How do I package the Version
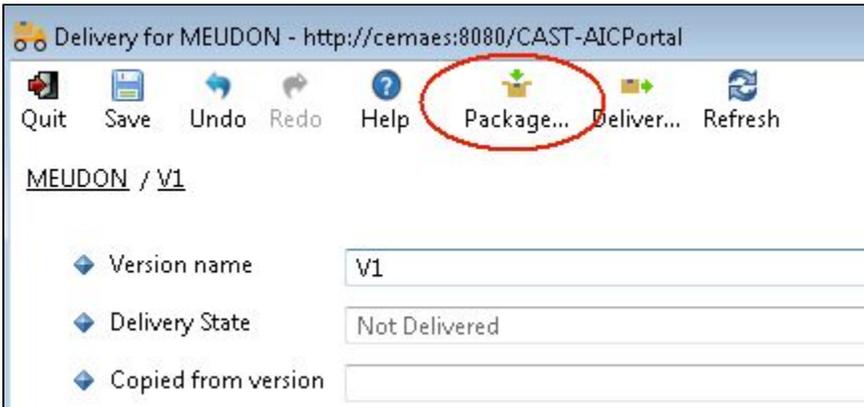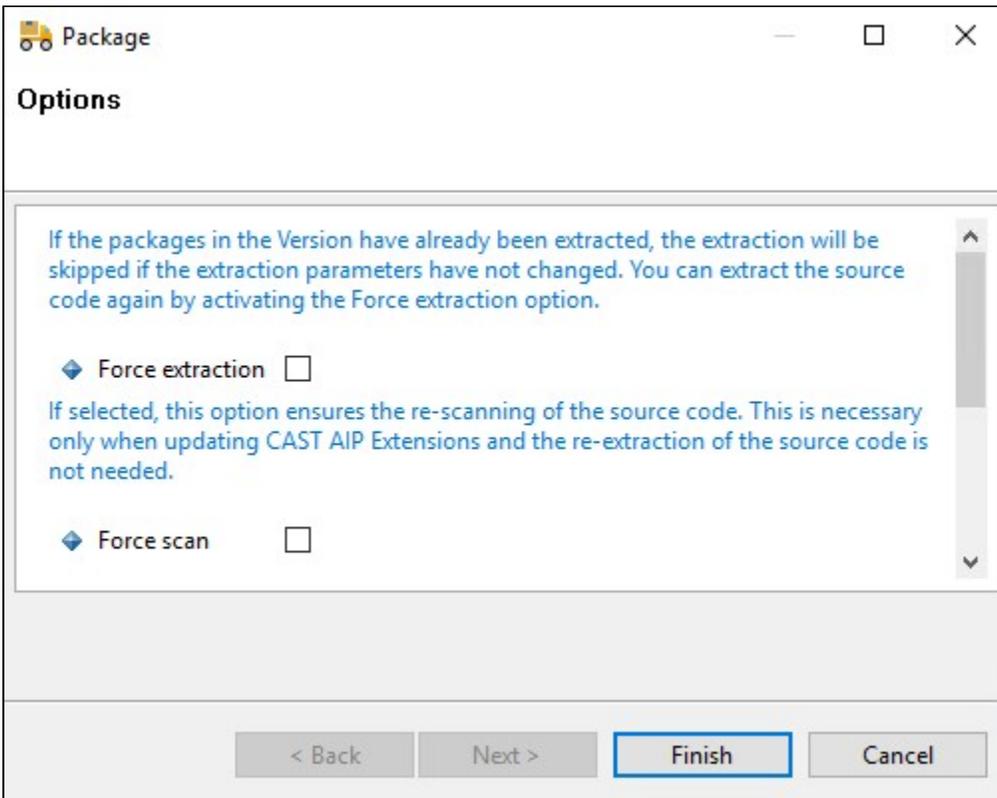
Introduction

This section explains how to **package a Version** once you have completed the creation of your source code packages. This action will start a multi-step process to package the source code using the configuration settings you have defined in the **Package Configuration tab** for each package. The end result of a successful **Package** action will be a Version (and source code package or packages) that can be delivered to the CAST AI Admin assuming no warnings or errors are raised (in this case a remediation may need to be applied and the Package action re-run).

