

System / Software Requirements Specification (SRS)

Software Requirements Specification

for

OSC Activity Tracking System

as a project for

CEN 3073 Requirements Engineering and Analysis

Joseph Racz

1. Introduction

1.1 Purpose

The Office of Security Cooperation (OSC) has to track and document all ongoing and completed military exercises, training, and sales within a foreign nation. How these activities are tracked and the storage of files is currently up to the discretion of the acting chief within the OSC. Sharing of information and documents regarding activities between OSCs and departments within the government is also a manual process currently. A software solution is needed to standardize the tracking, documenting, and sharing process to ease the dissemination of information regarding OSC activities and have all the information in a standard format to make it easier for personnel to find the information they are looking for.

1.2 Scope

Product Name

OSC Activity Tracking System

Overview

The software will allow for users to input tracking information regarding OSC activities in a standard format and upload files attached to those activities. The software will also allow for users to look all information and data related to any OSC activities across the world. Information and files related to OSC activities will be able to be edited and/or deleted.

Goals

This software will set a standard for how tracking information and files related to OSC activities are written and stored. All information and files related to an OSC activity will be in one repository and be searchable for easy access. This new standard of information and file storage will allow OSC personnel, embassy personnel, and DoD command personnel to find the information they are looking for faster. The software will also allow OSCs to upload their activity repositories to a DoD command server and download repositories from the DoD command server to their own systems.

Objectives

Set a new standard for how OSC activity tracking information is logged with a document that has necessary information to be filled out.

Have a repository that ties OSC activity tracking information and files related to an activity together by an activity ID.

Be able to search for specific OSC activity repositories based on activity ID, activity name, date created, activity leader, date completed.

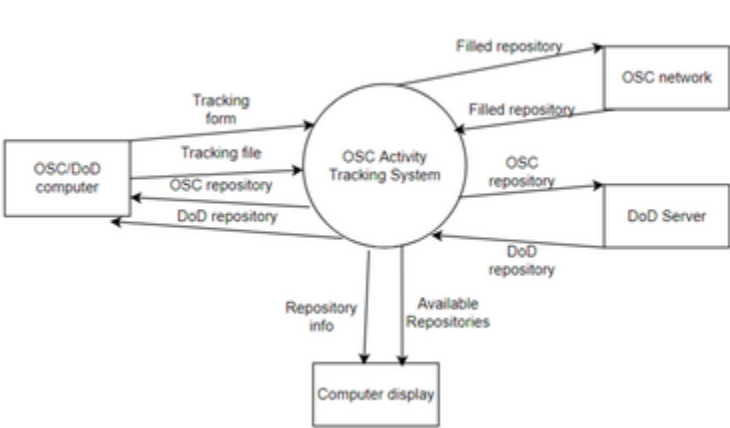
- Sort repositories based on activity ID, activity name, date created, date completed.
- Be able to upload repositories from an OSC system to a DoD command system for use outside of the specific OSC.
- Be able to download repositories from a DoD command server to an OSC system.
- When not connected to a DoD command sever the system must respond to search queries in less than a second.
- When not connected to a DoD command server the system must display a repository in less than a second after a user selects a repository.
- The software can run using locally stored files when not connected to the internet.

Out of Scope

- The software will not be able to send information between users.
- The software will not have input for other embassy related activities outside of the OSC.
- The software will not be usable by personnel outside of the employment of the US government or US military.
- The software will not automatically upload an OSC's activity repositories to the DoD command server.
- The software will not automatically connect to an OSC's DoD command server.
- The software will not send notification to users about changes made to an activity repository.
- The software will not track changes made to an activity repository.

1.3 Product overview

1.3.1 Product perspective



Key	Summary	T
C3-79	The system cannot use more than 500mb of computer memory.	
C3-78	The user clicks upload file button to upload a file to an activity repository they are viewing.	
C3-77	The user clicks the connect button to display the contents of the DoD command server.	
C3-76	The user clicks the activity repository button with unique information to display the contents of the repository.	
C3-75	All user input should be spell checked.	
C3-39	The user clicks tracking information link to display full tracking information form.	
C3-38	All tracking information forms and files shall be stored as PDFs.	
C3-37	The OSC Activity Tracking System shall run on Windows 10.	
C3-36	Only open source software available under the GNU General Public License may be used to implement the product.	



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1.3.2 Product functions

- User login
- Create OSC activity repository
- Add tracking information for OSC activity
- Upload files to activity repository
- Connect files to relevant tracking information
- Search for OSC activities within an OSC system
- Sort OSC activities, information, files based on relevant criteria
- Upload OSC activity repositories to DoD command server
- Search for OSC activities on the DoD command server
- Download OSC activity repositories from DoD command server
- Edit tracking information within an activity repository
- Delete tracking information and/or files within an activity repository
- Delete an OSC activity repository

1.3.3 User characteristics

Users will have varying levels of education with the OSC chiefs having gone through a master's level program, their seconds in command having gone through at least acquired a bachelor's degree, and other OSC personnel having a wide range of education levels. All personnel will have been trained prior to actually working within the OSC. Technical expertise will vary between personnel, however all personnel will have a basic understanding of how all software on their work computers is used. All personnel within an OSC are required to be proficient in English.

