Requirements Specification
IP-516vt – SPECCHIO Webinterface

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History

Date	Author	Changes	Vers.
29.09.2016	Christian Schibli	Initial version	0.1
03.10.2016	Christian Schibli, Remo Rossi	Goal & vision, use case diagram	0.2
05.10.2016	Christian Schibli, Remo Rossi	Use case scenarios, requirements	1.0
07.10.2016	Christian Schibli, Remo Rossi, Andreas Hueni	Minor modifications in use cases and diagram, modifications in requirements, priority set through client	1.1
10.10.2016	Christian Schibli	Clearing up	1.2

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1. Goal & Vision

1.1 Actual condition

SPECCHIO is a spectral information system designed to hold reference spectra and spectral campaign data. SPECCHIO is a Java application that needs to be installed on a computer.
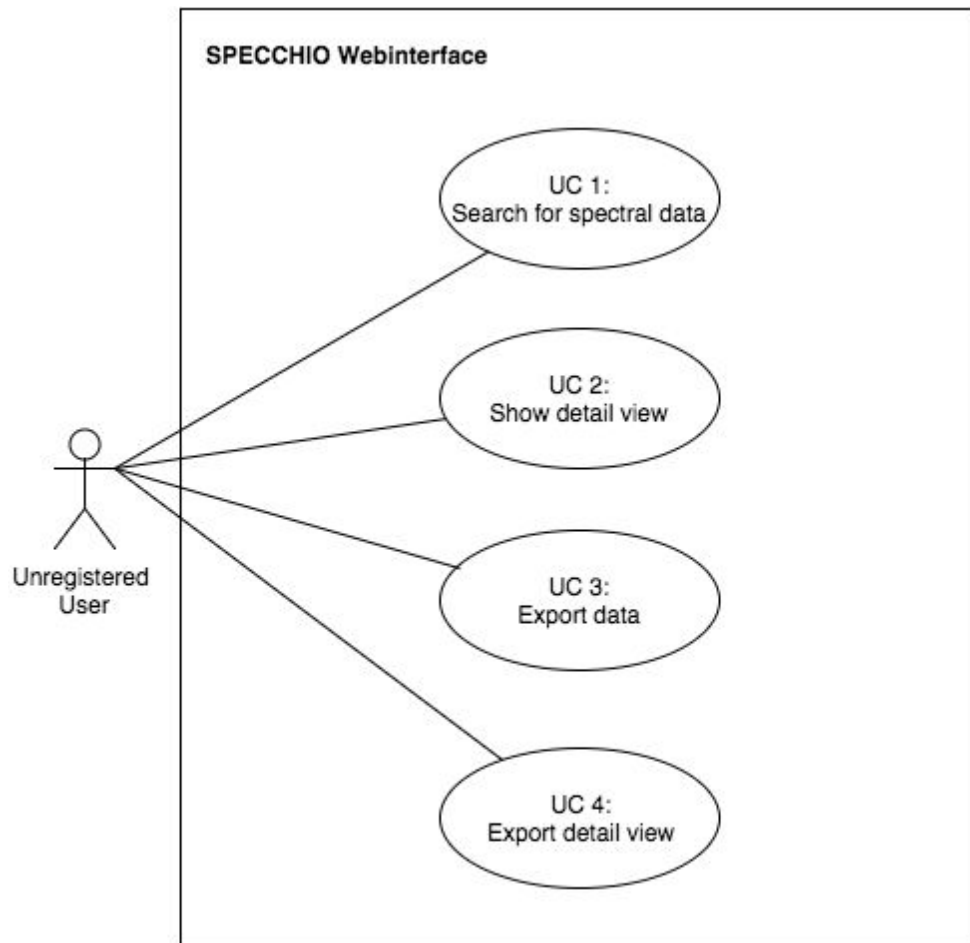
1.2 Goal

The SPECCHIO web interface provides a user-friendly search for the SPECCHIO-Database over a web browser. This database is available for public use.

1.3 Vision

The SPECCHIO web interface is the world number one for searching in a spectral database. The website that needs to be excelled is https://ecosis.org/#home.