Run the package action

Move to the **Version page** and click the **Package** button located on the toolbar:

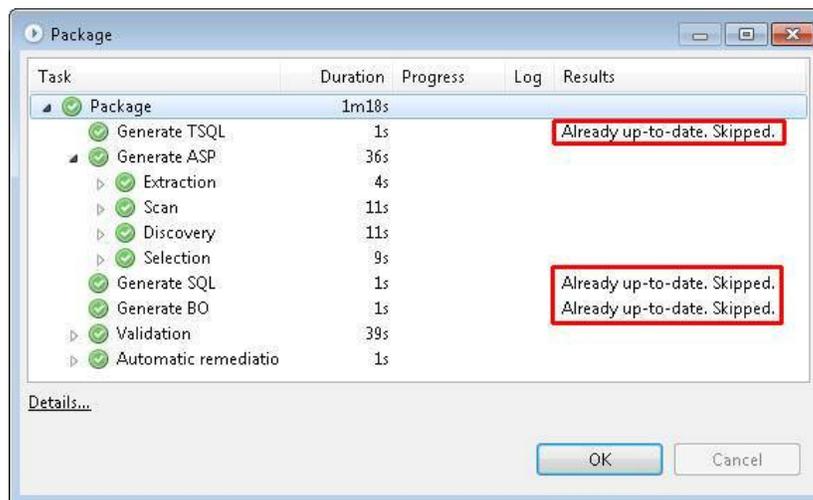This will invoke an **Option dialog box**:

Force extraction	By default, if any of the child source code packages have already been packaged and the configuration parameters (i.e. those selected in the **Package Configuration tab**) have not changed since this previous packaging, then the source code will not be extracted again and this step will be skipped. For example, the source code packages "TSQL", "SQL" and "BO" have been skipped while the source code package "ASP" has been packaged: *Click to enlarge* In most circumstances, this option should not be ticked as it will increase the time required to perform the package action. However, if you have modified the source code since this previous extraction (refer to the "Last extraction date" in the package header), then you should select the **Force extraction** option. This will ensure the source code is re-extracted, regardless of whether it has been extracted packaged in a previous package action and whether their configuration parameters have changed.

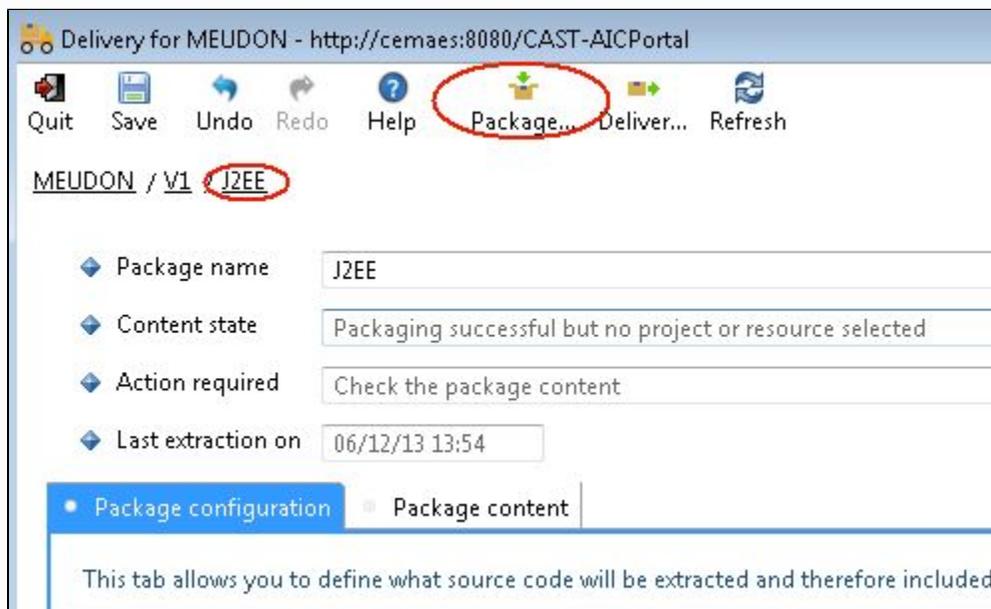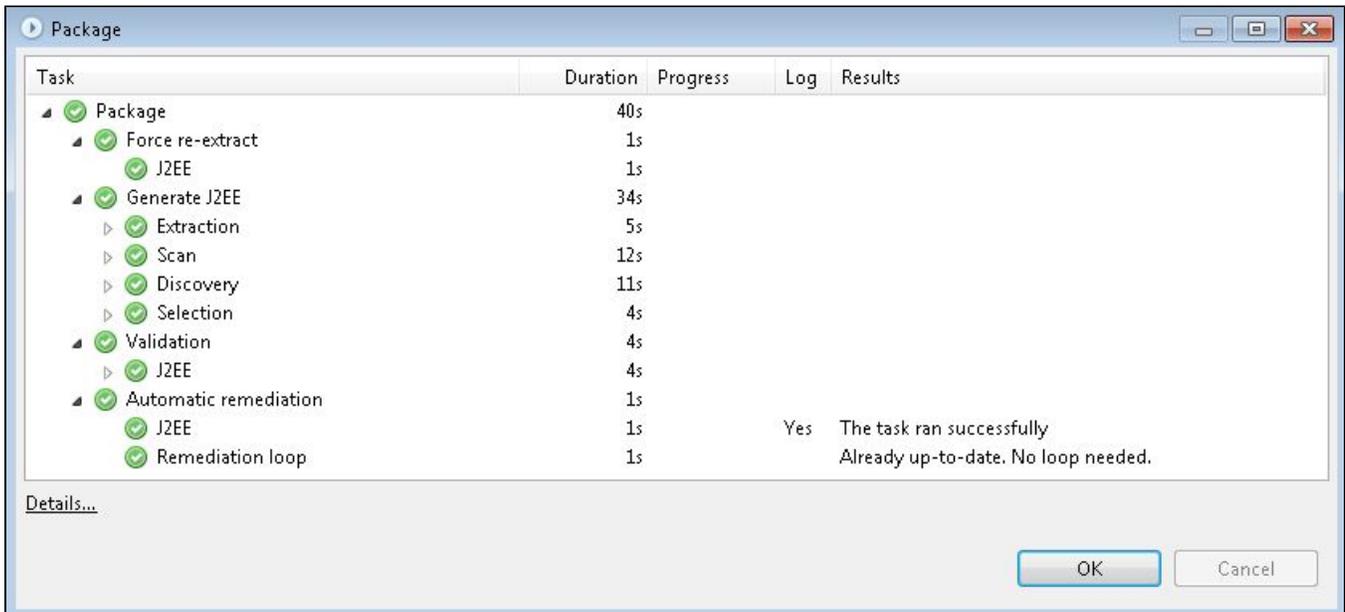| Force scan	By default, if any of the the child source code packages have already been packaged and the configuration parameters (i.e. those selected in the **Package Configuration tab**) have not changed since the previous packaging, then the scan action (part of the source code discovery process) will be skipped.
	If you have installed a CAST AIP Extension (for example a file discoverer) and want to force the source code package(s) to be **scanned** again, then you should select the **Force scan** option. This will ensure all source code packages are scanned during the packaging, regardless of whether they have been scanned in a previous package action.
	Note however, that the previously packaged source code must exist on the workstation on which the package action is being run: • If the package action is being run in the CAST Delivery Manager Tool accessed directly from the CAST Management Studio then the source code will always be available. • If the package action is being run in the CAST Delivery Manager Tool accessed directly from the CAST AIC Portal, then the packaged source code will have been deleted from the local workstation the end of the previous package action. In this scenario, you must choose the **Force extraction** option instead, which will extract the source code again and then scan it.