1.3.4 Limitations

Key	Summary	T	Labels
C3-53	Password must contain at least 1 capital letter, 1 number, and 1 special character.		Limitation
C3-52	The system cannot go down for maintenance between 6am and 8pm on any day.		Limitation
C3-51	The system must run on Windows 10.		Limitation
C3-50	The system must only display in English.		Limitation
C3-49	Password length must be at least 12 characters		Limitation
C3-48	Username must be personnel's ID.		Limitation
C3-47	The system must be able to run while not connected to the internet.		Limitation

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1.4 Definitions

- Security Assistance – Pertains to equipment sales
- Security Cooperation – Pertains to training and exercises

2. References

Major Joshua Campbell (US Army)

<https://samm.dsca.mil/chapter/chapter-1>

<https://samm.dsca.mil/chapter/chapter-2>

DODI 5000.87 Software Acquisition

<https://aaf.dau.edu/aaf/software/>

<https://dodcio.defense.gov/open-source-software-faq/#q-is-there-an-approved-recommended-or-generally-recognized-as-safemature-list-of-open-source-software-what-programs-are-already-in-widespread-use>

3. Specific Requirements

Key	Summary	Description	T	Linked Issues	P	Labels
C3-74	When not connected to the local OSC network, the OSC Activity Tracking System shall use the repositories on the user's system to display activity information and files.			C3-18		Functional, Product
C3-73	When prompted by an administrator, the OSC Activity Tracking System shall revoke access to the system for the user specified by the administrator.			C3-59		Functional, Product
C3-72	The OSC Activity Tracking System shall allow an OSC chief to upload changes to an activity repository from a different OSC to the DoD command server.			C3-58		Functional, Product
C3-70	When a change is made from one OSC to another's repository, the OSC Activity Tracking System shall prompt a DoD commander to review the changes to be made.			C3-57		Functional, Product
C3-69	When a DoD commander approves a change made from one OSC to another's repository on the DoD command server, the system shall replace the data on the server with the one approved by the DoD commander.			C3-58		Functional, Product
C3-68	When a DoD commander approves a change made from one OSC to another's repository on the DoD command server, the system shall prompt the chiefs of both OSCs that changes were made to the command server for that repository.			C3-60		Functional, Product
C3-67	When a DoD commander denies a change made from one OSC to another's repository on the DoD command server, the OSC Activity Tracking System shall prompt the commander for a reason of denial.			C3-57		Functional, Product
C3-66	When OSC chiefs review changes made to a DoD command server repository, the OSC Activity Tracking System shall display the previous view of the item changed alongside the new view of the item changed.			C3-60		Functional, Product
C3-65	When a DoD commander denies a change made from one OSC to another's repository on the DoD command server, the OSC Activity Tracking System shall prompt the OSC chief who uploaded the change with the reason of denial provided by the DoD commander.			C3-60		Functional, Product
C3-64	When the system prompts OSC chiefs of changes made to a repository on the DoD command server, the OSC Activity Tracking System shall prompt the OSC chiefs to review changes made to the repository.			C3-60		Functional, Product
C3-63	The OSC Activity Tracking System shall connect to the local OSC network to connect OSC repositories together.			C3-12		Functional, Product
C3-62	When not connected to the internet, the OSC Activity Tracking System shall use the local OSC network to display repositories.			C3-18		Functional, Product
C3-61	When prompted by an administrator, the OSC Activity Tracking System shall provide access to the system for the user specified by the administrator.			C3-59		Functional, Product
C3-46	When prompted by the user to download the contents of a repository, the system shall use the internet to download the contents onto the user's system.			C3-16		Functional, Product

