

Knowledge Base

Information



Abaqus/CAE plug-in for creating node and element sets in the Visualization module

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Product: n/a

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QUESTION

I would like to create a node or element set interactively in Abaqus/Viewer. How can I do this?

ANSWER

(The following applies to Version 6.8 and higher)

An Abaqus/CAE plug-in for this purpose is attached below. The plug-in allows you to create a node or element set in Abaqus/Viewer by picking objects in the viewport. The nodes or elements can be from a mixture of part instances. The plug-in also allows for the copying of sets.

Installation

To install the plug-in, save the attached archive file to one of the following directories:

`abaqus_dir\abaqus_plugins` where `abaqus_dir` is the Abaqus parent directory

`home_dir\abaqus_plugins` where `home_dir` is your home directory

`current_dir\abaqus_plugins` where `current_dir` is the current directory

Note that if the `abaqus_plugins` directory does not exist in the desired path, it must be created. The `plugin_dir` directory can also be used, where `plugin_dir` is a directory specified in the `abaqus_v6.env` file by the environment variable `plugin_central_dir`. You can store plug-ins in a central location that can be accessed by all users at your site if the directory to which `plugin_central_dir` refers is mounted on a file system that all users can access. For example,

```
plugin_central_dir = r'\\fileServer\sharedDirectory'
```

This plug-in requires that you download, save, and extract the archive file **CaeManagerTemplate.zip** attached to Answer Manager dialog template for Abaqus/CAE plug-in development.

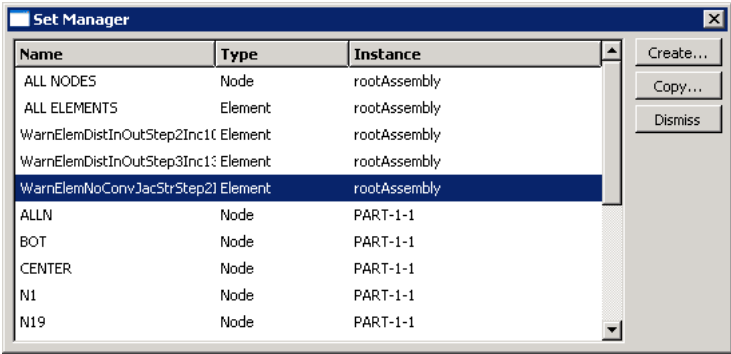
On Windows platforms, right click on the archive files and select **WinZip** → **Extract to here**. On Linux platforms, type **unzip ViewerSetSupport.zip** and **unzip CaeManagerTemplate.zip** at the command prompt. Folders named `abq_ViewerSetSupport`, `abq_CaeManagerTemplate` and a file named `viewerSetSupport_plugin.py` will be extracted.

Note that the plug-in will not function properly if this procedure is not followed.

Usage

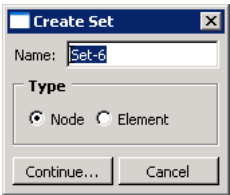
1.
- In the Visualization module of Abaqus/CAE or in Abaqus/Viewer load the desired output database (.odb)
2.
- Select **Plug-ins** → **Tools** → **Node/Element Set Manager...** to receive the following dialog similar to the one shown below:

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The existing sets will be listed and alphabetically ordered by Instance and set type.

3.
- Select **Create** to receive the following dialog



4.
- Select the type of set to be created and select **Continue...**
5.
- Choose the nodes or elements from the viewport and select **Complete** from the prompt area. The set will be listed in the **Set Manager** dialog.
6.
- Select **Copy** to copy an existing set. A new name will have to be entered. Since the .odb cannot have data deleted or edited, the manager does not contain the customary **Edit**, **Rename** or **Delete** buttons.

7.

Notes

The set you create will not be saved to the .odb if the database was opened as read-only. Uncheck the **Read Only** check box from the **Open Database** dialog to have the newly created sets persistent over multiple Abaqus/CAE sessions. The sets created with this plug-in will also be listed in the **Create Display Group** manager. In addition, see the related status report below.

Please be aware of bug v68_1279 (link below), which affects node creation, and SIR-100073, which affects Display Group updates.

Revision History

| | |
|-----------|-----------------------|
| 15 Sep 08 | Release version 1.1-1 |
| 19 Aug 11 | Release version 1.1-2 |

Disclaimer

The attachments to this article are subject to certain usage conditions. Please [click here](#) for details.

ATTACHMENT

- Answer_3826_Fig2.png
- Answer_3826_Fig1.png
- ViewerSetSupport.zip

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