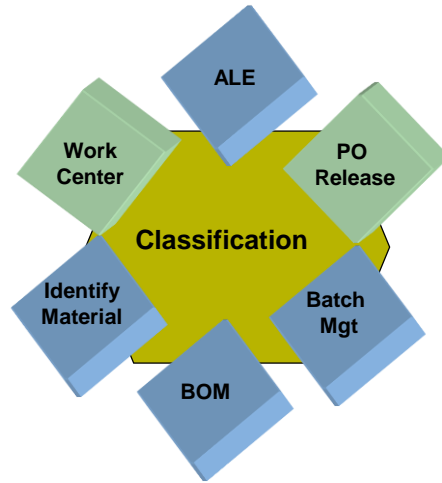
Add the notes here.

Purpose



© 2018 Capgemini. All rights reserved.

8

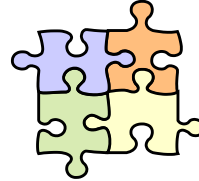


Add instructor notes here.

Challenges



- Classification System should be simple and at the same time cover all applicable Master Data and Documents.



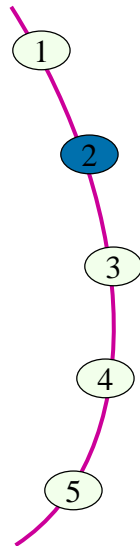
Different dimensional systems (metric MKS vs. English FPS) used across the world. This has a major impact on material classification based on characteristics which are measured in different dimensional systems (such as centimeters instead of inches) across the organization. This would effect material searches and would lead to having more than one material number for the same component.

© 2018 Capgemini. All rights reserved.

10

Add the notes here.

Classification



PrepareMe

TellMe

ShowMe

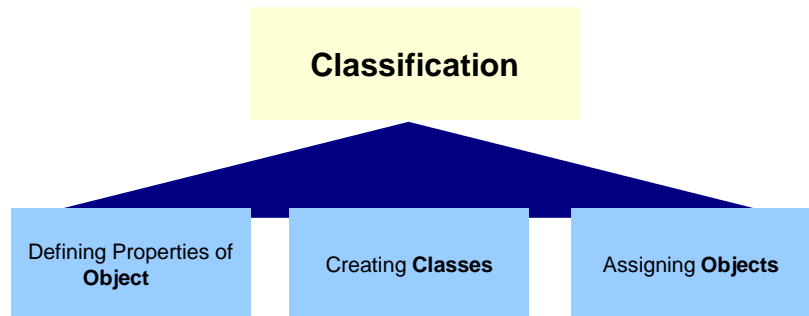
LetMe

HelpMe

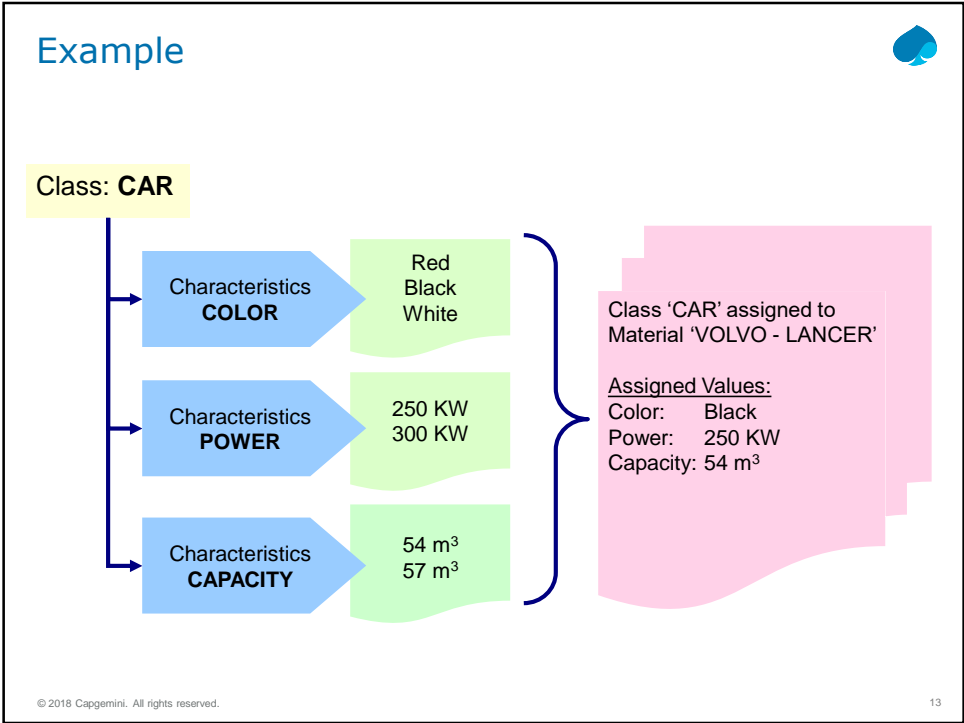
© 2018 Capgemini. All rights reserved.

