

# ClassLoader Extension for SLEEP Quick Reference

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## Purpose

This extension for SLEEP provides some useful functions which lets a user load classes from directories and jar/zip files which are not in the current classpath. For example:

```
use('classloader.jar', 'org.ululatus.sleep.bridges.ClassloaderBridge');
# add a jar file with database driver class
addClassPath('hsqldb.jar'); # HSQL Database Engine(http://sourceforge.net/projects/hsqldb)
addClassPath('JDBC.jar'); # jdbc sleep bridge:
# see http://jircii.hick.org/jirc/wwwboard.prl?MSGNO=592
useClass('JDBC'); # use JDBC class as sleep Bridge (implements sleep.interfaces.Loadable)
# now are the db functions available
# $db = dbConnect('org.hsqldb.jdbcDriver', 'jdbc:hsqldb:<dbname>', '<user>', '<password>');
```

## Functions

### function addClassPath( \$path )

returns true(1) if path is a valid directory of jar/zip file else false(0)

Adds a directory or jar/zip file to the ClassLoader, there is only one ClassLoader per script which could be responsible for an arbitrary number of jar/zip files and directories.

*Example:*      \$addDB = addClassPath('hsqldb.jar');  
                 \$addQuiz = addClassPath('quiz.jar');

### function addSysClassPath( \$path )

returns true(1) if path is a valid directory of jar/zip file else false(0)

Adds a jar/zip file to the SystemClassLoader,

*Example:*      \$addDB = addSysClassPath('hsqldb.jar');  
                 \$addQuiz = addSysClassPath('quiz.jar');

### function loadClass( \$classname )

returns a \$class\_ref on success else \$empty

\$classname has to be a fully-qualified java classname.

*Example:*      \$quizdb\_class = loadClass('quiz.db.Manager'); # loads driver from hsqldb.jar  
                 \$question\_class = loadClass('quiz.db.Question');

### **function useClass( \$loadable\_class\_ref )**

like use in SLEEP but takes a \$class\_ref as parameter which was previously loaded thru loadClass() function. This function instantiates the Loadable like use

*Example:*     \$loadable\_class = loadClass('ext.sleep.LoadableImpl');  
                  useClass( \$loadable\_class );  
                  Internally the stuff from \$loadable is added to the script's enviroment:  
                  loadable.newInstance();  
                  loadable.scriptLoaded( script );

### **function useLoadable( \$loadable\_instance )**

like use in SLEEP but takes a \$obj\_ref of a sleep.interfaces.Loadable implementation

*Example:*     \$loadable\_class = loadClass('ext.sleep.LoadableImpl');  
                  \$loadable = [\$loadable\_class newInstance];  
                  useLoadable( \$loadable );  
  
                  Internally the stuff from \$loadable is added to the script's enviroment.

### **function addLibraryPath( \$libdir ) [ or: addBinaryPath( \$libdir ) ]**

adds \$libdir to java.library.path

*Example:*     addLibraryPath( 'c:\programs\jircii\ac' );

### **function isLibraryPath( \$libdir )**

returns true(1) if \$libdir is in java.library.path

*Example:*     if ( !-istrue isLibraryPath( 'c:\programs\jircii\ac' ) ) {  
                  addLibraryPath('c:\programs\jircii\ac');  
                  }

### **function loadLibrary( \$library )**

tries to load the library \$library  
returns true(1) on success else false(0)

*Example:*     loadLibrary( 'ac\_java' );

## **Usage**

**use( '[path/to/]classloader.jar', 'org.ululatus.sleep.bridges.ClassloaderBridge' );**