

# Software Requirements Document for CyBiquity

Author: **CyBiquity**

Alex

Gavin

Henri

John

Version	Date	Author	Change
0.1	Nov 8, 200	Alex	Initial Document
0.1.1	Nov 9, 200	Alex	Beta Document - Still need Diagrams

# Table of Contents

<b>Introduction .....</b>	<b>4</b>
Purpose.....	4
Scope.....	4
Definitions, acronymns, abbreviations.....	4
References.....	4
Overview.....	4
<b>Overall Description.....</b>	<b>5</b>
Product Perspective.....	5
Product functions.....	6
User characteristics.....	6
Constraints.....	6
Assumptions and Dependencies.....	6
<b>Specific Requirements.....</b>	<b>7</b>
External Interface Requirements.....	7
FEATURES.....	7
ISU Dining.....	7
Design Constraints.....	11
Software System Attributes.....	11
Other Requirements.....	11



# Introduction

## 1.1 PURPOSE

To outline the software requirements of Cybiquity.

## 1.2 SCOPE

This current SRS only details the requirements governed by the member of group three.

## 1.3 DEFINITIONS, ACRONYMS, ABBREVIATIONS

Term	Description
Cybiquity	A System of commands that users can use with the FireFox plugin Ubiquity.
Ubiquity	A FireFox Plugin that adds the functionality of a verb based command line.
Command List	A list of commands that Ubiquity can execute.
Hotkey	The key combo to call the Ubiquity command line.
Command Name	The name of a command that can be called in Ubiquity.
Preview block	a section of the Ubiquity interface that shows a command preview

## 1.4 REFERENCES

<http://labs.mozilla.com/2008/08/introducing-ubiquity/>

<https://wiki.mozilla.org/Labs/Ubiquity>

<http://www.toolness.com/wp/?p=54>

## 1.5 OVERVIEW

This document will review the Cybiquity system. This document will list the features of the Cybiquity System.

## Overall Description

The Cybiquity System will allow ISU users the experience ISU network in a more web 2.0 fashion than ever before. Starting with dynamically creating a set of ISU commands, and integrating them with users Ubiquity plugin. The Cybiquity System will then allow users to perform every day ISU tasks with ease and great interconnectivity.

### 2.1 PRODUCT PERSPECTIVE

The Cybiquity System VS QuickSilver

Both The Cybiquity System and QuickSilver use a command line to run task and navigate, the major difference lies in the fact the QuickSilver is more of an Operating System based application and The Cybiquity System is a pure Web 2.0 based application. Any user that is familiar with QuickSilver will be very comfortable with the Cybiquity System.

#### 2.1.1 Concept of Operations

The Cybiquity System has two pre-requirements before users can use it. First they must download the FireFox Plugin. Second they must visit our site <> and select what tools to upload to their Command List. Once user select the commands they want, they can start using commands provided by group 3!

There will be simple commands like “stuorg” that will allow users to quickly search the stuorg website. Some commands will be on start up, e.g. login to webmail, gmail, and digg. Some commands will be more complicated and will rely on web crawlers hosted on our server. Most complicated commands will interact with our servers to get data.

#### 2.1.2 Major User Interfaces

The Major Interface of the Cybiquity System will be the FireFox Plugin Ubiquity. <Add Screen shots>

### 2.1.3 Hardware Interfaces

Keyboard

### 2.1.4 Software Interfaces

FireFox plugin, Ubiquity.

## 2.2 PRODUCT FUNCTIONS

// First draw the overall use-case diagram and give a brief description

// then – describe the major use-case

### 2.2.1 Example use case

#### 2.2.1.1 ISU Dining

#### 2.2.1.2 Student Organization

#### 2.2.1.3 ISU Schedule Module

#### 2.2.1.4 On login

#### 2.2.1.5 Access Plus map it

#### 2.2.1.6 ISU Bookstore

#### 2.2.1.7 ISU Calender

## 2.3 USER CHARACTERISTICS

Users will be more Web 2.0 then the usual student.

## 2.4 CONSTRAINTS

The restriction of the languages we use, javascript, python

## 2.5 ASSUMPTIONS AND DEPENDENCIES

Users computers will have a computer that is networked.

## Specific Requirements

### 3.1 EXTERNAL INTERFACE REQUIREMENTS

#### 3.1.1 User Interfaces

##### 3.1.1.1 The Ubiquity command line, FireFox

#### 3.1.2 Hardware Interfaces

##### 3.1.2.1 Keyboard and mouse

#### 3.1.3 Software Interfaces

##### 3.1.3.1 The Ubiquity command line, FireFox, whatever Operating System

### 3.2 FEATURES

#### ISU Dining

In general, this collection of commands allows a user to quickly access information about ISU Dining from any page in their web browsers. Some commands include:

A command, dining-menu that allows the user to search for a dining center's menu

The format is dining-menu <place\_str>, where <place\_str> is the dining center to get the menu for.

A command, dining-hours that allows the user to search for a dining center's hours.

The format is dining-hours <place\_str>, where <place\_str> is the dining center to get hours for.

A command, dining-prices that allows the user to search for a dining center's prices

The format is dining-prices <place\_str>, where <place\_str> is the dining center to get prices for.

A command, dining-info that allows the user to search for general information about a dining center

The format is dining-info <place\_str>, where <place\_str> is the dining center to get information for.

A command, dining-email that allows the user to email the person in charge of a dining center

The format is dining-email <place\_str>, where <place\_str> is the dining center to contact.

This command without arguments allows the user to email the person in charge of all dining centers.

