

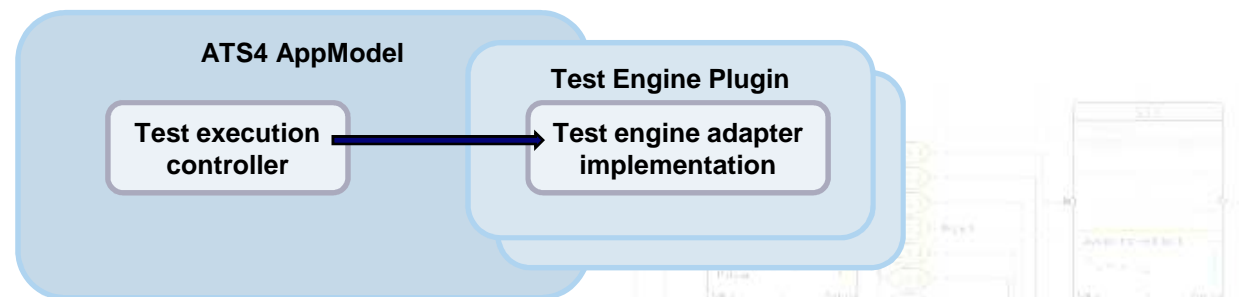
ATS4 AppModel Integration Guide

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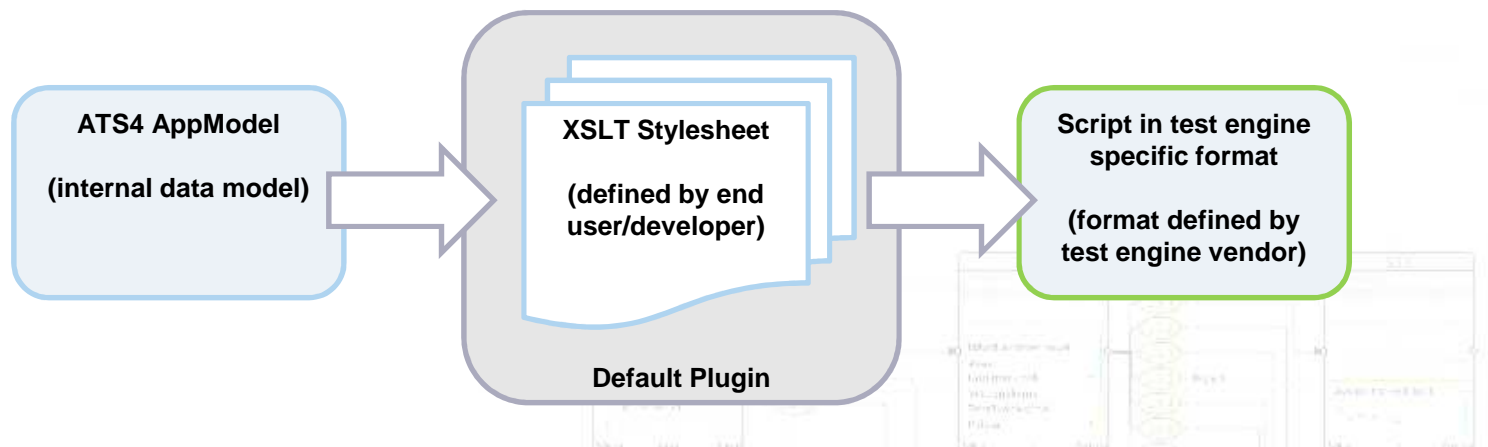
Introduction

- ATS4 AppModel is based on approach that allows any **keyword based test engine** to be used for executing the tests.
- In this context, "test engine" refers to a 3rd party software that is used to drive the target software or device to test it in automatic manner, by using scripts or remote interface.
- ATS4 AppModel features a simple **plugin architecture** for adding test engine support
- Custom **test engine adapters** may be developed by implementing a **simple interface** and deploying the plugin as a single package
- **ATS4 AppModel Common Library** contains the required Java classes and interfaces for plugin development



The Default Plugin

- ATS4 AppModel includes a Default Plugin that supports **test script exporting** and test "execution" to specified output file.
- Script generation is based on **XSLT stylesheets**, which enables end users to change the resulting script format with a reasonable effort. No programming required, just set the desired stylesheet in the plugin settings.
- Provides the basic functionality for script generation and thus it can also be used as a base for custom test engine adapters.



