HeD Schema Framework

Artifact Utility

# Overview

The HeD Schema Framework is a set of .NET assemblies that provide infrastructure and implementation technologies for manipulating HeD Schema Artifacts. One application of this framework is the HeD Artifact Utility, which provides semantic validation for HeD Schema artifacts, as well as translation services. This document provides documentation for using the HeD Artifact Utility to validate HeD Schema artifacts.

# Components

The HeD Artifact Verifier consists of the following components:

* HeDArtifactUtility.exe – Command-line executable utility.
* HeDArtifactUtility.exe.config – Configuration settings file for the utility.
* HeDEngine.dll – Core HeD Framework dll used by the utility.
* vMR.Model.dll – vMR model classes
* TestECAArtifact.xml – A test artifact for testing the verifier.
* Maps\HandlerMap.xsd – Schema definition for handler map files.
* Maps\ModuleMap.xml – Module map defining the modules plugged in to the verifier.
* Maps\TypeHandlerMap.xml – Specifies type handler implementation classes.
* Maps\VerificationHandlerMap.xml – Specifies verification handler implementation classes.
* Maps\TranslationHandlerMap.xml – Specifies translation handler implementation classes.
* Schema – Contains the HeD Schema files used to verify artifacts.

# Configuration Settings

Within the configuration file (HeDArtifactUtility.exe.config), there are two settings that configure how the verifier performs its function.

## Schema Location

The *SchemaLocation* configuration setting defines the directory in which the verifier can find the HeD Schema definition files. By default, this is set to the Schema folder, but can be set to any valid path:

<configuration>

<applicationSettings>

<HeDArtifactUtility.UtilitySettings>

<setting name="SchemaLocation" serializeAs="String">

<value>Schema\knowledgedocument.xsd</value>

</setting>

...

</HeDArtifactUtility.UtilitySettings>

</applicationSettings>

</configuration>

## Map Location

The *MapLocation* configuration setting defines the directory that contains all the map files for the verifier. The executable will load any file in the specified directory that has an *xml* extension. Files are expected to conform to the schema defined in *HandlerMap.xsd*.

By default, the value is set to the *Maps* sub-folder of the verifier directory:

<configuration>

<applicationSettings>

<HeDArtifactUtility.UtilitySettings>

...

<setting name="MapLocation" serializeAs="String">

<value>Maps</value>

</setting>

</HeDArtifactUtility.UtilitySettings>

</applicationSettings>

</configuration>

# Verifying an Artifact

To verify an artifact, run the HeDArtifactUtility.exe command-line executable, passing the path to the artifact to be verified as the only parameter to the executable:

C:\HeD>HeDArtifactUtility.exe "TestECAArtifact.xml"

Any errors encountered during the process will be output by the verifier. If the artifact is valid, a message will be output when validation is complete.