

# GumTree 1.4.x Project Plan

## Introduction

This document lays out the development priorities and plans for the GumTree software version 1.4. The aim of this plan is to provide an overview of works that are committed in the current development iteration cycle. This is a living document and is subject to change based on the project priority.

## Release Schedule

The deployment date of GumTree software for individual instrument is depended upon reactor cycle and instrument maintenance schedule. However, the release date for the GumTree Platform (or the base NBI target for development) should be fixed, so that the development process is agile (with short iteration) and predictable.

At the end each final release, a change log and brief new feature description must be supplied with the artifacts. After each iteration, a new target will be produced for internal development use, and all developers need to sync with this latest target. Developers will need to meet together for quick briefing on the new features introduced in each iteration.

Each release is set to 4 months long, with 1 week planning, four 3 week long iteration, and 3 week endgame (final integration test, documentation and release work). All phases may be adjustable to fit operation needs, but we usually do not encourage this.

**Planning:** 16th Nov 2009 - 20th Nov 2009 (1 week)

**Iteration 0:** 23th Nov 2009 - 11th Dec 2009 (3 week) - version 1.4.0

**Iteration 1:** 14th Dec 2009 - 15th Jan 2010 (5 week) - version 1.4.1

**Iteration 2:** 18th Jan 2010 - 5th Feb 2010 (3 week) - version 1.4.2

**Iteration 3:** 8th Feb 2010 - 26th Feb 2010 (3 week) - version 1.4.3

**Endgame:** 1st Mar 2010 - 19th Mar 2010 (3 week) - version 1.4.4 (final version for 1.4.x release)

## Instrument Specific Themes

An instrument theme is a high level task description on what use requirement we need to fulfil for this release of GumTree. Those requirements come from instrument scientists meeting, instrument maintenance jobs (software bug fixes), and refactoring tasks for making software maintainable.

### **Wombat**

- **Customised batch editor.** Introduce the workflow based visual batch editor to Wombat. This version will have higher interactivity such as loading and saving portion of scripts ([GUMTREE-102](#), [GUMTREE-339](#)).  
✓
- **DAQ UI improvement.** Introduce new UI improvement for helping the DAQ area in Wombat ([GUMTREE-100](#), [GUMTREE-101](#)).  
✓
- **Efficiency map perspective.** Create a UI block (view) for user to make efficiency map file ([GUMTREE-341](#)).  
✓
- **Refine reduction algorithm.** Make the reduction algorithm capable of loading multiple efficiency map files ([GUMTREE-136](#), [GUMTREE-342](#), [GUMTREE-338](#)).  
✓
- **Wizard of initialising an experiment.** Provide button to open wizard for creating new experiment, which includes ([GUMTREE-343](#))  
✓
  1. switch user.
  2. create profile folder for user, all data will be stored there.

### **Echidna**

- **Provide User's Guide.** Make a User's Guide for Gumtree-Echidna Experiment UI and Analysis UI ([GUMTREE-344](#)).

- **New Echidna dashboard.** ([GUMTREE-418](#)) ✓

## Kowari

- **New analysis workbench.** The data analysis feature in Kowari will be separated to a new product, such that the experiment workbench will be more stable for normal operation ([GUMTREE-111](#)). ✓

## Quokka

- **Online data reduction.** ✓
- **Support new hardware.** New GumTree device will be written to support newly fixed hardware such as beamstop ([GUMTREE-105](#)). ✓
- **File association.** New experiment and report model to propagate empty beam and empty cell file association ([GUMTREE-106](#), [GUMTREE-108](#)). ✓
- **Test the triggered analysis algorithm.** Make test for the new analysis algorithm that gets triggered by the experiment model ([GUMTREE-346](#)). ✓

## Platypus

No scheduled plan for Platypus in this version.

## Pelican

- **Experiment workbench construction.** In this version a generic GumTree instance will be created for Pelican. It will only contain the branding plug-in with no instrument customisation ([GUMTREE-97](#)). ✓

## NESCA

No scheduled plan for NESCA in this version. However, we recommend the NESCA programmers to test the final release target to ensure they are capable on handling new target release.

## Generic Component Themes

Platform component themes are derived to support themes and requirements of individual instrument. Any features that are added to the platform level (includes GumTree platform, data acquisition, data analysis and NBI common components) will benefit all instruments.

### GumTree Platform (Runtime, Core, UI, Server, Workbench APIs)

- **New generic workflow editor framework.** ([GUMTREE-102](#)) ✓
- **ReST based simple data access manager.** ([GUMTREE-99](#), [GUMTREE-103](#)) ✓
- **2nd generation dashboard.** The new dashboard will have better layout support, simpler XML markup and support the new data access manager via ReST style ([GUMTREE-98](#)). ✓
- **Jython support.** Our current choice of scripting language within GumTree is cPython, but it is platform dependent. To overcome this problem, we will offer Jython as the alternative ([GUMTREE-130](#)). ✓
- **Local persistence framework.** A new simple persistence framework in place to support future application crash recovery features ([GUMTREE-355](#)). ✓

### Data Acquisition (SICS Proxy)

- **New generic and extensible data acquisition perspective.**
- **New batch manager.** A new batch manager that handles queue dispatch, persistence, and log display ([GUMTREE-134](#)). ✓
- **Current SICS proxy improvement.** ([GUMTREE-110](#)) ✓
- **SICS UI improvement.** ([GUMTREE-104](#), [GUMTREE-150](#)) ✓

### Data Analysis (Numeric, Kuranda, Cicada and Kakadu)

- **Generic viewer for loading processor type of algorithms.** ([GUMTREE-345](#)) ✓

- Plot a set of 1D data in color strips mode. ([GUMTREE-340](#)) ✓

## **NBI Common (HM Adaptor, Common DRA, JEPP)**

- **Dashboard upgrade to all instrument.** Adopt the new dashboard API for all instrument

## **Infrastructure Themes**

### **Build System**

- **New application support.** The build system will include the Pelican Experiment Workbench and Kowari Analysis Workbench ([GUMTREE-97](#)). ✓
- **Standalone installer.** GumTree will provide Windows installers for supporting running in standalone mode ([GUMTREE-135](#)). ✓

### **Website**

No scheduled action plan for website.

### **Others**

- **JIRA refactoring.** ([GUMTREE-109](#)) ✓