11

Important Steps



Add instructor notes here.



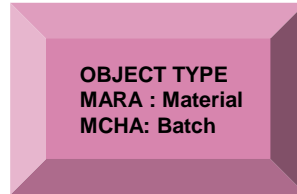
Add the notes here.

Terminology



| | |
|-----------------------|--|
| Object type | The object type is inferred from a classifiable table. |
| Object | An object is a classifiable unit. |
| Class type | A class type is a top-level unit of control for classes. |
| Class | A class groups similar objects together. |
| Characteristic | A characteristic describes properties of an object. |
| Value | A value is a specific option for a characteristic. |

Object Type

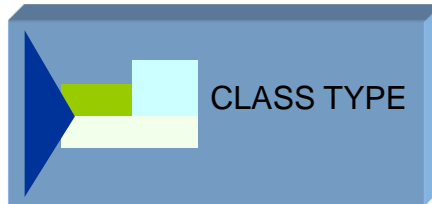


A Object Type is created with a SAP Table which also known as Object Table.
All the Class Type are created under a Object Type
Object Type Controls:

- Screen in Classes (Trans Code: CL20N)
- Sub screens that needs to be embed in the central assignment screens of the Classification
- Screen Sequence for Class maintenance

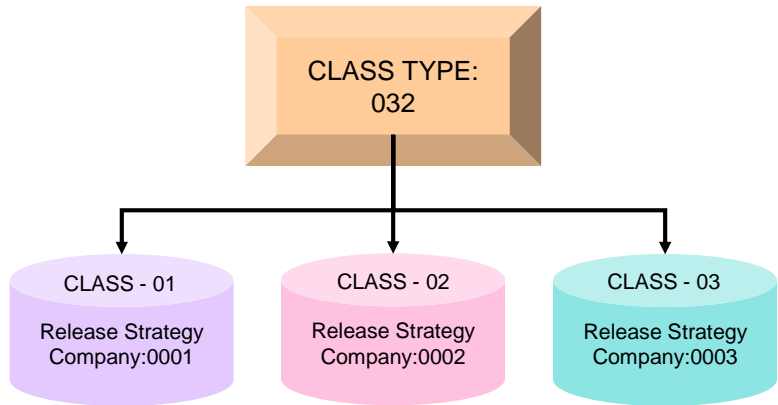


Class Type



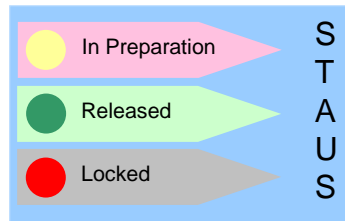
- Class Type is a Central component in the Classification System
- Class Type determines how the Classes are processed and how objects can be classified in these classes
- Each Class Type are assigned to an Object Type. The Classes created with these Class Type can be used to classify the objects of this Object type
Example of Object Type: Material, Release Strategy
- Examples of Class Type are:
 - 001: Class Type for Material
 - 300: Class Type for Variant Configuration
 - 200: Class Type for Bill of Material

Classes





Class Status



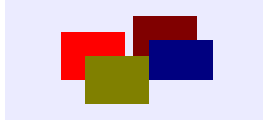
Class Status determines

- Whether a Class can be maintained
- Whether objects can be allocated to a Class
- Whether the Class can be used for selecting objects

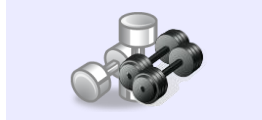


Characteristics

Characteristics '**COLOR**'

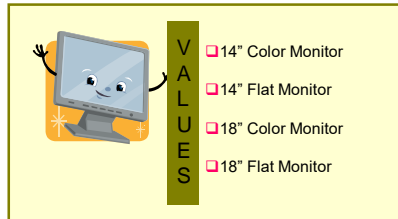


Characteristics '**WEIGHT**'



- The values maintained in a Characteristics specifies the properties of an Object
Example: Characteristics 'COLOR' has the value Red, Blue...
- Characteristics are created centrally and are assigned to the Classes

