Knowledge Base

Abaqus/CAE plug-in to save material and section information

Portfolio / Domain: SIMULIA Abaqus Unified FEA / SIMULIA Abaqus Unified FEA
Product: SIMULIA Abaqus/CAE

Information	
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QUESTION

I have created a number of materials and sections in my model. Is there an option to save them so they can be loaded in the next session of Abaqus/CAE?

ANSWER

(The following applies to Version 6.7 and higher)

An Abaqus/CAE plug-in application for this purpose is attached below. The plug-in saves material and section information into XML format and then allows you to import this XML object in a later session.

Installation

Important: The latest XML core module must be installed before this plug-in can be used. Please refer to Answer Abaqus/CAE plug-in for XML-based save and import of session-specific settings for details about obtaining and installing the XML core module.

When the XML core module is installed, one of the following directories is created:

> *abaqus_dir*\abaqus_plugins\caeXML where *abaqus_dir* is the Abaqus parent directory

> *home_dir*\abaqus_plugins\caeXML where *home_dir* is your home directory

> *current_dir*\abaqus_plugins\caeXML where *current_dir* is the current directory

Save the attached archive files in the `caeXML` directory where the XML core files have been saved.

On Windows platforms, right click on the archive file and select **WinZip → Extract to here**. On Linux platforms, type **unzip materialSections.zip** at the command prompt. Two folders, named `materials` and `sections,` and sub-folders will be extracted. Note that the plug-in will not function properly if this procedure is not followed.

Usage

1. Open Abaqus/CAE and use the **Property** module to create material and/or section properties as desired.

2. From any module other than **Sketch**, select **Plug-ins → Export/Import Manager...** to receive the following dialog:
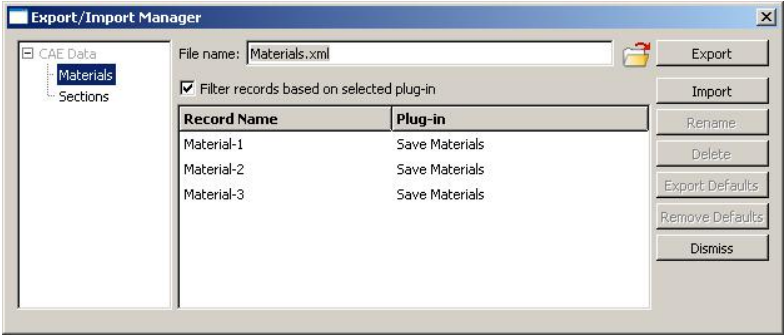

3. In the **File name:** field enter the name of the file where the definitions will be exported. If the file does not exist, it will be created in the directory from which you launched Abaqus/CAE. If you wish to save the definitions in the current model database then select the **MDB** radio button. Or if you wish to save the definitions in any currently open output database then select the **ODB** option and choose appropriate ODB from the combo box.

4. Select **Export** to receive the following dialog (if, for example, **Materials** was selected in the left pane list - the same instructions apply when **Sections** is selected):

5. From the pull-down menu in the **Model:** field, select the model that contains the material (or section) you want to export.

6. Check the individual items in the **Material** (or **Section**) column to select the materials (or sections) that you want to export. You can also use drag-select to check/uncheck multiple materials (or sections) or use **Set All On** button to select all materials (or sections) in the model.

7. Based on the material (or section) names, the plug-in will automatically populate the **Record Name** field of the table. Default names are given. For details on records, please see Answer Abaqus/CAE plug-in for XML-based save and import of session-specific settings.

8. To load previously saved material or section definitions, from any module select **Plug-ins → Export/Import Manager...** to receive the following dialog:

First select the appropriate XML, model database or output database file. Then select records that have been previously created by the **Materials** (or **Sections**) plug-in. Select **Import**. An import dialog will come up where you can change the name of the imported material (or section). Note that while importing in Abaqus/CAE, the plug-in may prompt you to overwrite existing material or section definitions if the same material or section name is found in the current database.

Notes

1. The XML schema used when storing object information may change in future releases of Abaqus/CAE. Thus, future versions of this plug-in may not be able to import XML files created from previous versions.

2. Even though connector sections may be listed in the sections export dialog, the section plug-in does not support them.

Disclaimer

The attachments to this article are subject to certain usage conditions. Please click here for details.

MY FAVORITE CONTENT

KEYWORDS

save, material, section, plug-in, persistent, load, import, export, display, xml, file, translate,,

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ATTACHMENT

answer_3748_fig1.jpg   answer_3748_fig3.jpg   answer_3748_fig2.jpg   materialSections.zip

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