

GUIDE TO MAINTENANCE OF GTS METADATA AT GISC/WIMMS TOKYO

2012-01-26

GISC Tokyo / Japan Meteorological Agency

1. INTRODUCTION

The WMO Information System (WIS) has become operational since January 2012. Catalogue of data is a key component of WIS, and is being built at WIS Centres. As the Global Telecommunication System (GTS) has been incorporated as a part of WIS, the catalogue of bulletins is also being migrated into WIS catalogue, composed from metadata records in geospatial international standard ISO 19115/19139.

Every weather services on GTS are now supposed to join the maintenance of metadata as National Centre (NC) or Data Collection and Production Centre (DCPC). This document describes possible technical options supported at Tokyo as GISC (Global Information System Centre) or WIMMS (WIS Interim Metadata Maintenance Service).

EXPECTED READER: data management staff of WIS NC or DCPC, especially on GTS.

2. DON'T WORRY, VOLUME C1 NOT GOING AWAY

First of all, **PLEASE RELAX**. The change is not scary as it might sound. The only thing an NC or DCPC has to do is, in short, to request a GISC to take care of metadata [cf. Section 6]. The GISC can do the rest.

The traditional catalogue of GTS bulletins, called WMO Publication No 9 Volume C1, is not going away now. The sixteenth World Meteorological Congress stated that it will be considered authentic source of information until 2015. Hence all GTS centres (it's you) must continue contacting your RTH (Regional Telecommunication Hub) to provide up-to-date information for now.

The Volume C1 is in very simple plain text called CSV (Comma-Separated Value). You might have experience of editing it by Microsoft Excel (Figure 1). In the GTS the RTH on MTN (Main Telecommunication Network) collects it from NMC, and sends to WMO Secretariat where entire set is compiled.

WIS metadata can be made from the Volume C1. The baseline metadata, currently you can see at every operating GISC, were made by Météo-France in this way. And GISC Tokyo will make sure that the metadata for you is made from the latest version of Volume C1.

Please don't worry even after the migration is done. Then GISC Tokyo will directly collect information from you in the similar tabular format (Figure 2). There should be a few columns added or changed, that will be discussed in CBS expert teams, but we'll make sure the overall look-and-feel won't be changed.

Region	RTH	Country	Centre	Date	Category	TTAAii	CCCC	CodeForm	TimeGrou	Content	Remarks
2	BANGKOK	LAO PEOP	VIENTIAN	22/07/201	E	CSLA01	VLIV	FM 71-XI	MONTHLY	48930 48938 48940 48	
3	2	BANGKOK	LAO PEOP	VIENTIAN	8/8/2003	E	FPLA01	VLIV	PLAIN LAN	3	PUBLIC OF
4	2	BANGKOK	LAO PEOP	VIENTIAN	8/8/2003	E	SILA20	VLIV	FM 12-XI	03,09	48921 48924 48925 48
5	2	BANGKOK	LAO PEOP	VIENTIAN	8/8/2003	E	SILA20	VLIV	FM 12-XI	15,21	48930 48940 48947 48
6	2	BANGKOK	LAO PEOP	VIENTIAN	8/8/2003	E	SMLA01	VLIV	FM 12-XI	00,06	48921 48924 48925 48
7	2	BANGKOK	LAO PEOP	VIENTIAN	8/8/2003	E	SMLA01	VLIV	FM 12-XI	12,18	48930 48940 48947 48
8	2	BANGKOK	MYANMAI	YANGON	8/8/2003	E	FPBM01	VBRR	PLAIN LAN	3	PUBLIC OF
9	2	BANGKOK	MYANMAI	YANGON	8/8/2003	E	FPBM20	VBRR	PLAIN LAN	6	PUBLIC FO
10	2	BANGKOK	MYANMAI	YANGON	8/8/2003	E	SIBM20	VBRR	FM 12-XI	03,09	48001 48004 48008 48
11	2	BANGKOK	MYANMAI	YANGON	8/8/2003	E	SIBM20	VBRR	FM 12-XI	15,21	48097
12	2	BANGKOK	MYANMAI	YANGON	8/8/2003	E	SMBM01	VBRR	FM 12-XI	00,06,12	48001 48004 48008 48
13	2	BANGKOK	MYANMAI	YANGON	8/8/2003	E	SMBM01	VBRR	FM 12-XI	18	48008 48053 48060 48
14	2	BANGKOK	MYANMAI	YANGON	8/8/2003	E	UGBM20	VBRR	FM 32-IX	0	48094 48097 48108
15	2	BANGKOK	MYANMAI	YANGON	8/8/2003	E	UPBM01	VBRR	FM 32-IX	0	48094 48097 48108
16	2	BANGKOK	THAILAND	BANGKOK	1/7/2008	E	CSTH01	VTBB	FM 71-XI	MONTHLY	48327 48354 48378 48
17	2	BANGKOK	THAILAND	BANGKOK	8/8/2003	E	FPTH01	VTBB	PLAIN LAN	3	PUBLIC OF
18	2	BANGKOK	THAILAND	BANGKOK	8/8/2003	E	FPTH20	VTBB	PLAIN LAN	5	PUBLIC FO

Figure 1: Traditional bulletin catalogue can be edited on Microsoft Excel.



