The transaction CL30N enables users to search for objects in classes. More precisely, the search function will find all materials that use the selected class with the given class type. Furthermore, the search also allows users to filter the results of a search to objects which have specific values set for the characteristics in classification.

When the Class and Class type are added, by hitting enter the search form will be shown.

The search form will automatically list all characteristics that are maintained in the class for the class type.

To carry out the search, the buttons “Find in initial class” and “Include subordinate classes” above the search form may be used.

In case no values were set for the characteristics in the search form, the result list will include all objects that have any values including none assigned to the characteristics in the classification of the material.

On the left side of the screen, the class hierarchy is shown to enable simple navigation between classes and subclasses.
On the lower part of the screen, the objects that match the search criteria will be listed.

**Change Layout** - the result list's layout may be adjusted to include other details in the listing view.

**Sort Ascending / Sort Descending** - the result list may be sorted in ascending or descending order.

**Search** - the result list may be searched through as well to find specific objects. This search option should not be confused with the object search that was carried out with the "Find in initial class" or "include subordinate class" search, as it will only search through the result list.

**Print** - the result list may be printed as well.

**Info** - the search list is displayed with the SAP List Viewer for SAP GUI, for which the documentation is available [here](#).

**Compare Objects** - when two or more objects are selected in the result list, it is possible to compare them by various criteria.

**Execute** - selected objects from the result list may be opened by clicking "execute" which will open the material in the transaction MM03.

**Hide selected Objects** - to hide objects from the result list, this option is available. However, in case the search is carried out again, the objects will be visible again. The hide selected objects is therefore only temporarily hiding the objects.

### User Settings in CL30N

The transaction CL30N offers many settings that may be set on a user bases and will affect the search results for the user. In case a search is carried out and an object that is expected to be found by the search is missing from the result list, users should first review the user settings and check if all options are set accordingly such that they do not exclude the requested object.

### Character Value Assignment Tab
Display Options

- **Standard** - the characteristics values are displayed as defined in the characteristic or as overwritten in the class.
- **Without values** - characteristic values will not be displayed directly on the value assignment screen and all settings in characteristic or maintenance class will be overwritten.
- **With Vals Without Page Formatting** - only allowed characteristic values will be displayed directly on the value assignment screen.
- **With Values and One Char. per Page** - only allowed characteristic values will be displayed directly on the value assignment screen all settings in characteristic or maintenance class will be overwritten. Additionally, a new page is opened for each characteristic and its values.

**All Assigned Values** - all values assigned to a characteristic are displayed. Otherwise, only the first value in the list is displayed (to save space), with a message that further values exist.

**Additional information** - an additional column appears on the value assignment screen. If a characteristic is inherited from superior classes or object dependencies are assigned to a characteristic or characteristic value, an indicator in the relevant column is displayed.

**Display reqd chars** - the required characteristics are displayed in a separate column to highlight that entry is required.
*Scope*

**Required Characteristics** - characteristics to which values must be assigned are displayed on the value assignment screen and the Entry required indicator is shown.

**Optional Characteristics** - characteristics to which value assignment is optional are displayed on the value assignment screen and no Entry required indicator is shown.

**With Assigned Values** - the characteristics that have a value already assigned are displayed on the value assignment screen. In case the characteristic does not have any values assigned, then the characteristic will not be displayed. However, when default values are set for a characteristic, it will be displayed.

**Without Values** - the characteristics that do NOT have a value already assigned are displayed on the value assignment screen. In case the characteristic has any values assigned, then the characteristic will not be displayed. When default values are set for a characteristic, it will be displayed.

**With Inherited Characteristics** - characteristics that are inherited from superior classes are displayed on the value assignment screen.

**With Additional Characteristics** - reference characteristics that are assigned to a class are displayed on the value assignment screen.