C3-45	When prompted by the user to display a DoD command repository, the system shall use the internet to display the contents of the repository.		C3-17		Functional, Product
C3-44	When prompted by a user to connect to a DoD command server, the OSC Activity Tracking System shall use the internet to connect to the server.		C3-17		Functional, Product
C3-43	When the OSC Activity Tracking System connects to a DoD command server, the OSC Activity Tracking System shall use the internet to display the available repositories and relevant information.		C3-16		Functional, Product
C3-42	The OSC Activity Tracking System shall allow senior DoD personnel to permanently delete a activity repository from the system.		C3-20		Functional, Product
C3-41	The OSC Activity Tracking System shall allow senior DoD personnel to permanently delete tracking data from an activity repository.		C3-20		Functional, Product
C3-40	When prompted by the OSC chief to upload a tracking repository, the OSC Activity Tracking System shall upload the repository to the respective DoD command server tied to the OSC.		C3-17		Functional, Product
C3-32	The OSC Activity Tracking System shall allow an OSC chief to permanently delete tracking information and files from a activity repository.		C3-19		Functional, Product
C3-31	When a user prompts the system to display an activities' tracking information, the OSC Activity Tracking System shall display the filled out form that was saved onto the system.		C3-14		Functional, Product
C3-30	When a user prompts the system to create an activity repository, the OSC Activity Tracking System shall prompt the user for the activity name, activity ID, type of activity, and name of the host nation.		C3-12		Functional, Product
C3-29	When a user prompts the system to edit an activities' tracking information, the OSC Activity Tracking System shall display the filled out form allowing the user to change the fields.		C3-13		Functional, Product
C3-28	While inside of an activity repository, when a user prompts the system to upload a file to an activity repository, the OSC Activity Tracking System shall prompt the user for the file.		C3-14		Functional, Product
C3-27	When a user prompts the system with a completed form for tracking information, the OSC Activity Tracking System shall create a dated link to the tracking information in the repository display.		C3-14		Functional, Product
C3-26	When a user prompts the system to add tracking information to an activity, the OSC Activity Tracking System shall display a form to input all relevant information to that phase of the activities progress.		C3-14		Functional, Product
C3-25	The OSC Activity Tracking System shall allow an OSC chief to permanently delete a activity repository from the system.		C3-19		Functional, Product
C3-24	When adding file to an activity repository, the OSC Activity Tracking System shall prompt the user to select the tracking information link to tie the tracking information with the file.		C3-14		Functional, Product
C3-22	The OSC Activity Tracking System shall allow the user to search for OSC activities in the system using predetermined information tied to the activities.		C3-18		Functional, Product
C3-21	The OSC Activity Tracking System shall require the user to enter their login information to use the system.		C3-33		Functional, Product

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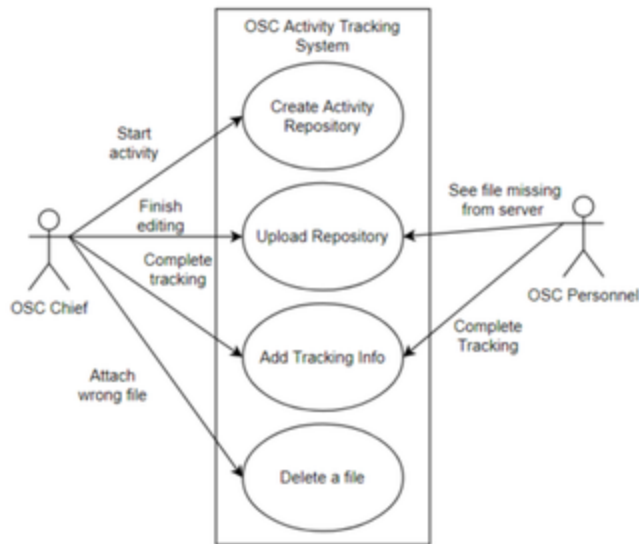
Primary Actor	Use Cases
OSC chief	1. Create activity repository
OSC personnel	2. Upload repository
	3. Add tracking info
	4. Delete a file

UC ID and Name:	1. Create activity repository		
Created By:	Joseph Racz	Date Created:	
Primary Actor:	OSC Chief	Secondary Actors:	
Trigger:			
Description:	The user prompts the system to create an activity repository and the system creates it.		
Preconditions:	User has authorization		
Postconditions:	System creates repository with information user provided. Unable to use same activity ID and name		
Normal Flow:	Log in Click create repository Enter activity information(Name, ID, Relevant personnel, etc.) Click create Repository created		
Alternative Flows:	1. Not authorized System doesn't allow user to click create 2. Not enough information System prompts user to input all required information 3. Activity ID/ Activity Name are already in use Option to change information Option to view repository with ID/Name		
Exceptions:			
Priority:			
Frequency of Use:			
Business Rules:			
Other Information:			
Assumptions:			

UC ID and Name:	2. Upload repository		
Created By:	Joseph Racz	Date Created:	
Primary Actor:	OSC personnel	Secondary Actors:	OSC Chief
Trigger:			
Description:	The user prompts the system to upload an activity repository from their system to the DoD command server and the system uploads it.		
Preconditions:	User has authorization Repositories are on the local system System is connected to the internet DoD command server is connected to the internet		
Postconditions:	Repository appears on command server Repository unable to be uploaded again for a minute		
Normal Flow:	Log in Browse Choose repository Click upload Repository appears on command server		
Alternative Flows:	1. Not authorized No option to upload 2. No repositories on system Option to download repositories from command server Option to create repository 3. Not connected to the internet No option to upload 4. Command server not connected to internet Error message Option to click upload again after 30 seconds 5. Upload fails Error message Option to click upload again		
Exceptions:			
Priority:			
Frequency of Use:			
Business Rules:			
Other Information:			
Assumptions:			