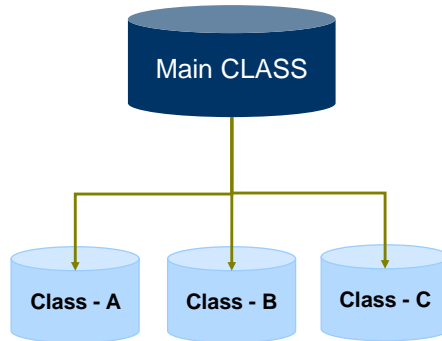
Values



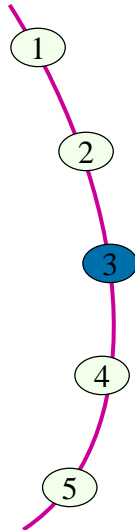
- List of allowed Values can be maintained for a Characteristics, from which any one can be selected while classifying the Object
- A Value in a Characteristics can also be made default
- Intervals can be maintained for Values. Example: Gross Price between 10 USD to 1000 USD
- Table can also be used to check the Allowed Values maintained in the Characteristics



Class Hierarchy



- Several Class can be assigned to one main Class and thereby help for faster search of Objects
- Class Hierarchy can also be in graphical form
- Class Hierarchy can be:
 - Class Hierarchy without Inherited Characteristics
 - Class Hierarchy with Inherited Characteristics



Prepare Me

Tell Me

Show Me

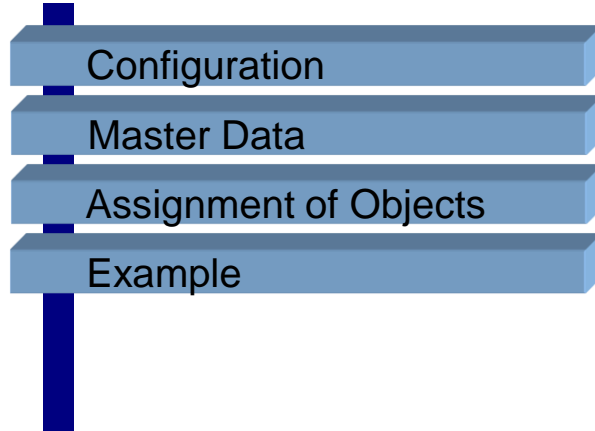
Let Me

Help Me

Classification



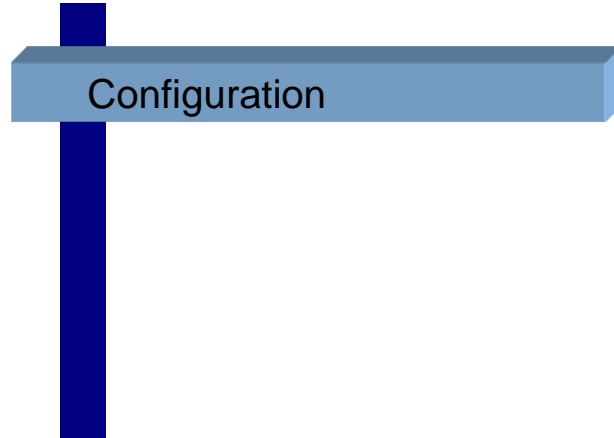
Agenda



Classification



Agenda



© 2018 Capgemini. All rights reserved.

24

Classification



Object Type

- Created with reference to SAP Table
- Controls
 - Screen control for Trans Code CL20N
 - Controls sub screen

Class Type

- Controls Screen for processing Classes
- Control Parameter for Classification
 - Standard Class Type
 - Multiple Classification
 - Variant Class Type
 - Hierarchy Allowed
- Controls Class Status
- Controls Organizational Area
- Controls Text Type

Configuration



SPRO → Cross Application Components → Classification System → Classes → Maintain Object Types and Class Types

Change View "Object Table": Details

Dialog Structure

- Object Table
 - Objects
 - Class Types
 - Class Status
 - Organizational Ar
 - Test Types
 - Classification Sta
 - Functions/Filters

Table: T18FS
Table text: Release Strategy
Obj class object: ☒

Screens

Assign Objects to Multiple Classes

Screen No. for CL20N: 125

Assign Objects to One Class

CL24N New Object: 225
CL24N Header Line: 325

Characteristic Value Assignment

Val.assig. scm no.: 425

Screens

- ☒ Keywords
- ☒ Charact screen
- ☐ Documents
- ☒ Tests
- ☐ Standards data

Other information

- ☐ Two-line basic scm
- ☐ Redundant storage
- ☐ Configurable object
- Object ID:

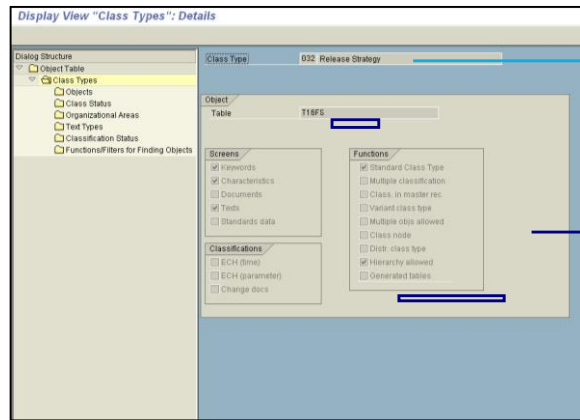
Controls the Screen for
Trans Code: **CL20N**

