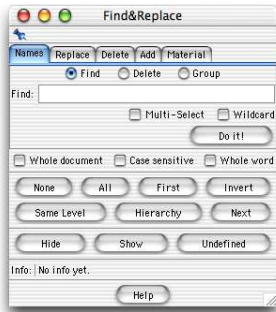




FIND & REPLACE

One thing that has been missing from Cinema4D since the very first versions is a search and replace function. Sometimes, digging out a specific object, specially inside a complex project, can become a nightmare. Even more if the names were not efficiently assigned and there are several objects named "Sphere" or "Cube". Fear not! *Find&Replace* is here to help manage big projects, adding search and replacement functions and many, many more. Once *Find&Replace* is opened, the following dialog is displayed:



On the top, there are four tabs that give access to four different types of operations. In the middle are some general purpose check boxes (more on these, later). Beneath them are ten buttons (seven Select buttons and three Display buttons) that perform some useful operations. Below there is an information space. In this space, sundry information will be presented, according to each type of operation performed. At the bottom, an Help button shows a window explaining how to use wildcard searches (see "WildCards" pannel).

Names Tab

Inside this tab, three types of operations can be performed: finding, deleting and grouping of objects.

Find

Typing a sequence of characters in the **Find** field and pressing **Do it!** will search the document for object whose name includes that sequence. If **Whole document** is on (off by default), the whole document will be searched. If not, the search will start from the first selected object. If **Case sensitive** is on (off by default), only a perfect match of upper and lower case characters will result in a selection.

If **Whole Word** is on (off by default), only the objects whose names contain an exact match with the search will be selected. So, if the search name is "Cube", only names with "Cube" will be found. Not names with Cube_1, Cube2, Cubes, etc.

If **Multi-Select** is on (off by default), all the objects whose names match with the search will be selected. If not, the search stops as soon as the first match is found.

If **Multi-Select** and **Whole document** are both off, as soon as the first match is found, if the object is inside a hierarchy, the whole hierarchy to which it belongs is opened. After the operation is finished, the **Info** field will display how many matches were found.

For a more powerful search, select the **Wildcard** option (off by default).

WildCards

Wildcards allow for more flexible searches. For that, two special characters are used: **?** and *****.
 The **?** stands for *any single character* and ***** stands for *any number of characters*. So, if one wants to select all objects whose names start with **Tr**, the search name should be **Tr***.
 Likewise, to find objects whose names end with **_1**, the search name should be ***_1**.
 Similarly, to find objects that start with **ABC** and end with **XZY**, the search name should be **ABC*XYZ**.
 To find all objects with names that contain exactly 5 characters, perform a search for **?????**.
 If one wants to find all objects named **Cube_10**, **Cube_11**, **Cube_12**, ..., **Cube_19** search for **Cube_1?**.
 A search for **Cube_??** would find **Cube_00** to **Cube_99** but not **Cube_1** or **Cube_125**.
 All there are just examples. Both **?** and ***** can be used inside the same search name. Any number of **?** can be used but only one ***** is allowed for each search name.
 For a more thorough explanation of wildcards, press the **Help** button on the *Find&Replace* dialog.

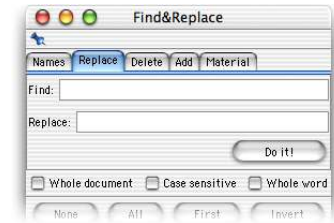
Delete

The search works the same way as in the **Find** option. All the objects that match the search will be deleted, except for the ones that include children (because that would delete objects that may not match the criteria). If any such case is found, a warning will show up and if the users decides to continue, the objects that match the criteria but can't be deleted will become selected at the end. Since deleting is very dangerous, the user must confirm this operation each time it is performed. The **Multi-Select** option is not considered in this operation.

Group

The search works the same way as in the **Find** option. All the objects that match the search will be grouped inside a **Null** named **Group_Object**, except for the ones that include children (because that could split hierarchies and destroy some objects arrangements). If any such case is found, a warning will show up and if the users decides to continue, the objects that match the criteria but can't be grouped will become selected at the end. If an object named **Group_Object** already exists, the objects that match the criteria will be placed inside it. If not, a new **Null** named **Group_Object** will be created. The **Multi-Select** option is not considered in this operation.

Replace Tab



Inside this tab there are two text fields. Once **Do it!** is pressed, every occurrence of the text typed in the **Find** field that is found in the name of each object is replaced by the text typed in the **Replace** field. No wildcards are allowed in here. If there is no text inside the **Replace** field, each sequence of characters found is deleted from the name.

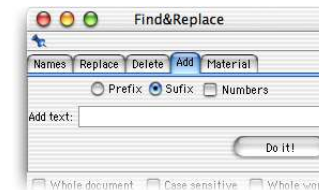
The **Whole document** option works a bit differently here. If it is on, the search is performed on the entire document (and a confirmation is asked for). If it is off, it is only performed on the selected objects. If **Case sensitive** is on (off by default), only a perfect match of upper and lower case characters will result in a replacement. If **Whole Word** is on (off by default), only the objects whose names contain an exact match with the search will be replaced. So, if the search name is "Cube", only names with "Cube" will be found and replaced. Not parts of names with Cube_1, Cube2, Cubes, etc.