**With Excluded Characteristics** - characteristics and characteristic values are still displayed if they are excluded from the value assignment process by object dependencies. Excluded characteristics have an indicator showing that it is not possible to assign values to them. Excluded characteristic values are displayed in the possible entries dialog box, but it is not possible to select them. If the allowed values for the characteristic are displayed on the value assignment screen, excluded characteristics are not displayed, even if the Excluded characteristics indicator is selected.

Note: Object dependencies are only processed in variant configuration and when you classify objects, NOT when searching for objects.

**Find Object Tab**
**Display options for search result**

- **Display object** - the object and class numbers are displayed in the search result. It is not possible to display the objects, the object descriptions and the characteristics in the list at the same time.
- **Display description** - the description for objects and classes is displayed in the search result.
- **Object key and description** - object numbers and object descriptions are shown in the search result.
- **Object Type** - the different object types of the class are shown.
- **Classification status** - the search result will show when the assignment of the object in the class is blocked.

**Sorting of search result**

- **Sort ascending**
- **Sort by object type first**
- **No Sorting**
- **By object key**
- **By object name**

**Find object**

- **Default find string**
- **Display class hierarchy**

**Scope of search result**

- **Objs with chars but no values**
- **Locked assignments**
- **Incomplete assignments**
- **With released assignments**

**Maximum hits**

100

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* Display options for search result

- **Display object** - the object and class numbers are displayed in the search result. It is not possible to display the objects, the object descriptions and the characteristics in the list at the same time.
- **Display description** - the description for objects and classes is displayed in the search result.
- **Object key and description** - object numbers and object descriptions are shown in the search result.
- **Object Type** - the different object types of the class are shown.
- **Classification status** - the search result will show when the assignment of the object in the class is blocked.

* Sorting of search result

- **Sort ascending** - the objects are to be sorted in ascending order by characteristic value. The objects are sorted in ascending order by the values of the first characteristic, otherwise they are sorted in descending order.
- **Sort by Object Type First** - object types are sorted alphabetically. However, classes are shown at the to be able to see them quickly. Data in the other columns is sorted alphabetically per object type.
- **No Sorting** - Indicates that no sorting takes place.
- **By Object Key** - If this indicator is set, objects are sorted alphabetically according to their keys (numbers).
- **By Object Description** - objects are sorted alphabetically according to their descriptions.

* Find object
Default find string - for characteristics with data type character format, full-text search will be a default setting and will happen automatically.

Display class hierarchy - the hierarchy of the class entered is always exploded when the find objects function is started. The class hierarchy appears as a tree structure. It is then possible to double-click on a subordinate class in the hierarchy and to select it as an initial class for the search.

* Scope of search result
Obis with chars but no values - the search result will include objects which have the characteristics entered but no values assigned to the characteristics.
Locked assignments - the search result shows objects whose assignments to the class are 'locked'.
Incomplete assignments - the result of the class search is to include objects with assignment to the class marked as 'incomplete'.
With released assignments - the search result shows objects whose allocations to the class are 'released'.
Maximum hits - the maximum number is the number of objects that will be searched through when carrying out the search and NOT how many result will be shown in the search result.

General Settings Tab

Profile

Char. val. asmt  Find object  General settings  Default values

General language settings

EN Language Key

Display characteristic/value

- Lang-ind. char.
- Language-dependent description

- Language-independent value
- Language-dependent value

Display DIN code letter characteristic

Do not display document for class

Parameters

<table>
<thead>
<tr>
<th>CLA</th>
<th>Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAR</td>
<td>Class Type</td>
</tr>
<tr>
<td>VIEW</td>
<td>Organizational area</td>
</tr>
</tbody>
</table>

Change profile
*General language settings

**Language Key** - designates the language in which the user may display texts, enter texts and print documents.

* Display characteristic/value
  - **Lang-ind. char.** - language-independent characteristic names are displayed.
  - **Language-dependent description** - only the language-dependent characteristic descriptions are displayed on the screens for value assignment and finding objects.
  - **Display language-independent value** - shows that language-independent characteristic values are displayed.
  - **Language-dependent value** - only language-dependent characteristic values are shown on the screens for value assignment and finding objects.