Controls the screen
Sequence for
Class Maintenance

Configuration



SPRO → Cross Application Components → Classification System → Classes
→ Maintain Object Types and Class Types



SAP Table on
which the Object
Type is created

Controls whether
Hierarchy is
possible with this
Class Type

Configuration



SPRO → Cross Application Components → Classification System → Classes
→ Maintain Object Types and Class Types

Display View "Class Status": Overview

| Dialog Structure | Typ | IS | Text |
|------------------------------------|-----|----|----------------|
| Object Table | 031 | 0 | In preparation |
| Class Types | 031 | 1 | Released |
| Objects | 031 | 2 | Locked |
| Class Status | 032 | 0 | In preparation |
| Organizational Areas | 032 | 1 | Released |
| Text Types | 032 | 2 | Locked |
| Classification Status | 033 | 0 | In preparation |
| Functions/Filters for Finding O... | 033 | 1 | Released |
| | 033 | 2 | Locked |
| | 034 | 0 | In preparation |
| | 034 | 1 | Released |
| | 034 | 2 | Locked |
| | 035 | 0 | In preparation |
| | 035 | 1 | Released |
| | 035 | 2 | Locked |
| | 036 | 0 | In preparation |
| | 036 | 1 | Released |
| | 036 | 2 | Locked |
| | 037 | 0 | In preparation |
| | 037 | 1 | Released |
| | 037 | 2 | Locked |
| | 038 | 0 | In preparation |

Class Type: 032

Status: 1 Released

Class maint. ☒

Classification ☒

Selection ☒

Default status ☒

Distribution (ALE)

Distr. lock ☐

Prof. name

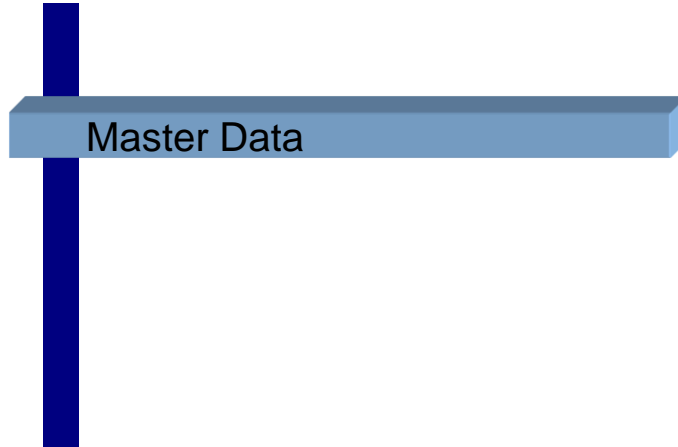
Status in Class Type Controls:

- Class Maintenance Functions allowed
- Allows to allocate objects to Class
- ALE Control

Classification



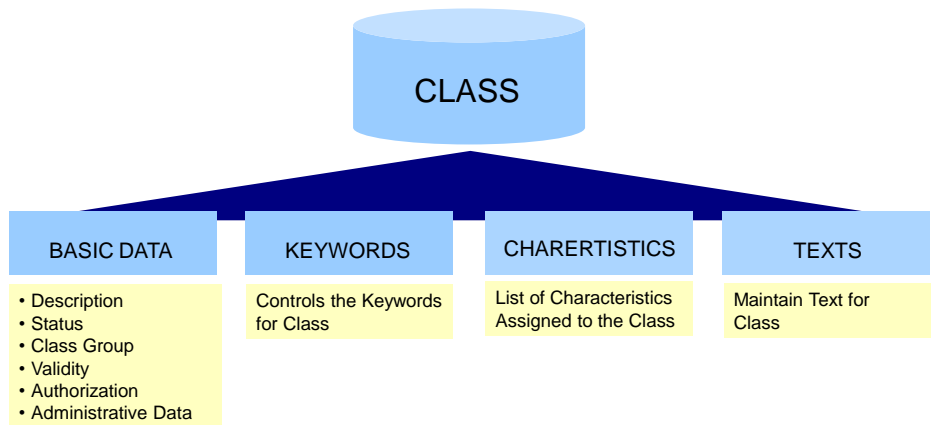
Agenda



© 2018 Capgemini. All rights reserved.

