

Jostraca Design Note:

Version:

Author:

BuildResource

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To improve performance, templates should only be recompiled when necessary. The template should be recompiled only if any of the files used to construct the template CodeWriter have changed. It also includes the case where the CodeWriter must itself be compiled. In this case the compiled CodeWriter could be independently out of date with respect to the CodeWriter source, so that the CodeWriter needs recompiling.

The execution of the CodeWriter is a different matter, depending on whether template specific data model files have changed. This is not addressed here. Suggestion: each generation event has a set of actions (compile template, execute template, other?), each of which has a BuildResource.

A BuildResource describes an external resource, such as a file, which has the boolean property "Uptodate". If any resource is not uptodate, the compile event is triggered. How the value of uptodate is determined is left to the type of resource. BuildResources will however need additional data to function. For example, to check the CodeWriter source code last modified date against the template last modified date. This data (or how to get it using File objects) is provided to the BuildResource when it is created.

BuildResources can be composed into trees. A BuildResource is thus uptodate when all of its children are uptodate, and it itself is uptodate. The set of dependencies for an action be constructed from a root BuildResource which contains all the actual BuildResources or sets of BuildResources needed to perform the action.

A BuildResource has the following interface:

```
public boolean uptodate();  
public void add( BuildResource );  
public void toString();
```

(the toString is required for debugging)

Example:

FileBuildResource has two File fields: earlier and later. If earlier and later are not in the correct relation (earlier should have an earlier modification date than later), then uptodate is false. In the case where either of the files do not exist, then at user option, uptodate is false

UML:

