Technical Specification / Schedule
Event Logging System for KORA

Team 5: MATRIX
CSE 498, Collaborative Design

Chung-Hi Kim
Dustin Manning
Chris Samiadjji-Benthin
Jared Wein

Department of Computer Science and Engineering
Michigan State University
Spring 2008
Project Overview

• Archive logging of MATRIX’s KORA project
• Compute checksums on files in database
• Distributed Computing
Functional Specifications

- Must be platform independent
- Scalable to 30 workers
- Use standard messaging protocol
- Configurable (Scheduling, Checksum methods, etc.)
System Components

• Hardware Platforms
  – Standard Personal Computer
  – Server
  – Ethernet Connection

• Software Platforms / Technologies
  – Python 2.5.1
  – Python Libraries (ADOdb, SimpleXMLRPCServer, Hashlib)
  – OS/ Database Independent
Architecture Illustrated

1. Manager sends file paths to Worker
2. Worker requests files
3. Worker receives file from disk array
4. Worker replies with checksums

File Path Server / Manager

Matrix Event Log System

Disk Array
Risks

- Distributed Computing
  - Have not yet chosen a method to use
  - Will continue experimenting through the week
- KORA is being rewritten
  - Mentor is unclear on final shape of archive
  - Will continue to keep in close contact with client
- Performance
  - Estimated 28 days to compute checksums for archive
  - Distributed computing may be the answer
Project Schedule

1. Distributed Framework
   a) Goal: Make decision on which framework to use
   b) Deadline: Feb 4

2. Begin coding alpha
   a) Goal: Code distributed portion, DB interface
   b) Start Date: Feb 4

3. Command Line-Distributed
   a) Goal: Distributed portion works on command line
   b) Deadline: Feb 18

4. Testable Database Interface
   a) Goal: Database interface able to test data set
   b) Deadline: Feb 18
Project Schedule

1. Web GUI
   a) Goal: Create GUI for configuration, running jobs
   b) Start Date: Feb 25 Deadline: Mar 17

2. API Documentation
   a) Goal: Create API documentation for client
   b) Start Date: Feb 25 Deadline: Mar 17

3. Project Video
   a) Goal: Create project video
   b) Start Date: Mar 17 Deadline: Apr 21

4. Benchmarking data
   a) Goal: Collect benchmarking data for scalability
   b) Date: Apr 7