29

Class



Max 99 Keywords can be maintained for a single Class

Class



SAP Menu → Cross Application Component → Classification System → Master Data → Classes. Transaction: **CL02**

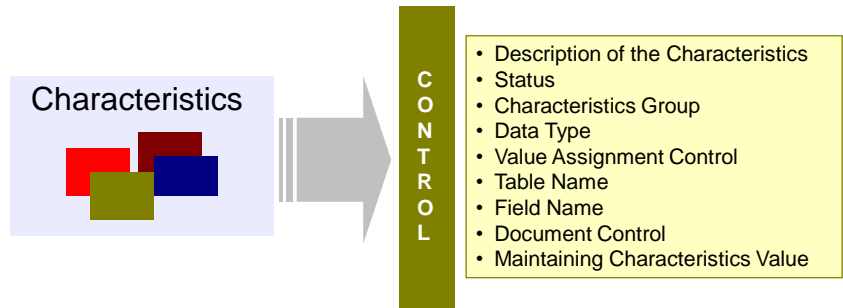
Class Type

Classstatus

| Char. | Description | Data | N | D | Unit | R | Org. Areas |
|--------------|-------------------------|------|----|---|------|---|------------|
| ZPOCOMPANY | Company Code | CHAR | 4 | 0 | | | |
| ZPOORG | Purchasing Organization | CHAR | 4 | 0 | | | |
| ZPOGRP | Purchasing Group | CHAR | 3 | 0 | | | |
| ZPODOC | Order Type (Purchasing) | CHAR | 4 | 0 | | | |
| ZPOVALUE_GBP | Total net order value | CURR | 15 | 2 | GBP | | |

Characteristic

Characteristics



- Characteristics are always created with a Class Type
- The various Data Type allowed are
 - Character Format – Alpha numeric characters allowed
 - Currency Format
 - Date Format – Periods of time or concrete points in time
 - Numeric Format – Only Numbers allowed
 - Time Format – Periods of time or concrete points in time

Characteristics



SAP Menu → Cross Application Component → Classification System → Master Data → Characteristics. Transaction: *CT04*

Change Characteristic

Characteristic: ZPOVALUE_GBP
Change Number:
Valid From: 17.08.2007 Validity

Basic data | Descriptions | Values | Addn data | Restrictions

Basic data

Description: Total net order value

Chars Group:
Status: Released

Auth Group:
Format:
Data Type: CLRR Currency Forma

Number of Chars: 15
Decimal Places: 2
Currency: GBP

Template:
☐ Entry Required

Value assignment

☐ Single-value
☒ Multiple Values

☒ Interval value allowed
☐ Negative Value Allowed
☐ Restrictable

Change Characteristic

Characteristic: ZPOVALUE_GBP
Change Number:
Valid From: 17.08.2007 Validity

Basic data | Descriptions | Values | Addn data

Descriptions and headings

| Langua | Description |
|--------|-----------------------|
| EN | Total net order value |

© 2018 Capgemini. All rights reserved.

33

Characteristics



Change Characteristic

Characteristic: ZPDVALUE_6BP
Change Number: [field]
Valid From: 17.08.2007

Basic data | **Restrictions**

Reference to Table Field
Table Name: CEXAG Field Name: QNETW

Document
Document: [field]
Document Type: [field]
Document Part: [field]
Doc. Version: [field]

Procedure for Value Assignment
☒ Not Ready for Input
☐ No Display
☐ Display Allowed Values

User Entry Handling
☒ Unformatted Entry
☐ Propose Template

Reference to Table Field

Class Type Restriction

Change Characteristic

Characteristic: ZPDVALUE_6BP
Change Number: [field]
Valid From: 17.08.2007

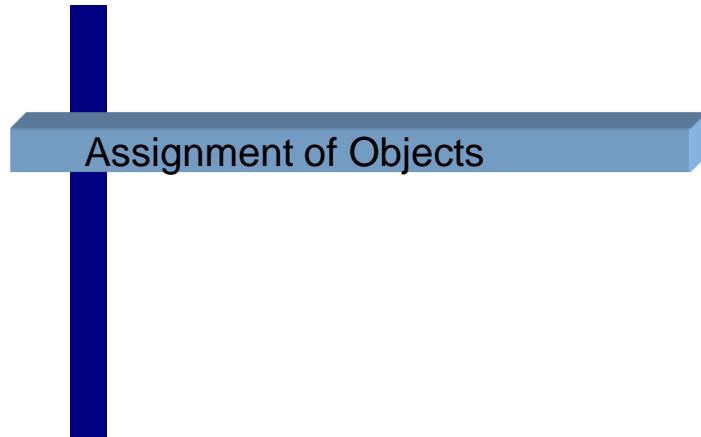
Basic data | Descriptions | **Values** | Addnl data | Restrictions

