Authorization Management for Classification: A Case Study

Applies to:
SAP Classification System – R/3 and ECC 6.0

Summary
This is a case study about the general requirements related to Authorizations in Classification Component. Solution for these requirements is explained in detail with examples.

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Created on: 10 June 2009

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Introduction

In any SAP implementation where Classification component is used, there will be Authorization related requirements.

This article explains the following requirements with corresponding solutions along with example for Class type 001 in the form of a Case study

- Restricting the access to maintenance of particular Class
- Restricting the access to maintenance of particular Characteristic
- Restricting the access to Assign objects for a particular Class
- Restricting the access to maintaining particular characteristic in a classification of assigned object

Situations Where Above Authorization Requirements Are Called for

- In Implementations where multiple Plants exists, and each plant uses different Material classes for the respective plants; authorization should be given to modify such plant specific class and characteristics to the concerned plant users, even though transaction codes to maintain them are same.(CL02, CT04).
- More than one class is assigned to the material and responsibility of assigning & maintaining each class to material lies with different department users.
- Only one common material class which consists of characteristics required for different department users, where respective department users should have access to maintain only their characteristics.

Procedure for restricting the access to maintenance of particular Class

- Use Transaction CL02, Go to Basic Data tab.
- Specify Authorization Group 'X' in the field Class Maintenance.
- Specify this Authorization Group 'X' in the authorization object BGRKP in Role of required user in Transaction PFCG.
- User who is having Authorization group 'X' in the authorization object BGRKP can access only those classes which are having Authorization Group 'X'.

Procedure for restricting the access to maintenance of particular Characteristic

- Use Transaction CT04, Go to Basic Data tab.
- Specify Authorization Group 'Y' in the field Authorization Group.
- Specify this Authorization Group 'Y' in the authorization object C_CABN_GRP -ATATCH in Role of required user in Transaction PFCG.
- User who is having Authorization group 'Y' in the authorization object C_CABN_GRP can access only those Characteristics which are having Authorization Group 'Y'.

Procedure for restricting the access to assign objects for a particular Class

- Use Transaction CL02, Go to Basic Data tab.
- Specify Authorization Group 'Z' in the field Classification.
- Specify this Authorization Group 'Z' in the authorization object BGRKL in Role of required user in Transaction PFCG.
- User who is having Authorization group 'Z' in the authorization object BGRKL can assign only those classes which are having Authorization Group 'Z' to the Objects like Material
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Procedure for restricting the access to maintaining particular characteristic in classification of assigned object

Create organizational Areas in Customizing.
Navigation: SPRO -> Cross-Application Components -> Classification system -> Classes ->Maintain Object Types and class types

Select Table CABN, double click on Organizational Areas; click on New Entries.
Add organizational areas A, B for class type 001.

Use Transaction CL02, Go to Basic Data tab.
Specify, for example A, B in Organizational Areas field in Basic Data tab.
Specify Organizational Area A for set of characteristics and B for other set of Characteristics in Char data tab.
Specify Organizational Area A in the authorization object SICHT in Role of required user in Transaction PFCG.
User who is having Organizational Area A in authorization object SICHT can maintain only those Characteristics which are having organizational area A in the respective class.

Case Study

Master Data Used

1. Characteristics
   a) Pump_type Char 04 values (PT01, PT02, PT03)
   b) Pump_size Char 04 values (PS01, PS02, PS03)
   c) Tool_Type Char 07 values (Jig, Fixture)
   d) Tool_Size Char 06 values (Small, Medium, Big)

2. Classes
   a) Pump_Class Class type: 001
      Assign Characteristics: Pump_Type
      Pump_Size
   b) Tool_Class Class Type: 001
      Assign Characteristics: Tool_Type
      Tool_Size

3. Users
   a) ENGG1
   b) ENGG2
   c) ENGG
   d) TENG

4. Roles
   a) Z_ENGG_1
   b) Z_ENGG_2
   c) Z_ENGG
   d) Z_TENG
Requirements:

1. User ENGG1 should have following authorizations
   - Access to maintenance of only Characteristic Pump_type in CT04 transaction
   - Access to assign the Pump_class to Materials in MM01 or CL24N transactions
   - Access to modify/maintain only characteristic Pump_type in Material master

2. User ENGG2 should have following authorizations
   - Access to maintenance of only Characteristic Pump_size in CT04 transaction
   - Access to assign the Pump_class to Materials in MM01 or CL24N transactions
   - Access to modify/maintain only characteristic Pump_size in Material master

3. User ENGG should have following authorizations
   - Access to maintenance of Characteristics Pump_type, Pump_size in CT04 transaction
   - Access to maintenance of only Class Pump_class in CL02 transaction
   - Access to assign the Pump_class to Materials in MM01 or CL24N transactions
   - Access to modify/maintain both Pump_type and Pump_size characteristics in Material master

