Mojave: a Cactus Eclipse plugin
Richard Guidry †‡, Yaakoub El Khamra †, Gabrielle Allen *†
* Department of Computer Science LSU, †Center for Computation & Technology CCT at LSU

The Cactus Framework
- Interactions are text based
- Accessed at command prompt via GNU Make
- CVS is the standard storage medium
- Source trees may consist of modules from different repositories

Mojave
- Allow Cactus developers to benefit from existing Eclipse tools
- Provide new tools
- Facilitate acclimation
- Decrease perceived formidability

Mojave Release Iterations
- Three successive release iterations
  - 1. Basic Cactus Integration
  - 2. Cactus Development Tool Suite
  - 3. Cactus Execution & Debugging

Basic Cactus Integration (1)
First Iteration
- Cactus Source Structure Integration
- Thorns and Arrangements are required to be located specifically
- Each Thorn has a specific directory structure
- Possibility for heavy CVS repository mingling

Basic Cactus Integration (2)
First Iteration
- Cactus source sets and their unique needs are handled by a Mojave Project.
- Manages project data that is specific to Cactus.

Basic Cactus Integration (3)
First Iteration
- Thorns need to be easily checked out from various CVS repositories into the same project in Eclipse
- Dependency concerns

Basic Cactus Integration (4)
First Iteration
- Cactus Make Commands
- Acquire advantages of using a GUI
  - Command Completion and Suggestion
  - History
  - New text commands that access Eclipse functionality
- Catchitches Shell View [ref. Nachitches]
  - Shell console for Mojave
  - Supports enhanced functionality in addition to wrapping calls to make

Basic Cactus Integration (5)
First Iteration
- Catchitches Shell
  - Implement its enhancements over the Make command system
  - Tree pattern matching structure, definable in metacode.

Basic Cactus Integration (6)
First Iteration
- Shell Commands
  - checkout thorn search:TestThorn
  - checkout arrangement
cvs://pservver.user@host.org/repo/Arrang
  - Note: “checkout” command from make is overridden.
  - checkout thornlist http://cactus.host.com/list.th
  - Any Cactus make arguments

Cactus Development Tool Suite
Second Iteration
- The Second Iteration will further enhance the Cactus Experience
  - Syntax highlighting for Cactus specific file types
  - Cactus style documentation parsing
  - GUI usable documentation generation
  - Automatic documentation display

Cactus Development Tool Suite
Second Iteration
- GUI Editors
  - Configurations
  - Thorn Lists
  - Parameter Files

Cactus Execution & Debugging
Third Iteration
- Integrate with other Eclipse plug-ins which enable debugging functionality.
- The concrete shape of this release iteration is still attaining form.
- Check back with us for news regarding the third release iteration.

August 17, 2006