

OSCAR and DCs Metadata Exchange/Standardisation Status/Efforts Update

ET-WDC Meeting #4

Teleconference Tuesday 07/07/2020

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1. Introduction

- **Re-cap**
- **Current/Planned Activities/Efforts**
- **Summary/Conclusion**

2. Re-cap

- **All 18 DCs have responded to my introductory e-mail**
- **One or more Telecons with 16 DCs have been organized and successfully completed**
- **With the remining 2, sufficient and essential information has been exchanged via e-mail**
- **Topics discussed during Telecon(s) and e-mail exchanges include:**
 - **MD Structure/Content/Format**
 - **Single Station MD Manual Upload into the OSCAR DB**
 - **Automatic (Short and Long Term) MD Upload**

- **In a nutshell, the telecon/e-mail findings are:**

- a) 16-17 DCs are XML “ready” and can produce a “version” of the XML format, whereas 1-2 have yet not declared themselves**

- b) Non-XML format MD, if any, would need to be mapped into the OSCAR compliant XML**

- c) DCs are currently making limited use of the OSCAR DB and a good majority do not have an OSCAR account; I have given them a brief introduction to OSCAR, including how to search and look at their network station details, how to get login credentials and the token and its importance; Discussed the FAQ OSCAR section; Downloaded and uploaded (manually) the station MD XML**

- d) DCs are mindful of the fact that the OSCAR DB MD content is out of date, hence they all fully agree and support the ongoing activities to bring it up to date as well as eventually setting up an automatic procedure and the tools to do it in the future**

- e) Lack of OSCAR usage and resources on their side as well as a somewhat “complex” procedure to do it are the most common reasons for not keeping it up to date**

- f) DCs want to cooperate amongst themselves regarding the MD issues, and they certainly should be encouraged to do so**

- **Multiple (3) ways/approaches of exchanging MD information between DCs and the OSCAR DB are envisaged:**

3.1 Manual MD Change/Creation and Upload

3.2 Computer (Tool/Program) Upload of independently created OSCAR compliant MD XML (Tom's presentation)

3.3 Intermediate “XML Like Template” (“XLT”) MD to be, “behind the scene”, transformed (e.g. XSLT) into the OSCAR compliant XML and uploaded

3. Current/Planned Activities/Efforts

- **Documentation:**
 - **“OSCAR User Registration Procedure for MetaData Handling”**
 - **“OSCAR New Station Registration Procedure”**
 - **Quick Reference and user guide:**
 - 1. “How-to Manually Modify Existing OSCAR DB Station MD Content”**
 - 2. “How-to Manually Upload Modified/Created XML of an Existing OSCAR DB Station”**
 - **Quick Reference and user guide: “How to Use Open Source Software to Upload XML MD into the OSCAR DB”**
 - **More documents of this kind will follow once need is identified and process, steps and requirements are clarified**
- **Template(s) (XML, JSON, YAML etc.) development and its transformation (e.g. XSLT)**
- **Exemplary Python scripts to perform various MD manipulations tasks such as: search, download, modify, convert simple CSV MD format into XML, vocabulary mapping, upload etc.) are being worked on and will be made available, including documentation, as examples and teaching tools for DCs to use when preparing XMLs**
- **On-going MD related activities: editing, modifying and uploading**

- **User-friendly interface layer through which the information will be exchanged**
- **Automatic procedure to be triggered whenever MD content is changed at a DC**
- **Tables showing various OSCAR MD aspects:**
 - **OSCAR GAW Station Count**
 - **OSCAR Existing GAW Station MD Handling Status**
 - **DCs' Variables vs OSCAR Codelist**
 - **DC's vs OSCAR MD Content**
 - **Etc.**

WDCs and CDCs OSCAR Existing GAW Stations Count		
No.	WDC/CDC	Station Count
1	WDCGG	N/A
2	WRDC	N/A
3	WDCA	N/A
4	WDCRG	N/A
5	WOUDC	N/A
6	WDCPC	N/A
7	SHADOZ	13
8	NDACC	57
9	GALION/MPLNET	7
10	LALINET (ALINE)	5
11	INDAAF	12
12	CASTNET	66
13	TCCON	17
14	CAPMON	17
15	EANET	12
16	SKYNET	51
17	ICOS	1
18	IMPROVE	15

WDCs and CDCs OSCAR Existing GAW Stations MD Handling Status
Legend: “E&S”=“Edit and Save”, “CPS”=“Copy, Paste and Submit”, “M2M”=“Machine to Machine”

No.	WDC/CDC	MD Format		XML Download		XML Transformation		XML Upload		
		XML	Other	Whole	Partial	XML Editor	Tool/ Script	Manual		“M2M”
								“E&S”	“CPS”	
1	WDCGG	Yes	N/A	Yes	No	Yes	Yes	Maybe	Yes (tested)	Yes (tested)
2	WRDC	Yes	N/A	Yes	No	Expected	Expected		Expected	Expected
3	WDCA	Yes	N/A	Yes	No	Yes	Yes	Maybe	Yes (tested)	Yes (tested)
4	WDCRG	Yes	N/A	Yes	No	Yes	Yes	Maybe	Yes (tested)	Yes (tested)
5	WOUDC	Yes	N/A	Yes	No	Yes	Yes	Maybe	Yes (tested)	Yes (tested)
6	WDCPC	Yes	N/A	Yes	No	Yes	Yes	Maybe	Yes (testing)	Yes (testing)
7	SHADOZ	Yes	N/A	Yes	No	Expected	Expected	Expected	Expected	Expected
8	NDACC	Yes	N/A	Yes	No	Expected	Expected	Expected	Expected	Expected
9	GALION/MPLNET	Yes	N/A	Yes	No	Yes (tested)	Yes (tested)	Maybe	Yes (tested)	Yes (tested)
10	LALINET (ALINE)	Yes	N/A	Yes	No	Expected	Expected	Expected	Expected	Expected
11	INDAAF	?	?	No	No	No	No	Yes (testing)	No	No
12	CASTNET	?	?	Yes	No	Expected	?	Maybe	Expected	?
13	TCCON	Yes	N/A	Yes	No	Expected	Expected	Maybe	Expected	Expected
14	CAPMON	Yes	N/A	Yes	No	Expected	Expected	Maybe	Expected	Expected
15	EANET	Yes	N/A	Yes	No	Expected	Expected	Maybe	Expected	Expected
16	SKYNET	Yes	N/A	Yes	No	Expected	Expected	Maybe	Expected	Expected
17	ICOS	Yes	N/A	Yes	No	Expected	Expected	Maybe	Expected	Expected
18	IMPROVE	Yes	N/A	Yes	No	Expected	Expected	Maybe	Expected	Expected

4. Summary/Conclusion

- **Significant progress has been and still is being made and there is a lot of work ahead**
- **The success of this project heavily relies on DCs willingness to cooperate and as I have spoken to all of them, I see their wish is to do so**
- **Cross network cooperation**
- **This is not only a GAW program problem, but ought to be applicable to other WMO programs (GOS, GCW, WHOS etc.)**

THANK YOU!