#### ISU Student Organizations

In general, this collection of commands allows a user to quickly access information about ISU Student Organizations from any page in their web browsers. Some commands include:

A command, stuorg that allows the user to search for student organizations.

The format is `stuorg <search_str>`, where `<search_str>` is the organization/value to search for. If `<search_str>` is the name of an organization, then load that organization's entry in the browser.

If `<search_str>` is not the name of an organization, then perform a search on `<search_str>` and load the results in the browser.

A command, `stuorg-manage` that enables the user to automatically log in to manage his/her organizations.

The format is `stuorg-manage`.

A command, `stuorg-email` that enables the user to email an officer of a student organization.

The format is `stuorg-email <position_str> <org_str>`, where `<position_str>` is the officer of the organization and `<org_str>` is the name of the organization.

Possible values of `<position_str>` include president, treasurer, secretary, adviser, etc.

The command without arguments allows the user to email the person in charge of student organizations.

## ISU Schedule Module

In general, this collection of commands allows a user to quickly access information regarding class scheduling. It enables the user to determine if a class is open, get class information, course websites, and if there is an accessplus module, enable the user to add and drop classes without having to traverse through webpages to determine if a class is open or not. The following arguments are available, granted the user used 'schedule-tools' as the first command.

- `get <arg1>`

Gets all sections for class `<arg1>`. Format of has to match the format from access plus. The information of each class is as follows:

- Section number
  - If the class has open seats
  - Remaining seats
  - When the class is
  - Instructor
  - A hash ID for use of the add command
- `add <arg1>`

Adds `<arg1>` class (a hash ID) to your schedule, if it was not possible, it will show an error message.

- `drop <arg1>`  
Drops `<arg1>` class (a hash ID) from your schedule. If it was not possible, or that class doesn't exist, it will show an error message.
- `info <arg1>`

Opens a new browser and show the class from the program of study.

- `Transcript`  
Shows a link to your transcript via access plus

Ex. 'schedule-tools get cs319'  
'schedule-tools add cs319'

Features that can be added in the future would be an algorithm to determine dependencies of classes from access plus, and will print what classes are eligible for you, and which classes you need to take to graduate. However, the scope is still being defined.

## ISU Search Module

This module will directly interface with the ISU google search appliance. However, it will add ability to search subsets of websites. The following arguments are allowed, granted the user used 'google' as the first command.

- search SEARCH\_STRING@[0,1]SUBSET\_STRING

where SEARCH\_STRING is the string to be searched. It follows normal google formatting rules, including quotations.

SUBSET\_STRING is the subset of websites to search for. For example, if SUBSET\_STRING was 'software engineering', then this command will try to find all websites related to SEARCH\_STRING under the software engineering google appliance. Otherwise, it will treat it as another keyword. The @[0,1] means @ can be present zero or one times. Otherwise, it will parse it fully and use the full string in the google search. If @ is part of the string to search, then use \@ instead.

Ex. 'google program of study@computer engineering  
'google anime club'  
'google hbai\@iastate.edu'  
'google "hello world"@computer science

## On Login

In general this on firefox load will login the user to a selection of web services.

a command "choose services" that will allow the user to set up different accounts to auto login to

We will have to come up with an interface to input the data

We will have to come up with a way to secure the data

An on firefox load command that will auto login the user into selected web services. This data will have to be secure some how.

Each new service will have its own tab.

## **Access Plus map it**

In general this collection of commands allows the users to select there classes from access plus and map them using google maps.

a command, map it that allows the user to google map there classes.

The format is ISUmapit <selection>. The selection will be what the user selects.

The map will be displayed using google maps, (may be able to use ISU mapping site)

The icon will be a general map of isu

## **ISU Bookstore**

This command group allows the user to quickly view books available for a certain class or certain classes.

Commands:

books for <selection>

This command allows the user to select text on a web page that contains the name of a class at ISU or a list of classes. When the command is executed, the Ubiquity bar presents a drop-down consisting of a list of books. This list is comprised of items primarily from the ISU Bookstore and Campus Books Store, but could also include books from Amazon or Chegg. The user can then select an item in the drop-down and send the link to their email.

## **ISU Calendar**

This command group allows you to interface with the calendars available at event.iastate.edu.

Commands:

whats happening on <date>/<selection>

This command allows the user to view a list of events from the ISU calendars transpiring on a given date. The user either inputs the date in the command explicitly, or can have a date selected on the web page and run the command with no arguments.

The list of events is presented as a drop-down from the Ubiquity bar. The user may then navigate through the events in the drop-down. If we implement connectivity to Google Calendar, it would then be possible to add events from this drop-down to the user's Google Calendar.

Variants:

The user can run the command using absolute dates (e.x., September 25), or by using relative terms, such as “today” or “tomorrow”, as follows:

```
whats happening today
```

### **3.3 DESIGN CONSTRAINTS**

### **3.4 SOFTWARE SYSTEM ATTRIBUTES**

#### 3.4.1 Reliability

3.4.1.1 Each tool shall be fully tested and will run with no errors

#### 3.4.2 Availability

3.4.2.1 The Cybiquity System will be available for all FireFox users.

#### 3.4.3 Security

3.4.3.1 The Cybiquity System will have low impact and be low cost.

#### 3.4.4 Maintainability

3.4.4.1 The Cybiquity System is a short term project and will be taken down before any maintenance is required.

#### 3.4.5 Portability

3.4.5.1 The Cybiquity System will be available on any platform that can run FireFox.

### **3.5 OTHER REQUIREMENTS**