Valid Class Types

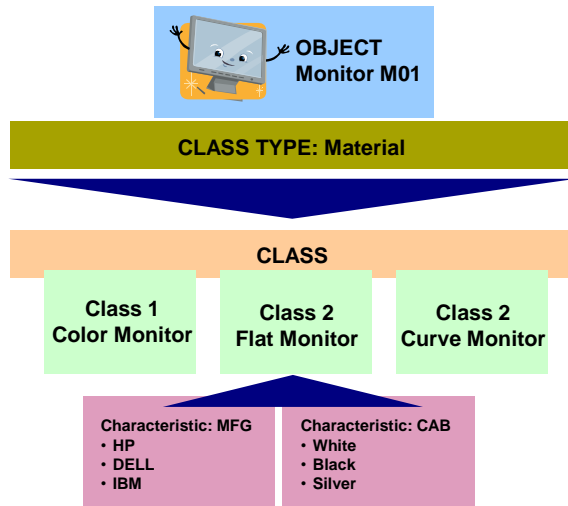
| Class Type | Description |
|------------|------------------|
| 032 | Release Strategy |



Agenda



Assigning Object to a Class (Allocation)



Assigning Object to a Class (Allocation)



The screenshot displays the SAP 'Assign Object to Classes' (CL20N) transaction. The top section shows the 'Object' tab with fields for 'Object' (180853), 'Vendor' (Tadomaru Shinsuke), and 'Class Type' (818). The 'Assignments' table lists two entries: 'Z_VENDOR1' and 'Z_VENDOR2', both assigned to the 'VENDOR' class. The bottom section shows the 'Values for Class Z_VENDOR2 - Object 180853' with a table for 'Characteristics' and 'Values'. The 'Characteristics' column lists 'VENDOR_1' and 'VENDOR_2', and the 'Values' column shows 'V2' and 'V1' respectively.

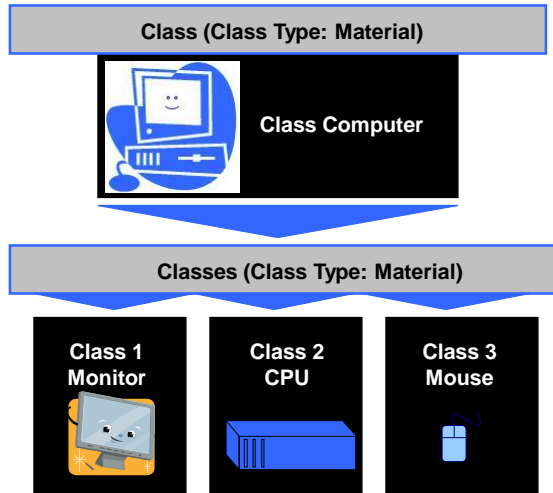
Class Type

Class

Characteristics

**SAP Menu → Cross Application Component → Classification System → Assignment → Assign Object to Class
Trans Code: CL20N**

Assign Classes to Class (Inheritance)



Assign Classes to Class (Inheritance)



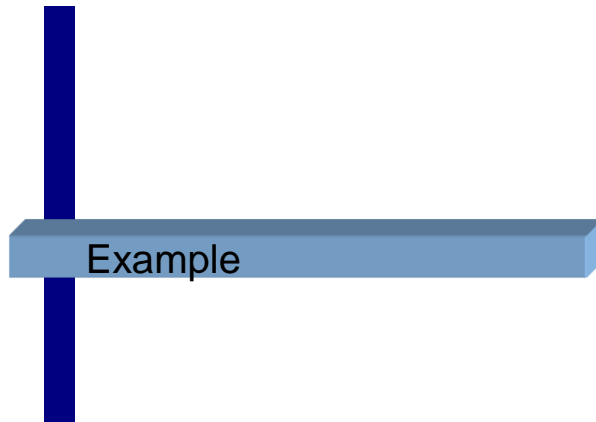
SAP Menu → Cross Application Component → Classification System → Assignment → Assign Class to Class
Trans Code: CL24N

The screenshot shows the SAP transaction 'Assign Objects/Classes to Class' (CL24N). The interface includes a 'Selection' section with fields for 'Class' (containing 'Computers') and 'Class Type' (containing '001'). Below this is an 'Assignments' table with columns for 'O...', 'S...', 'I...', and 'Object text'. Annotations with arrows point to specific fields: 'Class' points to the 'Class' field, 'Class Type' points to the 'Class Type' field, and 'Class to be assigned here' points to the first empty row in the 'Assignments' table.

