**1. Introduction**

**1.1 Purpose**

This document describes the requirements for the design of a website traffic, activity monitoring and reporting program. The requirements will be described in a use case format identifying the basic system flow.

**1.2 Definitions, Acronyms and Abbreviations**

**2. System Requirements**

**2.1 Actor(s)**

General Actor(s) – General program user who is a member of at least one of the following actor groups: IT Tech, General Manager, Engineer, Marketer, Accountant.

IT Tech(s) – Program user responsible for the ­creation and management of user accounts and permissions within the program.

General Manager(s) – Program user responsible for making decisions about the website’s layout and function based on department reporting, and overall data collection and projections.

Engineer(s) – Program user responsible for initial and progressive website design changes based on website user activity.

Marketer(s) – Program user responsible for retrieving and analyzing user demographic data and advertising data.

Accountant(s) – Program user responsible for retrieving and analyzing website sales data.

**2.2 High level Flow**

To perform this task the program user will need to log into their program account, access data or a subset of data from the website’s activity logging database, generate a visual representation of the data (lists, graphs, charts, etc…), and analyze the data to either identify possible beneficial changes to the website, or generate predictive projections of future website activity.

**2.3 Basic use cases**2.3.1 Log-in  
2.3.2 Create program user account and permissions  
2.3.3 Edit program user account and permissions  
2.3.4 Retrieve and display general website activity data  
2.3.5 Retrieve and display projection  
2.3.6 Generate and display a cross section of multiple projections  
2.3.7 Retrieve and display website button click activity data  
2.3.8 Retrieve and display website 404 error page visits data  
2.3.9 Generate and display projection based on website design change  
2.3.10 Retrieve and display website user demographic data  
2.3.11 Retrieve and display website access through ad click data  
2.3.12 Retrieve and display website ad clicks for external sources data  
2.3.13 Generate and display projection based on website marketing change  
2.3.14 Retrieve and display website sales data  
2.3.15 Generate and display projection based on website store change  
2.3.16 Log-off  
2.3.17 Automatic idle user log-off  
2.3.18 Configure System to connect to website

**2.4 Expanded use cases**

**2.4.1 Log-in**

**Use Case:** Log-in

**Scope:** Program User Accounts and Reporting Program

**Level:** User Goal

**Intention in Context:** The intention of the user is to log-in to their program account.

**Primary Actor:** General Actor

**Main Success Scenario:** 1. User opens the reporting software.  
 2. User provides credentials to the system.  
 3. The system verifies credentials and logs the user into their account.

**Extensions:** 2a. User cancels log-in: program is closed.  
 3a. System ascertains that the credentials given are invalid:  
 3a.1. System informs the user; Use case continues at step 2.

**Notes:**

**2.4.3 Create program user account and permissions**

**Use Case:** Create program user account and permissions

**Scope:** Program User Accounts and Reporting Program

**Level:** User Goal

**Intention in Context:** To provide the ability to the IT Tech actor to create new user accounts to access the system.

**Primary Actor:** IT Tech

**Main Success Scenario:** 1. IT Tech provides list of permissions, name and password.  
 2. The system saves/records this information in the website database.

**Extensions:** 1a. IT Tech provides user account information that already exists.  
 2a. The system checks the systems user entity table for a duplicate record.  
 3a.1. The system informs user; Use case continues at step 1.

**Notes:** Viewing data as other users (previewing), could be added later.

**2.4.4 Retrieve and display general website activity data**

**Use Case:** Retrieve and display general website activity data

**Scope:** Reporting Program and Website Activity Logging Database

**Level:** User Goal

**Intention in Context:**

**Primary Actor:** General Manager

**Main Success Scenario:**

**Extensions:**

**Notes:**

**2.4.7 Retrieve and display website button click activity data**

**Use Case:** Retrieve and display website button click activity data

**Scope:** Reporting Program and Website Activity Logging Database

**Level:** User Goal

**Intention in Context:** The intention of the user is to retrieve and display button click activity data, or a subset of the data, based on search criteria.

**Primary Actor:** Engineer

**Main Success Scenario:**

1. User provides the system with search criteria\* for the desired data.
2. System uses the provided search criteria\* to request the desired data from the database.
3. The database returns the results of the search back to the system.
4. The system displays the information to the user.

**Extensions:**

1a. User cancels the operation: use case ends in failure.

2a. System cannot connect to the database:

2a.1. System informs the user: use case ends in failure.

3a. The provided search criteria\* does not apply to the database:

3a.1. The database informs the system.

3a.2. The system informs the user; use case continues at step 1.

4a. No results were returned by the database:

4a.1. The system informs the user; use case continues at step 1.

**Notes:**

\* Engineer specific search criteria to be decided at a later date.

**2.4.10 Retrieve and display website user demographic data**

**Use Case:** Retrieve and display website user demographic data

**Scope:** Reporting Program and Website Activity Logging Database

**Level:** User Goal

**Intention in Context:** The intention of the user is to retrieve demographic information for marketing purposes.

**Primary Actor:** Marketer

**Main Success Scenario:**

1. Marketer requests demographic information from the database.

2. System provides Marketer with demographic information.

3. Program creates graphical chart with relevant data.

**Extensions:**

1a. User cancels the operation: use case ends in failure.

2a. System cannot connect to the database:

2a.1. System informs the user: use case ends in failure.

**Notes:**

**2.4.14 Retrieve and display website sales data**

**Use Case:** Collect sales data

**Scope:** Users who are interested in knowing more information about the sales that may include but not limited to accountants and general managers.

**Level:** User Goal

**Intention in Context:** The intention of the user is to log-in to their account to view the website sales data.

**Primary Actor:** Accountant Actor

**Main Success Scenario:** 1. Accountant requests website sales information from database,  
 2. Program provides accountant with website sales data from database  
 3. Program produces graphical chart with database information.

**Extensions:** 2a. System cannot connect to the database:

2a.1. System informs the user: use case ends in failure.

2.b. System connects to the database

2.b.1. System returns valid information with website database information

**Notes:**

**2.4.18 Configure System to connect to website**

**Use Case:** Edit configuration of system to connect with the website activity logging database.

**Scope:** Reporting Program and Website Activity Logging Database

**Level:** User Goal

**Intention in Context:** To provide the capability to the system to access recorded analytic data located on the website activity logging database.

**Primary Actor:** IT Tech

**Main Success Scenario:** 1. IT Tech provides website database connection information.  
 2. The system validates connection information.  
 3. The system informs the user of success.  
 4. The system records this information for later use.  
 5. The system informs the user of success.

**Extensions:** 1a. IT Tech provides invalid website database connection information:  
 1a.1. The system fails to validate connection information.  
 1a.2. The system informs user; Use case continues at step 1.

2a. System cannot connect to the database:  
 2a.1. System informs the user: use case ends in failure.  
 2a.2. The system informs user; Use case continues at step 1.

**Notes:** During the validation of database connection information, the system should be creating the tables it will need in the future.