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# Use cases for User Interface and API

(Submitted by co-chairs TT-OD)

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| **This document lists Use Cases of the OSCAR/Surface Graphical User (GUI) Interface and API. These use cases are important for the development of GUI and API, and they are also the base of the other documents submitted under agenda item 4.** |

**The OSCAR/SUrfacec development team is requested to take into account these use-cases in the further development of OSCAR/surface**

**References:**

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**1.1 USE CASES FOR THE Graphical user interface**

1. Simple station metadata input using templates. An authorized User inputs/modifies metadata for an observing system or observing technology using a template. The template allows to input all most important fields for the observing system / technology in a simple manner. The supported templates are: SYNOP, Radiosonde, AWS, GCW .
2. Advanced station metadata input. An authorized User inputs/modifies the full extent of WIGOS metadata for a station using advanced editing functionality.
3. Station metadata display. An anonymous User can view the full extent of station metadata using a station report to review all metadata elements.
4. Quick station search. An anonymous User can find (a) station(s) in a quick way by searching for the station ID, name or network affiliation.
5. Complex station search. An anonymous user can find stations using complex search criteria. This includes the ability for the user to see the status of the network at a point in time in the past. The fields supported by the complex search include operating status, affiliation, location, observed variable, country, region and supervising agency.
6. Quick type discovery. An anonymous user can quickly identify station types of particular interest to the community. These types mirror the supported template in ‎UC 1.
7. Export of search results. An anonymous User can download a machine readable representation of a search result in CSV, XML and JSON. The User can indicate which metadata fields are returned as part of the result.

**2.1 use cases for the API**

1. Regular synchronization with national station database. A National Focal Point puts in place a process to regularly synchronize the contents of a national station database with OSCAR/Surface. Either complete or partly complete XML records containing the changes are exported from the national DB and uploaded to the API.
2. Regular synchronization with a WMO programme database. A Network Focal Point puts in place a process to regularly synchronize the contents of a WMO programme station database with OSCAR/Surface. Either complete or partly complete XML records containing the changes are exported from the programme DB and uploaded to the API.
3. Initial seeding. A National Focal Point uploads the national observing network to OSCAR/Surface. After this initial seeding, the National Focal Point uses the GUI to maintain the national observing network in OSCAR/Surface.
4. Interactive use. A National Focal Point uses the API to perform batch operations on stations in OSCAR/Surface. The National Focal Points then either uses the GUI to make further changes, while also having the possibility to use the API to perform further changes.
5. Backup. A National Focal Point should be able to download a ZIP file with a full XML dump of all the countries stations.
6. Restore. A National Focal Point should be able to restore (a) previously backuped station(s) by uploading the XML dump.
7. Retrieving information. A User uses the API to obtain information from OSCAR/Surface. The user specifies search criteria and the fields that should be returned as part of the search result. The OSCAR/Surface API returns the requested information in machine readable format.
8. WDQMS interface. The OSCAR/Surface API allows the WDQMS system to batch update selected fields (“computed reporting status”) on a selection of stations by uploading a single file. At the same time, the API allows WDQMS to obtain international exchange schedules for a selected set of stations. (UC 6?)
9. Audit. The audit log can be obtained in machine readable format through the API by an administrator.

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