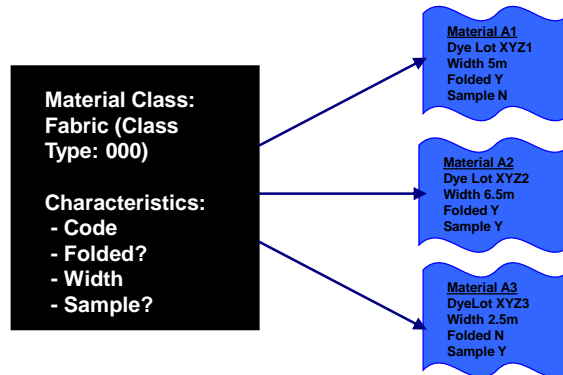
| O... | S... | I... | Object text |
|------|------|------|-------------|
| | | | |
| | | | |
| | | | |
| | | | |



Agenda



Class assignment to Material



Class assignment to Material



SAP Menu → Logistics → Materials Management → Material Master → Material → Create (General) → Immediately (MM01) – Classification view

Classification

Object
Material 7000117 DEV 113
Class Type 001 Material Class

Assignments

| Class | Description | Sta | S | Icon | Item |
|----------|-----------------------|-----|---|------|------|
| Z_FABRIC | Fabric - raw material | | | | |

Entry 1 / 1

Values for Class Z_FABRIC - Object 7000117

General

| Characteristic | Description | Value |
|-----------------|-------------|--------|
| Dye Lot | | 123456 |
| Folded Y/N | | Yes |
| WIDTH OF FABRIC | | 3.00 m |
| Sample | | No |

Class Type 001

Material Class

Characteristics and values

Assign Class to Release Strategy



Assign Class to Release Strategy



SAP Menu → Central Functions → Classification system → Master Data → Characteristics

The image displays two screenshots of the SAP 'Create Characteristic' dialog box, showing different tabs.

Left Screenshot (Basic data tab):

- Characteristic: PURCHASE_REQUISITION_VALUE
- Change Number: [Empty]
- Valid From: 01/13/2007
- Validity: [Empty]
- Basic data: Total value of requisition for
- Chars Group: 1 Released
- Status: 1 Released
- AuthGrp: [Empty]
- Format: Data Type: CURR Currency Form... [Empty]
- Number of Chars: 15
- Decimal Places: 2
- Currency: USD
- Template: [Empty]
- Value assignment:
 - Single-value
 - Multiple Values
 - ☒ Internal vals allowed
 - ☐ Negative vals allowed
 - ☐ Restrictable
 - ☐ Entry Required

Right Screenshot (Reference to Table Field tab):

- Characteristic: PURCHASE_REQUISITION_VALUE
- Change Number: [Empty]
- Valid From: 01/13/2007
- Validity: [Empty]
- Reference to Table Field:
 - Table name: CEBAN
 - Field name: GRNET
- Document: [Empty]
- Document Type: [Empty]
- Document Part: [Empty]
- Doc. Version: [Empty]
- Procedure for Value Assignment:
 - ☒ Not Ready for Input
 - ☐ No Display
 - ☐ Display Allowed Values
- Use Entry Handling:
 - ☒ Unformatted Entry
 - ☐ Propose Template

Class: SAP Menu → Central Functions → Classification system
→ Master Data → Classes

Create Class:

Change language

Class: PURCHASE_RELEASE

Class type: 032 Release Strategy

Change Number:

Valid from: BT/13/2007 Validity:

Basic data Keywords Char Texts

| Characteristic | Description | Data | H. | D. | Unit | R | Org | Areas | Gnd | O | I |
|-----------------------|-----------------------------|------|----|----|------|---|-----|-------|-----|---|---|
| PURCHASING_GROUP | Purchasing Group | CHAR | 3 | 0 | USD | | | | | | |
| PURCHASE_REQ_U STT.10 | Total value of requisition: | CURR | 15 | 2 | USD | | | | | | |

Assign Class to Release Strategy



IMG → Materials Management → Purchasing → <Purchasing Object> →
Release Procedure for <Purchasing Object> → Define Release Procedure for
<Purchasing Object>

New Entries: Overview of Added Entries

| Rel. group | Rel. object | OverReqRel | Class |
|------------|-------------|-------------------------------------|------------------|
| S1 | | <input checked="" type="checkbox"/> | PURCHASE_RELEASE |
| S2 | | <input checked="" type="checkbox"/> | PURCHASE_RELEASE |
| | | <input type="checkbox"/> | |

Change View "Release Strategies: Classification"

Object

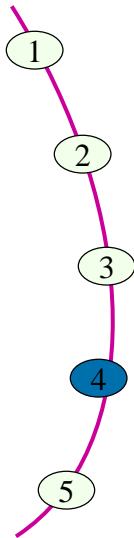
Release group S1 Rel. strategy L1 \$500<PR->\$10K
Class Type 032 Release Strategy

Values for Class PR_RELEASE - Object S1 L1

General

| Characteristic Description | Value |
|----------------------------|-----------------------|
| Total value of requisition | 500.00 - 10000.00 USD |
| Purchasing Group | 101 |

Classification



Prepare Me

Tell Me

Show Me

Let Me

Help Me

© 2018 Capgemini. All rights reserved.

