# Gratia – Condor Integration Document

## Overview

Gratia is the resource accounting software developed and maintained by the Open Science Grid. It consists of two major components, the probe that collects the resource usage, and the server that aggregates usage from multiple probes. The Gratia – Condor integration will only include the probe component.

The Graita probe will be used by Bosco and Campus users. It will provide accounting information to the Open Science Grid. The usage information will benefit the users as they will be able to graphically view their usage. The usage information will benefit both the OSG and Condor teams by providing accounting information from users that can be used in development priorities and reports to funding agencies. For example, the Bosco team will use the data in reports to funding agencies and to view usage for any problems that develop for users. Bosco users may use the official gratia website to view their usage, which is currently in an early version: <http://gratiaweb.grid.iu.edu/gratia/pilot> . Note that users will be given an individual URL where they can view only their data rather than the aggregated the data currently shown.

## About the Condor Gratia Probe

The Condor Gratia probe is a small python script (and associated libraries) that parse the files created by Condor when the PER\_JOB\_HISTORY\_DIR configuration variable is provided. The probe is run periodically, typically every 15 minutes. The probe then uses an http PUT to the central gratia server hosted at Fermilab’s High Availability Computing Center.

The probe has safety mechanisms such as automatic rolling of log files, deleting after X days. If the PUT doesn’t work, for whatever reason, it will give up quickly and try again on the next iteration.

## Integration

A snapshot of the Condor Gratia probe will be placed into the condor\_contrib directory of the source. It will be installed into the libexec directory. There will be an additional simple script, gratia\_run (or something like that) which will run gratia periodically. The gratia\_run will be managed by the condor\_master as a daemon in the DAEMON\_LIST. The gratia\_run will also extract configuration variables from the Condor configuration such as GRATIA\_PROBENAME and GRATIA\_COLLECTOR to configure the probe before running.

Bosco installation will set most of these variables to sane defaults at install. The user can overwrite the defaults by adding the variable to condor\_config.local.