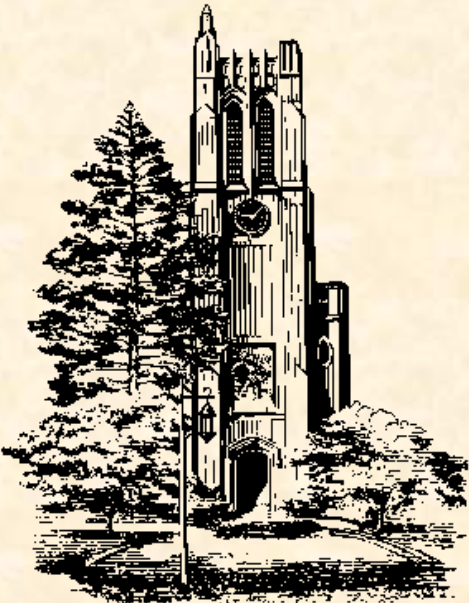# Technical Specification / Schedule Event Logging System for KORA

Team 5: MATRIX

CSE 498, Collaborative Design

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Project Overview

- Archive logging of MATRIX's KORA project
- Compute checksums on files in database
- Distributed Computing

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Functional Specifications

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

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System Components

- Hardware Platforms
  - Standard Personal Computer
  - Server
  - Ethernet Connection
- Software Platforms / Technologies
  - Python 2.5.1
  - Python Libaries (ADOdb, SimpleXMLRPCServer, Hashlib)
  - OS/ Database Independent

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Architecture Illustrated

Matrix Event Log System

FilePathServer / Manager

Disk Array

4. Worker replies with checksums

2. Worker requests files

1. Manager sends file paths to Worker

3. Worker receives file from disk array

Worker

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

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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

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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

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