2. Use Cases

2.1 Use case diagram

Version 1.1, 10.10.2016

2.2   Use case scenarios

UC no.	#1
UC name	Search for spectral data
Author	Christian Schibli, Remo Rossi
Priority (1, 2, 3)	1
Trigger	User wants to know if any specific data already exists in the SPECCHIO database.
Actor	Unregistered User
Precondition	User has an internet connection. User is located on the homepage.
Main scenario	1. User puts keywords into search field. 2. User starts search. 3. SPECCHIO web interface checks for matching data.

Alternative scenario	1.a User chooses from the given pictograms for search query:
	    ● Athmosphere
	    ● Hydrosphere
	    ● Geosphere
	    ● Cryosphere
	    ● Biosphere
	1.b User chooses from a list of attributes to isolate the range of the search query.
	1.c User searches over map mode by putting the coordinates or location into the search field.

Result	A list of search results is displayed or a feedback is given that no such data exists on SPECCHIO database.
Postcondition	

UC no.	#2
UC name	Show detail view.
Author	Christian Schibli, Remo Rossi
Priority (1, 2, 3)	1
Trigger	User has a list of search results and wants to show a detail view from one or multiple results.
Actor	Unregistered User
Precondition	User has an internet connection. User has already done a search query with some results.
Main scenario	1. User chooses an item from the list.
Alternative scenario	1.a User chooses multiple items from the list.
Result	A detailed view of the chosen search result is displayed.
Postcondition	

UC no.	#3
UC name	Export spectral data
Author	Christian Schibli, Remo Rossi
Priority (1, 2, 3)	2
Trigger	User wants to use spectral data from the chosen result for research purpose.
Actor	Unregistered User
Precondition	User has an internet connection. User is located on a detail view. Enough free space for export at desired location.
Main scenario	1. User presses the export spectral data button. 2. User chooses location to save spectral data. 3. User gives a filename. 4. User presses save button.
Alternative scenario	
Result	Spectral data from the current detail view is saved at desired location.
Postcondition	

UC no.	#4
UC name	Export detail view
Author	Christian Schibli, Remo Rossi
Priority (1, 2, 3)	2
Trigger	User wants to save or print the detail view.
Actor	Unregistered User
Precondition	User has an internet connection. User is located on a detail view. Enough free space for export at desired location.
Main scenario	1. User presses the export detail view button 2. User chooses location to save detail view file. 3. User gives a filename. 4. User presses save button.
Alternative scenario	
Result	Detail view is saved as file at desired location.
Postcondition	

3. Requirements

ID	Requirement	Grouping	Prio (1, 2, 3)	Use Case
1	The user must be able to search by keyword.	search	1	1
2	The user must be able to search by clicking the given pictograms: – Athmosphere – Hydrosphere – Geosphere – Cryosphere – Biosphere	search	3	1
3	The user must be able to search by the SPECCHIO attributes (prefix search).	search	2	1
4	The user should be able to search by map.	map search	3	1
5	Input for map search are coordinates.	map search	3	1
6	Input for map search is location name.	map search	3	1
7	The system will notify about no results if the area in km2 exceeds a specific value.	map search	3	1
8	The system shows the first 10 results of a search query.	result list	1	1
9	Results are initially sorted by date.	result list	1	1
10	The list of results should contain following information: – date – campaign – owner – name – filename – institute – thumbmail of spectral data diagram – enabled map icon in case of existing map data, disabled if non-existing	result list	1	1
11	The system should be able to show a map snippet in the list of results if the mouse pointer is located over an enabled map icon.	result list	3	1
12	The user must be able to view 1 spectral data set (simplified).	detail view, map search	3	2
13	The user must be able to view 1 spectral data set (fullview –> diagram & metaparameter)	detail view	1	2
14	The user should be able to view multiple spectral data sets (fullview).	detail view	2	2
15	The user must be able to watch detail information about diagram curve from the position where the mouse cursor is currently located.	diagram	2	2

16	The user should be able to zoom in into diagram.	diagram	2	2
17	Only existing categories should be shown. Categories without content must not be displayed.	detail view	1	2
18	Spectral data from different types should be separated in different tabs.	detail view	2	2
19	File format of spectral data export must be csv (comma-separated values).	data export	1	3
20	Multiple data sets from same type must be packed into one csv file.	data export	1	3
21	All generated csv files (data sets from different type) must be packed to ZIP.	data export	2	3
22	The user must be able to export detail view as PDF (fullview).	view export	2	4