- **Do not display document for class** - when maintaining a class, it is possible to assign a document to the class (Document tab) which is then displayed automatically the class is used to find objects. If this indicator is set, the automatic display of the document is switched off.

  * Parameters
    - **Class** - the class name used to uniquely identify a class within a class type.
    - **Class type** - uniquely identifies the class type.
    - **Organizational Area** - organizational areas that are allowed for the characteristics of this class. On the characteristics screen of the class it is possible to assign characteristics to the organizational areas that are defined for the class.

**Default Values Tab**
*Enter default values

Yes - default values that are defined in the characteristic are displayed on the value assignment screen. Select the Copy indicator as well.
No - default values that are defined in the characteristic are not displayed on the value assignment screen.

*Procedures

Copy - This procedure determines that the default values defined in characteristics maintenance are treated as user entries. These characteristics are interpreted as having assigned values. If the procedure Copy is selected, the Yes or No indicator may be selected to specify whether the default values are displayed on the value assignment screen.
Confirm - This procedure shows that default values for characteristics must be confirmed on the value assignment screen. If the default value is not confirmed, the characteristic is interpreted as having no assigned value.

Restrict Object Types

With the menu option ‘Extras’ ‘Restrict Object Type’ the search results may be limited to only certain object types. In case some objects that are expected in the search results are not showing up, this restriction option should be reviewed.
Object dependencies in CL30N

In transaction CL30n, no object dependencies are executed. To enable object dependencies you can activate user-exit CLCTMS03. For further information please see also the documentation of this user-exit and the note 383092.
The class and class type is handed over to the function module and with the export parameter EXP_DEP_ACTIVE you could decide if the object dependency is used or not. Therefore you have to set the value ‘X’ for parameter ‘EXP_DEP_ACTIVE’.

Additional Reference Characteristics

With the menu option ‘Extras’ ‘Additional reference characteristics’ the user may add reference characteristics to the search form and a value may also be added to narrow down search results.

The reference characteristics will now be added to the search form.
Changing the Layout of the Result List

The layout of the result list may be personalized to serve as a better overview to the user. Once the search has been carried out either with ‘Find in initial class’ or ‘Include subordinate classes’, in the result list the button ‘Change Layout’ may be clicked to open the layout editor popup.
Filtering the Result List

While the search criteria may narrow down the search, it is possible to further narrow down the result list by setting up filters. Once the search has been carried out either with 'Find in initial class' or 'Include subordinate classes', in the result list the button 'Set filter' may be clicked.
In the filter editor popup, the Column that contains the values that should be filtered must be added to the 'Filter Criteria' on the left side by selecting the Column name on the right side, then clicking the arrow pointing to the left.
In this example the filter criteria has been the object name being 'MAT_1' and once the filter has been set, the result list has also been narrowed down to the one MAT_1 object.

When the search is carried out again after the filter has been set either with 'Find in initial class' or 'Include subordinate classes', the filters will be removed and must be set again manually by the user.

Comparing Objects
In order to compare objects from the result list, after the search has been carried out either with 'Find in initial class' or 'Include subordinate classes', the objects from the result list may be compared. Each object that will be used in the comparison must be selected first from the result list. To select multiple objects either the Shift button should be held and each object selected with a mouse click or by holding the mouse and pulling the cursor over the object names.

Calling Transaction in Initial Screen

In transaction CL30n, the found objects from the result list can be processed further with reports or transactions. With the menu option 'Environment' --> 'Define function', the user can define transactions or reports, which can be called from the result list.

With note 1772556 a new feature was implemented in transaction CL30n. In the menu option Environment --> Define function, now a transaction may be defined to set where the initial screen is called.
If you want to open the object with the transaction in the initial screen, enter the transaction with category ‘E’.

The object is then called with transaction and category ‘T’. The initial screen is automatically filled with the object data and the transaction is already opened.
In this example the object is opened with category 'E' and on the initial screen it is now possible to change the data.
Display Equipment: Initial Screen

Equipment: EQUIPMENT01