Click **Finish** to complete the action.

ⓘ Note that running the Package option from the **Version page** will package all source code packages in the Version. If there are other Delivery Managers working on other source code packages, you should only package your specific packages. This can be achieved by running the Package option from the **Package** page:

The Package process will then begin. A dialog box displays progress and the end result. When the packaging is **successful**, you should then validate it and if necessary, fine tune it / remediate alerts.
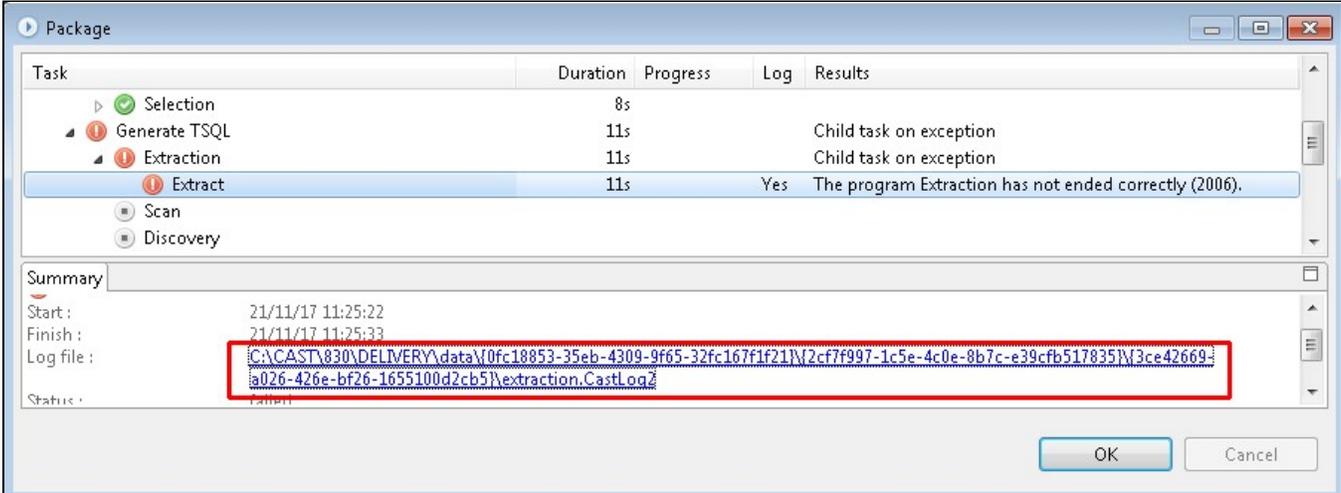
Package action steps