UC ID and Name:	3. Add tracking info		
Created By:	Joseph Racz	Date Created:	
Primary Actor:	OSC personnel	Secondary Actors:	OSC chief
Trigger:			
Description:	The user prompts the system to add tracking info to an activity repository, fills out a tracking form, and the system adds the info provided to the repository.		
Preconditions:	User has authorization There are repositories within the local system Repository has no "completed" status Tracking date not already used		
Postconditions:	Tracking info added to repository Tracking info is dated Unable to use same tracking ID Unable to use same date for tracking within repository		
Normal Flow:	Log in Browse Choose Repository Click add tracking info Fill out form Click create Clickable dated name link created		
Alternative Flows:	1. User is not authorized No option to add info 2. No repositories Option to download repositories Option to create repository 3. Repository has "completed" status No option to add info 4. Date already used Option to open info using date		
Exceptions:			
Priority:			
Frequency of Use:			
Business Rules:			
Other Information:			
Assumptions:			

UC ID and Name:	4. Delete a file		
Created By:	Joseph Racz	Date Created:	
Primary Actor:	OSC Chief	Secondary Actors:	
Trigger:			
Description:	The user prompts the system to delete a file from an activity repository and the system removes it from the local repository.		
Preconditions:	User has authorization There are repositories on the system There are files within the repository		
Postconditions:	File is permanently deleted from repository		
Normal Flow:	Log in Browse Choose repository Choose file Click delete File is deleted		
Alternative Flows:	1. Not authorized No option to delete 2. No repositories Option to create a repository Option to download repositories 3. No files Option to add file		
Exceptions:			
Priority:			
Frequency of Use:			
Business Rules:			
Other Information:			
Assumptions:			



4. Verification

Key	Summary	Verification Approach
C3-74	When not connected to the local OSC network, the OSC Activity Tracking System shall use the repositories on the user's system to display activity information and files.	Test
C3-73	When prompted by an administrator, the OSC Activity Tracking System shall revoke access to the system for the user specified by the administrator.	Test
C3-72	The OSC Activity Tracking System shall allow an OSC chief to upload changes to an activity repository from a different OSC to the DoD command server.	Demonstration
C3-70	When a change is made from one OSC to another's repository, the OSC Activity Tracking System shall prompt a DoD commander to review the changes to be made.	Demonstration
C3-69	When a DoD commander approves a change made from one OSC to another's repository on the DoD command server, the system shall replace the data on the server with the one approved by the DoD commander.	Demonstration
C3-68	When a DoD commander approves a change made from one OSC to another's repository on the DoD command server, the system shall prompt the chiefs of both OSCs that changes were made to the command server for that repository.	Demonstration
C3-67	When a DoD commander denies a change made from one OSC to another's repository on the DoD command server, the OSC Activity Tracking System shall prompt the commander for a reason of denial.	Demonstration
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C3-65	When a DoD commander denies a change made from one OSC to another's repository on the DoD command server, the OSC Activity Tracking System shall prompt the OSC chief who uploaded the change with the reason of denial provided by the DoD commander.	Demonstration
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C3-63	The OSC Activity Tracking System shall connect to the local OSC network to connect OSC repositories together.	Test
C3-62	When not connected to the internet, the OSC Activity Tracking System shall use the local OSC network to display repositories.	Test
C3-61	When prompted by an administrator, the OSC Activity Tracking System shall provide access to the system for the user specified by the administrator.	Test
C3-46	When prompted by the user to download the contents of a repository, the system shall use the internet to download the contents onto the user's system.	Demonstration
C3-45	When prompted by the user to display a DoD command repository, the system shall use the internet to display the contents of the	Test

repository.

C3-44	When prompted by a user to connect to a DoD command server, the OSC Activity Tracking System shall use the internet to connect to the server.	Test
C3-43	When the OSC Activity Tracking System connects to a DoD command server, the OSC Activity Tracking System shall use the internet to display the available repositories and relevant information.	Test
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C3-21	The OSC Activity Tracking System shall require the user to enter their login information to use the system.	Demonstration

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5. Appendices

5.1 Assumptions and dependencies

This software and the standard it sets for information and file storage will be widely accepted by OSCs and DoD commands.

This software is allowed to exist within the policies of the DoD.

All current and previous OSC activities information and files will be able to be input onto this new system.

There is not already a software or procedure across OSCs that does this already.

The internet available at all OSCs and DoD commands will be able to handle the uploading and downloading of activity repositories.

5.2 Acronyms and abbreviations

DoD – Department of Defense

DoS – Department of State

LoR - Letter of Request

OSC – Office of Security Cooperation

US – United States