47

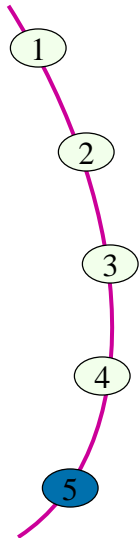


Classification in Purchase Order Release Procedure:

XYZ Corporation manufactures Monitors and Computer accessories. It has 10 Purchasing Groups (P01 – P10). The PO Release Strategy was partially configured before the Consultant was replaced. Release Group RG (containing codes AM – Assistant Manager and MG – Manager, SM – Sr. Manager and VP – Vice President). You are the new Consultant in charge of taking the process forward and the you have the following as the first task.

- Create a Release Class (of Type 032) and assign to Release Group RG.
- Create Release Characteristics PO_PURGRP representing the Purchasing groups and assign values based on the existing Purchasing groups and PO_VAL representing the total net order value of the PO.
- Define Release Indicators (B-Blocked, R-Released)
- Define a Release Strategy RG-S1 (Release Codes AM and MG and prerequisites being in that order and under classification assign values P01 and 0-5000 \$)
- Create a Purchase Order and test the Release Strategy

Classification



Prepare Me

Tell Me

Show Me

Let Me

Help Me

© 2018 Capgemini. All rights reserved.

49



Transport Classes and Characteristics

The values you assigned to characteristics in Development client cannot Be transported. They are stored in characteristic value tables that must be moved through your SAP environments via the ALE (Application Link Enabling) function.



It is therefore important to remember to request ALE with your transport. Following figure is a sample spreadsheet of transaction codes, which you can provide to your Basis team



Transport Classes and Characteristics (Inputs for ALE)

| Object | Transaction | Message Type |
|--|-------------|--------------|
| Characteristics: Purchasing_Group PR_Value | BD91 | CHRMAS |
| Class: PR_Release Class Type: 032 | BD92 | CLSMAS |
| Class: PR_Release Class Type: 032 | BD93 | CLFMAS |

Additional Information



Standard Class Types in SAP

| Class Type | Description |
|------------|--------------------------------|
| 001 | Material Class |
| 002 | Equipment Class |
| 003 | Functional Location |
| 004 | Reference Functional Location |
| 005 | Inspection Characteristics |
| 006 | Inspection Methods |
| 007 | Code Groups |
| 008 | Selected Sets |
| 009 | Production Resources and Tools |
| 010 | Vendor Class |
| 011 | Customer Class |
| 012 | Characteristics Class |
| 013 | Controlling: Orders |
| 014 | Controlling: Projects |
| 015 | Message Item |
| 016 | Object Link |
| 017 | Document Management |

| Class Type | Description |
|------------|------------------------------------|
| 018 | Task List Class |
| 019 | Work Center Class |
| 020 | Standard Network Class |
| 021 | Network |
| 022 | Batch |
| 023 | Batch |
| 024 | Dependency |
| 025 | Engineering Change Management |
| 026 | Retailing System Article Structure |
| 027 | Business Process |
| 028 | Variable List |
| 029 | Variant Tables |
| 030 | Plant |
| 031 | User-Defined Data Type |
| 032 | Release Strategy |
| 033 | Investment Program Positions |
| 034 | Department |



Additional Information

Standard Class Types in SAP

| Class Type | Description | Class Type | Description |
|------------|----------------------|------------|-------------------------------------|
| 035 | Site Hierarchy | 055 | Contract Class |
| 036 | Functions | 056 | iPPE Variant |
| 037 | Measuring Point | 060 | Layout areas |
| 038 | Activity | 070 | Trial Management |
| 039 | Master Warranty | 100 | Characteristic Values for Substance |
| 040 | Sequence | 101 | Trial Results (Process Parameters) |
| 041 | Funds Centers | 102 | Process Parameter Value Assignment |
| 042 | Fund | 170 | Document Distribution |
| 043 | Commitment Item | 200 | Material (Configurable Objects) |
| 044 | Characteristic Value | 201 | Document (Configurable Objects) |
| 047 | Assortment | 300 | Variants |
| 048 | Object Link | 301 | Model Service Specifications |
| 049 | Licenses | 501 | Contact Person |
| 050 | Reconciliation | 502 | Relations |
| 051 | Costing Model | 503 | Opportunities |
| 053 | iPPE Node | 504 | Activities |
| 054 | iPPE Variance Scheme | 800 | Business Location |