

**National Capital Region Drug Trend Mapping System**

**Statement of Scope**

**Prepared For**

**Sgt. Pat Poitevin, RCMP**

**Professor Edmund Strange**

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Submission Date: Monday November 15, 2010

**Project Authorization Sign-Off Sheet**

This paragraph provides the authorization for the project to proceed. Use a separate page in the document for this information.

Use the following format, inserting the required information as necessary.

I, Pat Poitevin, of the RCMP Drug and Organized Crime Awareness Service, certify that this Statement of Scope meets the project requirements. I have read and reviewed this document as prepared by Riftpoint Development and I approve the project for completion by the deliverable date of April 23, 2011.

I understand that the Computer Studies Department of Algonquin College is not a software development company, and as such cannot be regarded as being under contract to deliver a finished product.

I also understand that this project may be cancelled at any time by the Computer Studies Department of Algonquin College should the project group not meet the academic standards of CST8151 Software Design, Testing, and Quality Assurance or CST8160 Project.

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Sgt/Serg. Pat Poitevin Date

RCMP - Drug and Organized Crime

Awareness Service

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Riftpoint Developers, Project Leader

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**1. PROJECT INITIALIZATION**

**1.1 Introduction**

This is a Statement of Scope prepared by Riftpoint Development for The National Capital Region Drug Trend Mapping System sponsored by Patrice Poitevin, RCMP - Drug and Organized Crime Awareness Service. The project group leader is David Marcantonio, and the project team members are Luc Desjardins, Eric Dube, Tom Ferch, Luc Morin, Sean Reece. The project will proceed according to the project plan annotated in Appendix A and Appendix B Gantt charts, and have a completion date of April 23, 2011.

**1.2 Purpose of the Project**

This project aims to address the business needs of Sgt. Pat Poitevin and the Drug and Organized crime Awareness Service of the RCMP (hereto referred to as "the client"). The client wants a system to allow community partners to communicate with him and with each other about trends in drug use in the National Capital Region.

The client has been attempting to assess trends by making telephone calls to the community partners. This does not adequately address the needs of service providers, who need to have accurate information by geographical area. There is an opportunity to provide these community partners with up to date analysis of trends in drug use in the national capital region.

**1.3 Users of the Product**

The users of this system will include the client and community partners in the National Capital Region. The community partners who have agreed to participate in submitting information to the system will be able to create an account on the system then submit content and view reports. Community partners may have little computer experience, so the proposed system should be designed as user friendly as possible in order for it to be used with a minimal amount of training.

**2. APPLICATION AND DEVELOPMENT ENVIRONMENTS**

This section describes the required hardware and software requirements for both the development and implementation phases of the project.

**2.1. Application Environment of the Proposed System**

This section identifies both the hardware and the software that must be in place in the operational (non-testing) environments and configuration details.

**a. Hardware Requirements**

The client will need to provide an ASP.net hosting service for implementation of the completed system. This service can be acquired from many Canadian hosting companies for a reasonable monthly fee which the client has agreed to cover in full. A host can be recommended to the client on request. The service must be acquired at least one week from the implementation date. If the project team does not have access to this service this may introduce a risk of having the implementation date of the project pushed back.

**b. Software Requirements**

The client will not have to provide any software to be used as all software used will be either open source or developed by the project group.

**c. Data Requirements**

The client will supply the project group with the zones used by the Gang Prevention department of the RCMP to be used as the zoning model.

**2.2. Development Environment of the Proposed System**

The Waterfall Model Software Engineering paradigm has been chosen for this project because the needs of the client were established.

**a. Hardware Requirements**

The system will need to be developed using an ASP.NET hosting server with storage to host the SQL database. The project group has a hosting server with ASP.NET capabilities and is familiar with its use, it is considered low risk.

**b. Software Requirements**

The system will be developed using the current version of the .NET framework, MySQL and ASP. The project documentation will be developed using current versions of Microsoft Word, Microsoft Project, Microsoft Visio and Visual Studio. The project group has licensed copies of all this software and is very familiar with their use, they are considered low risk.

**c. Data Requirements**

The client will supply the project group with the zones used by the Gang Prevention department of the RCMP to be used as the zoning model.

**d. Research Requirements**

The project group will have to research the programming style and programs such as ASP.NET with MySQL databases using the Internet and books as resources.

**3. FUNCTIONAL REQUIREMENTS**

Functional requirements are functions or features that must be included in the system to satisfy the project needs and be acceptable to the client.

**3.1. The Scope of the Work – The Proposed System’s Context Diagram**

The NCRDTMS Context Diagram depicted in Figure 1 contains all of the external entities that produce or consume data that is essential to the operation of the NCRDTMS. As such, the context diagram assists in bounding the scope of the software requirement and also assists in determining the system interfaces.



**Figure 1: Context Diagram**

The NCRDTMS is the web application system that will be developed to meet the requirements of the statement of scope. There are four external entities that can interact with the system. The following descriptions explain the general interaction these entities:

**User:** The user has the privileges to log in to the web application, add, view, and analyze event entries submitted by other users. All accounts will have contact information for users' access.

**Administrator:** The administrator has the same privileges as users, with added features such as editing event entries, and managing user accounts.

