

R·I·T



**ITS Graphical Report Maker**  
High Level  
Requirements



**4/3/2004**  
**Team JACT Software**  
**RIT Software Engineering Department**

**Version 1.1.0**

**Revision History**

| <b>Revision</b> | <b>Date</b> | <b>Author</b>              | <b>Section</b> | <b>Comments/Changes</b> |
|-----------------|-------------|----------------------------|----------------|-------------------------|
| 1.0.0           | 16 Dec 2003 | C. Tam                     | All            | Initial Revision        |
| 1.1.0           | 16 Dec 2003 | A. Buehler &<br>C.T. Chiou | All            | Proofread               |
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## 1. Project Overview

### 1.1 Scope

The purpose of this document is to describe the high level requirements for the ITS Graphic Report Maker system. This document provides the objectives that the system will achieve by the end of the project cycle.

### 1.2 Audience

This high-level requirements document is intended to be used by members of the project team that will implement and verify the correct functionality of the system. In addition, this document represents a consensus on how the system will operate between this party and the ITS staffs that are responsible for this project, which will be the main contact for the project team.

- Emilio DiLorenzo, ITS, Director of Technical Support Services
- Mark J. Kimble, ITS, System Management and Tools Technical Support Services
- Patrick Saeva, ITS, Program Manager
- Jim Vallino, Faculty Advisor
- Stephanie Ludi, Faculty Advisor
- Adam Buehler, Development Team
- Cesario Tam, Development Team
- John Myers, Development Team
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### 1.3 Background

RIT ITS Systems Management is responsible for the generation of real time data, historical data, graphs plus reports on the capacity, availability and responsiveness of ITS supported services. This data is used to show ITS systems performance to customers, support staff and RIT leadership to assist in making technical and business related decisions. Currently ITS utilizes many commercial off the shelf (COTS) products to perform these tasks and even though these tools are adequate for technical and engineering staff use, they lack ability to show system wide status and performance in a method deliverable to end-users and management.

### 1.4 Objectives

- To provide the ITS staff with a new medium to generate graphical reports for upper management review and technical analysis.
- To provide the ITS staff the ability to generate graphical reports using the data from the provided database.

- To allow the ITS staff around-the-clock, online access to all reports that have been prepared in advance.

## **2. Project Requirements**

### **2.1 Product Functionality**

- The system shall allow the user the ability to enter queries on the database in order to retrieve data about certain aspects of network performance.
- The system shall allow the user the ability to use data retrieved from database to generate graphical reports that may include multiple functions.
- The system shall allow the user the ability to modify the attributes of the graph, as they pertain to the visual representation of the graph.
- The system shall allow the user the ability to export any graph generated to an image file of the selected format.
- The system shall allow the user the ability to export any report data that was generated by statistical analysis to a .CSV file.
- The system shall have the ability to perform statistical analysis on data retrieved from the database before it is used to generate a graph.
- The system shall provide a scriptable interface to execute predefined queries.

### **2.2 User Classes and Characteristics**

There will be only one user class for the system. This user class will have access to all functionality available.

### **2.3 Operating Environment**

- The Graphical Report Maker server shall operate on a computer that is running Unix and has MySQL installed.
- The Graphical Report Maker shall operate with commonly used browsers.

### **2.4 Assumptions and Dependencies**

- The physical database and database schema are being provided by the ITS and the Graphical Report Maker will depend on that particular database to function properly.
- The actual graphing algorithm of the system has been moved to an external package that the ITS department will help acquiring.

## **3. External Interface Requirements**

### **3.1 User Interfaces**

The user interface of the Graphical Report Maker will be implemented in a web application format. The client will therefore be accessible through any commonly used web browser.

### **3.2 Software Interfaces**

The Graphical System Maker provides a scriptable interface for user to access the system on the actual computer that is running the server.

## **4. Non-Functional Requirements**

### **4.1 Performance**

- Functions shall be performed in a timely manner.

### **4.2 Security**

- The system shall use LDAP authentication.

### **4.3 User Documentation**

- User Manual shall be created for the web client.

## **5. Outstanding Issues**

- Actual Graphing Formats: There is no specification for what the graphing formats shall be
- Scriptable Interface: There is no specification for what the scriptable interface shall be
- Performance: There is no guidelines for the performance constraints