4. User TENG should have following authorizations
   - Access to maintenance of Characteristics Tool_type, Tool_size in CT04 transaction
   - Access to maintenance of only Class Tool_class in CL02 transaction
   - Access to assign the Tool_class to Materials in MM01 or CL24N transactions
   - Access to modify/maintain both Tool_type and Tool_size characteristics in Material master
Solution Steps

1. In Characteristic *Pump_type* specify authorization group ZE1
2. In Characteristic *Pump_size* specify authorization group ZE2
3. In Characteristic *Tool_type* specify authorization group ZT1
4. In Characteristic *Tool_size* specify authorization group ZT1
5. In Class *Pump_class* specify authorization group ZP1 in Class Maintenance & Classification
6. In Class *Tool_class* specify authorization group ZT2 in Class Maintenance & Classification.
7. Create Organizational Areas in Customizing

   *Nav:* SPRO -> Cross-Application Components -> Classification system -> Classes ->Maintain Object Types and class types

   Select Table CABN, double click on Organizational Areas; click on New Entries.
   Add following entries
   
<table>
<thead>
<tr>
<th>Class type</th>
<th>Org. Area</th>
<th>Organizational Area Desc</th>
</tr>
</thead>
<tbody>
<tr>
<td>001</td>
<td>A</td>
<td>Engineering 1</td>
</tr>
<tr>
<td>001</td>
<td>B</td>
<td>Engineering 2</td>
</tr>
<tr>
<td>001</td>
<td>C</td>
<td>Tool Engineering</td>
</tr>
</tbody>
</table>

8. In Class *Pump_Class* Specify Organizational Areas A & B in Basic Data. Select Organizational Area A for Characteristic *Pump_type*; Select Organizational Area B for characteristic *Pump_size*.

9. Maintain following parameters for Role Z_ENGG_1 in Transaction PFCG

<table>
<thead>
<tr>
<th>Authorization</th>
<th>Authorization Object</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>C_CABN_GRP</td>
<td>ATAUTH</td>
<td>ZE1</td>
</tr>
<tr>
<td>C_KLAH_BKL</td>
<td>BGRKL</td>
<td>ZP1</td>
</tr>
<tr>
<td>C_TCLS_BER</td>
<td>SICHT</td>
<td>A</td>
</tr>
<tr>
<td>C_TCLS_MNT</td>
<td>SICHT</td>
<td>A</td>
</tr>
</tbody>
</table>

10. Maintain following parameters for Role Z_ENGG_2 in Transaction PFCG

    | Authorization | Authorization Object | Value |
    |--------------|----------------------|-------|
    | C_CABN_GRP  | ATAUTH               | ZE2   |
    | C_KLAH_BKL  | BGRKL                | ZP1   |
    | C_TCLS_BER  | SICHT                | B     |
    | C_TCLS_MNT  | SICHT                | B     |

11. Maintain following parameters for Role Z_ENGG in Transaction PFCG

    | Authorization | Authorization Object | Value |
    |--------------|----------------------|-------|
    | C_CABN_GRP  | ATAUTH               | ZE1, ZE2 |
    | C_KLAH_BKP  | BGRKP                | ZP1   |
    | C_KLAH_BKL  | BGRKL                | ZP1   |
    | C_TCLS_BER  | SICHT                | A, B  |
    | C_TCLS_MNT  | SICHT                | A, B  |

12. Maintain following parameters for Role Z_TENG in Transaction PFCG
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<table>
<thead>
<tr>
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<th>Authorization Object</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>C_CABN_GRP</td>
<td>ATAUTH</td>
<td>ZT1</td>
</tr>
<tr>
<td>C_KLAH_BKP</td>
<td>BGRKP</td>
<td>ZT2</td>
</tr>
<tr>
<td>C_KLAH_BKL</td>
<td>BGRKL</td>
<td>ZT2</td>
</tr>
<tr>
<td>C_TCLS_BER</td>
<td>SICHT</td>
<td>C</td>
</tr>
<tr>
<td>C_TCLS_MNT</td>
<td>SICHT</td>
<td>C</td>
</tr>
</tbody>
</table>

13. Assign roles to Users as specified below

<table>
<thead>
<tr>
<th>User</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGG1</td>
<td>Z_ENGG1</td>
</tr>
<tr>
<td>ENGG2</td>
<td>Z_ENGG2</td>
</tr>
<tr>
<td>ENGG</td>
<td>Z_ENGG</td>
</tr>
<tr>
<td>TENG</td>
<td>Z_TENG</td>
</tr>
</tbody>
</table>
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