**Owner:** The Owner has the ability to manage administrator accounts.

**Potential User:** A potential user only has access to administrator and owner contact information.

**3.2. Functions Provided by the Project**

The following section identifies the hardware and software functionality requirements for the project. Each hardware and software requirement listed is prioritized as Essential, Useful, or Desirable as defined below:

Essential: Requirements that must be met by the system to provide a successful project.

Useful: Requirements that would make the system more effective.

Desirable: Requirements that would make the system more attractive to the users.

For each requirement a unique identifier will be used. Requirements will be denoted with the letters “SW”, for software. The following part of identifier will identify a priority classification: “E” for essential, “U” for useful, and “D” for desirable, followed by a numerical value representing the order of priority within the category.

3.2.1 **Hardware Functional Requirements**

There are no hardware development activities for this project.

3.2.2 **Software Functional Requirements**

The following functional requirements will be addressed by the project.

**Essential Requirements**

|  |  |
| --- | --- |
| SWE1 | The system shall be an internet based client-server application. |
| SWE2 | The system shall allow the user to access the data stored in the system only after having validated their login information. |
| SWE3 | The system shall have 3 types of users - Owner, Administrator, and User. Each type of user has appropriate system access privileges. |
| SWE4 | The system shall associate each User with one or more zones. |
| SWE5 | The system shall allow a User to input Data Entries into any Zone that User is associated with. |
| SWE6 | The system shall allow users to create Generated Reports based on the Event Entries. These Reports shall contain data aggregated by a combination of factors selected by the User including at least:  Date Range  Zone |
| SWE7 | The system shall allow a User to view Event Entries and Generated Reports from any Zone. |
| SWE8 | The system shall provide a graphical representation of each Generated Report through maps and graphs. |
| SWE8 | The system shall include a disclaimer on every Generated Report specifying that the data is anecdotal and not the result of a scientific study. |
| SWE9 | The system shall allow Users to compare Generated Reports across Date Ranges. |
| SWE10 | The system shall allow Administrators all the privileges granted to Users. |
| SWE11 | The system shall allow Administrators to associate or disassociate Users with Zones. |
| SWE12 | The system shall allow Administrators to create new User accounts or delete current Users. |
| SWE13 | The system shall allow Administrators to edit Event Entries in order to correct mistakes. |
| SWE14 | The system shall allow the Owner all privileges granted to Administrators. |
| SWE15 | The system shall allow the Owner to create or delete Administrators. |
| SWE16 | The system shall allow Users to view the Contact Information of every User and send email to any particular User or to all Users. |
| SWE17 | The system shall allow a User to edit their own Contact Information and/or Password. |
| SWE18 | The system shall provide a Periodic Report via email to Users on an opt-in basis. |
| SWE19 | The system shall provide a page showing Users updates since their last login. |

**Useful Requirements**

|  |  |
| --- | --- |
| SWU1 | The system shall provide a message board. |
| SWU2 | The system shall allow Users to save Generated Reports locally. |
| SWU3 | The system shall allow Users to view print-friendly versions of Generated Reports. |

**Desireable Requirements**

|  |  |
| --- | --- |
| SWD1 | The system shall link the map representations of reports to an existing map API. |
| SWD2 | The system shall allow users to save Generated Report Parameters for re-use. |

**4. NON-FUNCTIONAL REQUIREMENTS**

Non-functional requirements describe the features, characteristics, and attributes of the system as well as any constraints that may limit the boundaries of the proposed system and the eventual design of the product.

**4.1. Mandated Constraints**

This section describes constraints on the requirements and the eventual design of the product.

**Deadline**

The deadline for this project is April 23, 2011.

**Solution Constraints**

The system must be available on the Internet.

The web-interface must be accessible from any web browsing client.

Users must be able to access the web interface through a log in system.

**4.2. Look and Feel Requirements**

This section outlines constraints imposed on how the system should be designed for user interaction.

**The Interface**

The system must have a simple web-interface.

**4.3. Usability Requirements**

This section details the ability of the User to interact with the system.

**Ease of use**

The web-interface must be simple and intuitive for users that are not technologically inclined.

**4.4. Personalization Requirements**

This section describes the way in which the product can be altered or configured to take into account the user’s personal preferences or choice of language.

**Language**

The system will be primarily represented in English, but French may also be implemented, or made so that it can be implemented at a later date. If French is implemented then the user will be able to chose which language they would like displayed. Regardless of implementation the user will always be able to enter information in the language of their choice.

**4.5. Ease of Learning Requirements**

The system will be used by users who are technologically inclined and must be presented in an intuitive way as to make users productive within a short period.

**4.6. Accessibility Requirements**

The system will follow the Web Content Accessibility Guidelines (WCAG).

**5. DELIVERABLES**

At a minimum, the following constitute the deliverables of the project.

**5.1. Project Deliverables**

The following list constitutes the project deliverables:

· Analysis Document set

· Design Document set

· Documented Source Code

· Test Plan and Test Results

· Supporting Manuals - User manuals, Installation manuals

· Tested Client Software in executable format

**5.2. Course Deliverables**

The following list constitutes the course deliverables:

· Project Group and Individual Time Logs

· Project Presentation

**Appendix A: Project Gantt chart**

**Appendix B: Detailed Gantt chart for Software Requirements Phase**

**Appendix C: Detailed Gantt chart for Preliminary Design Phase**