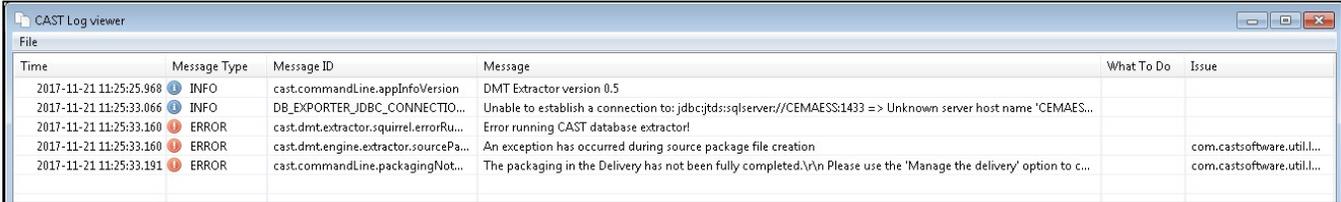|	
Extraction	This step corresponds to the CAST Delivery Manager Tool accessing the location of your source code as defined in the **Package Configuration tab - Where is your source code?** This step is skipped: • if the corresponding source code package has already been packaged • and if the configuration parameters in **Package Configuration tab - Where is your source code?** have been modified since the previous Package action

Scan	During this step, the source code location (database/schema/folder/repository etc.) is scanned in order to identify the source code resources. This step is skipped:
	
	• if the corresponding source code package has already been packaged
	• and
	    • if the source code package name has been modified
	    • if a manual remediation item has been added for an undefined variable (How do I fine-tune my Version)

Discovery	During this step the CAST Delivery Manager Tool uses a "discoverer" that matches the target source code type to identify what should be included in the source code package. This step is skipped:
	
	• if the corresponding source code package has already been packaged
	• and
	    • if the **Scan** step has also been skipped
	    • if the configuration parameters have not been modified in the **Type of projects to include in the package** section

Selection	During this step, the CAST Delivery Manager Tool computes a list of resources (source code files etc.) that will be included in the source code package. This is based on:
	
	• The items discovered in the **Discovery** step
	• The list of missing resources (displayed via alerts in **Package Alert tab**)
	
	This step is skipped:
	
	• if the corresponding source code package has already been packaged
	• and
	    • if the **Discovery** step has also been skipped
	    • if the configuration parameters have not been modified in the **Projects to exclude** section

Validation	During this step, the CAST Delivery Manager Tool will validate the resources that have been selected and extracted. Any missing resources will cause an alert to be generated.

What if the packaging action fails?

If the Packaging action **fails in the middle of the package action**, a link to a log will be displayed:

Clicking the link will display the **log viewer** (see below), which can help you identify what caused the packaging to fail (in this example the DMT could not access the required database for extraction):

If this is the case, you will need to **re-configure the affected package(s)** or **solve any issues related to accessing the source code** and then **re-run the package action**. When the packaging is **successful**, you should then validate it and if necessary, fine tune it / remediate alerts.

> ⓘ Note that these logs are also available in the Package Content tab for each package in the Version.

Validate your version

The following methods should be used to validate at a "global" level the successful packaging of a Version.

| **View delivery report** | Use the **View delivery report** to check the delivery at a global level. This option will generate an XML based report that can easily be ex~ delivery, for example:

• Projects found
• Alerts
• etc.

The report will open with the default application assigned to open XML files. The report will only contain information once the **Package ac**

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Discovered files report	The CAST Delivery Manager Tool also offers a report on **discovered files** - this will give you an indication of what the version will contain
Delivery State, Content State and Action required	Use these fields at Version level to determine the state of the Version and what to do next:

Warnings, errors or alerts?

If your successfully packaged Version:

- **does not contain** any warnings, errors or alerts, you can **deliver the Version** (see How do I deliver the Version for analysis):

- **does contain** warnings, errors or alerts, you must ensure that these warnings/errors will **not impact the analysis** and that any **alerts are dealt with correctly.** This will involve fine tuning your Version and Packages, remediating/ignoring alerts and then re-running the packaging action.