Delete Tab



Inside this tab one can choose how many characters to delete from the beginning or end of the names of the objects. The **Whole document** option works a bit differently here. If it is on, the search is performed on the entire document (and a confirmation is asked for). If it is off, it is only performed on the selected objects. If the deletion of the number of characters specified would create an empty name, no characters will be deleted.

Add Tab

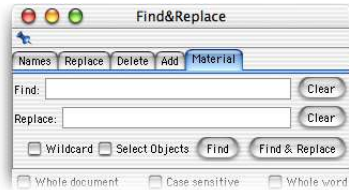


Inside this tab one can add any sequence of characters or, optionally, sequential numbers to the beginning or end of the names of the objects. The **Whole document** option works a bit differently here. If it is on, the search is performed on the entire document (and a confirmation is

asked for). If it is off, it is only performed on the selected objects. If **Numbers** is on (off by default), the number input in the **Add text** field will be the starting number. Each new addition increments this number by 1. The same number of numeric characters is added, preceeded by leading zeros, if necessary. *Find&Replace* is clever enough to calculate how many zeros it needs to add, depending on the number of changes that will occur.

The **Case sensitive** check box is not relevant in this option.

Material Tab



Inside this tab there are two text fields. If **Find** is pressed, every occurrence of the material - whose name is in the **Find** field - that is found assigned to any object is selected on the Object Manager. If **Find & Replace** is pressed, every occurrence of the material - whose name is in the **Find** field - that is found assigned to any object is replaced by the material whose name is in the **Replace** field. No wildcards are allowed in here. For a more powerful search, select the **Wildcard** option (off by default) - see "WildCards" pannel. Instead of typing the names of the materials in the **Find** and **Replace** fields, material icons from the **Material** browser or **Material Tags** from the **Object Manager** can be dragged and dropped into the fields. For added convenience, two **Clear** buttons were added in front of each field.

If the **Select Objects** option is on, the objects that contain the found material will also be selected (only works with the **Find** button). If the **Whole document** option is on, the search is performed on the entire document. If it is off, it is only performed on the selected objects.

Select Buttons



None

Deselects ALL objects in the document.

All

Selects ALL objects in the document.

First

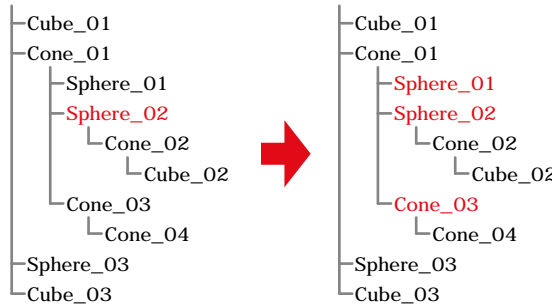
Selects the first object in the document.

Invert

Deselects all objects in the document that are selected and selects all objects in the document that are deselected.

Same Level

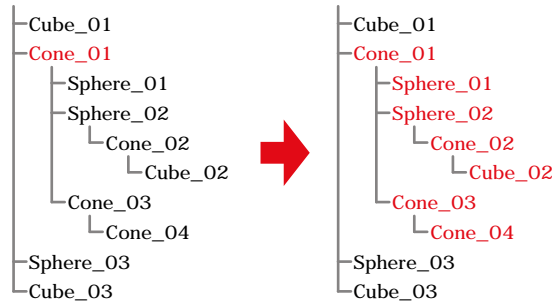
Selects all objects in the document that are at the same level of the selected object. For instance, if the selected object is Sphere_02, after the **Same Level** button is pressed, Sphere_01, Sphere_02 and Cone_03 will be selected.



If no object is selected, all objects at the root level will be selected.

Hierarchy

Selects all children of the selected object. For instance, if the selected object is Cone_01, after the **Hierarchy** button is pressed, Cone_01, Sphere_01, Sphere_02, Cone_02, Cube_02, Cone_03 and Cone_04 will be selected.



If no object is selected, nothing will happen.

Next

Selects the object that is right after the selected object. It even travel through entire hierarchies. If the last object is selected, the **Next** button will wrap the selection to the beginning of the document. If no object is selected, nothing will happen.

Display Buttons



Hide

Turns the dots of the selected objects to red, hiding all the selected objects.

Show

Turns the dots of the selected objects to green, forcing the display of all the selected objects.

Undefined

Turns the dots of the selected objects to grey, returning all the selected objects to the default mode.

Help

Shows a window that contains information about the wildcard system. Since this is an old system (used in DOS), many people may not be too familiar with it. But it is very, very powerful. Take the time to learn it and it will allow for very efficient searches.

About the plug...

This tool was made by Rui 'Mac' Batista, using COFFEE, the internal scripting language of Cinema4D. It was tested by many people, including the author. It is not free from possible bugs, though. If you find any problem, look at the Console (shift+F10) for any error that may be reported there. Please contact the author (rui_mac@yahoo.com) and provide him as much information as possible. If you have any suggestions for additional options, feel free to send them to the author. No promise is made that it will be implemented but all suggestions will be considered.