ATS4 AppModel Common Library

- A separate distribution for plugin developers. Contains the library JAR, API documentation and general guidelines.
 - ATS4AppModel-common.jar
- To use the plugin interface and classes in your own code, simply add the JAR in your project's **classpath**.
- The best starting point is the class **AbstractTestEngineAdapter**, which is the base implementation of **TestEngineAdapter** interface providing common functionality such as settings and event handling.
- Also, the **DefaultPlugin** class that extends **AbstractTestEngineAdapter** can be used as a base if default XSLT based script generation is desired.

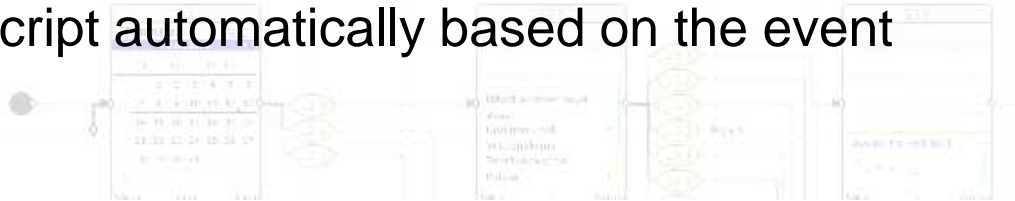


Deploying a plugin in ATS4 AppModel

- The plugin is deployed as a standard Java **JAR package** with required metadata defined in it's **manifest file**.
 - <http://java.sun.com/docs/books/tutorial/deployment/jar/>
- Manifest **attributes** for ATS4 AppModel plugins are
 - **ATS4AppModel-Plugin-Name** (required, "friendly name" of the plugin)
 - **ATS4AppModel-Plugin-Class** (required, fully qualified class name of the adapter)
 - **Class-Path** (optional, whitespace separated list of required libraries)
- Drop the plugin JAR in the **plugins** folder under the ATS4 AppModel installation folder. The folder may also contain additional libraries, only JARs with above attributes are treated as plugins.
- If plugin is based on `AbstractTestEngineAdapter`, it's settings are persisted automatically in the plugins folder. Settings file is named using the adapter class name, e.g. *AcmeTestEngineAdapter.properties*.

Keywords

- In ATS4 AppModel, the **test engine commands** are called *keywords*. Since different test engines may use different keywords, a plugin must typically be delivered with a set of keywords applicable with it.
- Keywords are defined in XML files located in the **resources** folder under the ATS4 AppModel installation folder. **Keywords.xsd** defines the format of the file.
- Multiple keyword files can be added, files are identified by the prefix *Keywords-*, e.g. "Keywords-AcmePlugin.xml"
- Each keyword may be associated with several **phrases** that are used when generating the test script automatically based on the event descriptions.



Localisation

- ATS4 AppModel supports language independent modeling so that a single model can be used with different language variants of the UI.
- Localisation of UI elements is based on usage of *variables* or *logical names* that are translated into actual text visible in the UI. For example, *#softkey_options#* may stand for "Options" (English) and "Valinnat" (Finnish), depending on the selected language variant.
- The localisation data is stored in the **localisation.txt** located in the **resources** folder under the ATS4 AppModel's installation folder. It can be changed or edited to match the UI that is being modelled.
- Localisation file is a tab separated text file, specifying the localisation variables on rows and their language variants on columns. The first line in the file defines the language variant names ("cell" 0:0 is empty).

General Settings

- ATS4 AppModel settings are stored in the file **settings.properties** located in the **resources** folder under the installation folder.
- Settings file can be edited freely with a text editor to fine-tune the settings that are not editable through the Settings dialog.

