The Brahma Project Challenge

Design Documentation

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## Module Decomposition Diagram & Dependency Diagram

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The design for the Brahma Project consists of three distinct packages:  The Plugin package, the Control package, and the Foundation package.  The Plugin package is self-explanatory -- it contains the abstract definition for plugins, which the Control layer interacts with.  The Control layer manages the current UI, and manages the lifecycle of Brahma plugins.  The Control layer interacts with the Foundation layer, which details the system’s interactions with files stored on the system, such as detecting and accessing available plugins, and reading configuration data from the available configuration file.  
  
Inside the Control layer there is the PluginCore and the Launcher.  The Plugin contains the high level logic which interacts the panels it is presented by the plugins, and translates foundational data for display on the UI.  The Launcher deals with the DependencyManager and WatchDir to properly present the UI with useable plugins. The Dependency manager is a singleton which is retrieved through the DependencyRetreiver.

The Foundational layer contains logic for detecting and accessing plugins – the WatchDir class, and for resolving any plugin dependencies prior to loading them for user use. It also contains logic for reading and writing to the program configuration, the Configuration module.

## Class Diagram



Methods:

Plugin:

getId()  
            setId()

Layout()

dependenciesResolved()

setDependenciesResolved()

getDependencies()

addDependency()  
DependencyManager:  
            addPluginToLoadedPlugins()

areDependenciesResolved()

clearDependencies()

recheckAllDependenciesAndGetNewlyResolved()

removePluginFromList()

DependencyRetreiver:

getManager()

WatchDir:

processEvents()

ConfigurationManager:

getInstance()

getAllPropertyNames()

getPropertyValue()

setProperty()

resetColor()

savePropertyFile()  
Launcher:  
 loadBundle()  
 unloadBundle()  
PluginCore:  
 addPlugin()  
 removePlugin()

ConfigurationAccesser:

getBackgroundColor();

setBackgroundColor();

getPluginPath();

setPluginPaht();

LayoutAccesser:

getRightPanel();

setRightPanel();

getBottomPanel();

setBottomPanel();

## Interaction Diagram

Update the list of plugin



Launch Plugin