Figure 2: work flows of GTS Catalogue, indicating current one and planned one after the VoIC1-Metadata migration is completed.

3. CREATING/EDITING METADATA RECORDS ON WEB

If you'd like to try new functions of WIS, the simplest way is to create/edit metadata on the web interface of GISC Tokyo Portal <http://www.wis-jma.go.jp/>. This is also useful if you wish to add non-GTS data into the WIS catalogue.

3.1 FIND OUT YOUR RECORDS

In most case, you'd like to modify existing metadata records. To find out the records you can edit, please mouse over "Metadata" menu on the GISC Portal. Please select "Search and Browse" in the pop-up menu (Figure 3), and you'll see a listing of metadata records and a search form in the right hand side.



Figure 3: "Metadata" menu of GISC Tokyo portal site.

Then please select the OAI Set name of your centre (starting with "WIS-TOKYO-") in the pull-down menu.

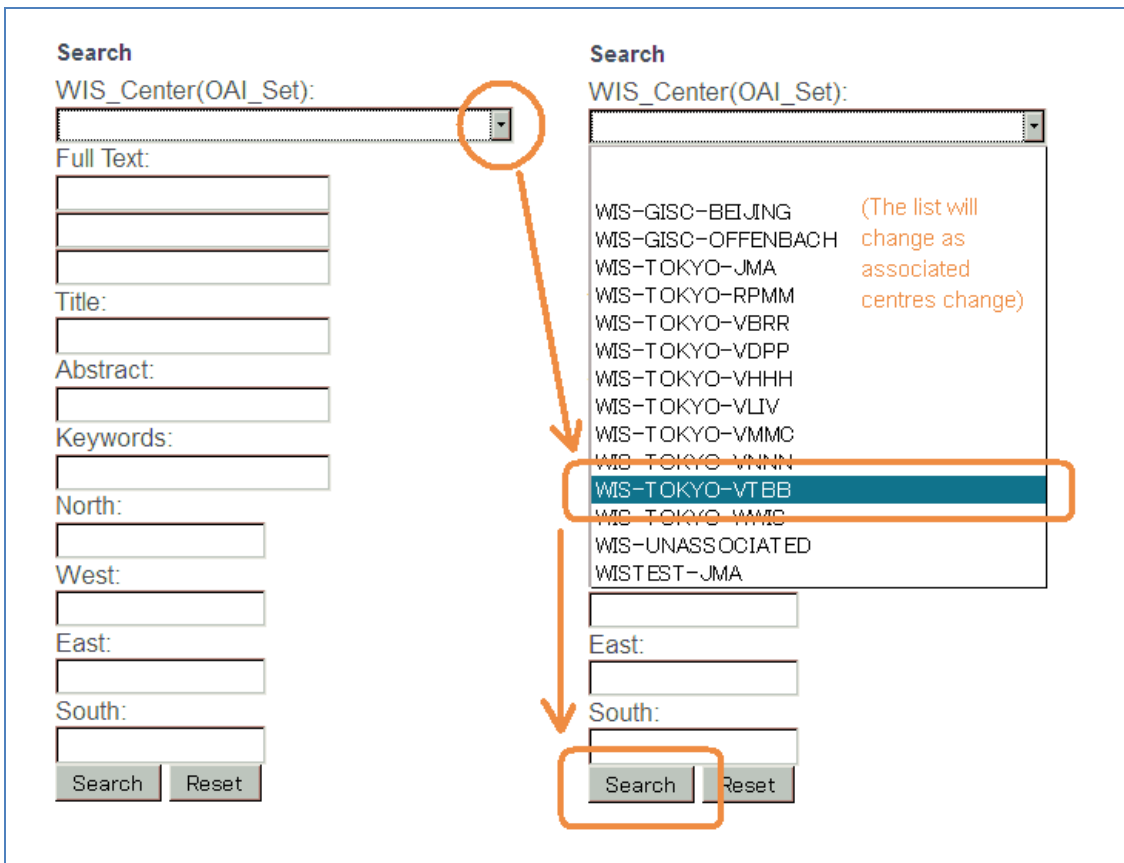


Figure 4: selecting a metadata set in "Search and Browse" screen.

Now you will see the records for the centre (Figure 5). You can browse entire set of metadata by pushing "Next" button if there are more than ten records.

NOTE: you don't have to enter username/password until this step. You can email the URLs to your colleagues who don't have registration.

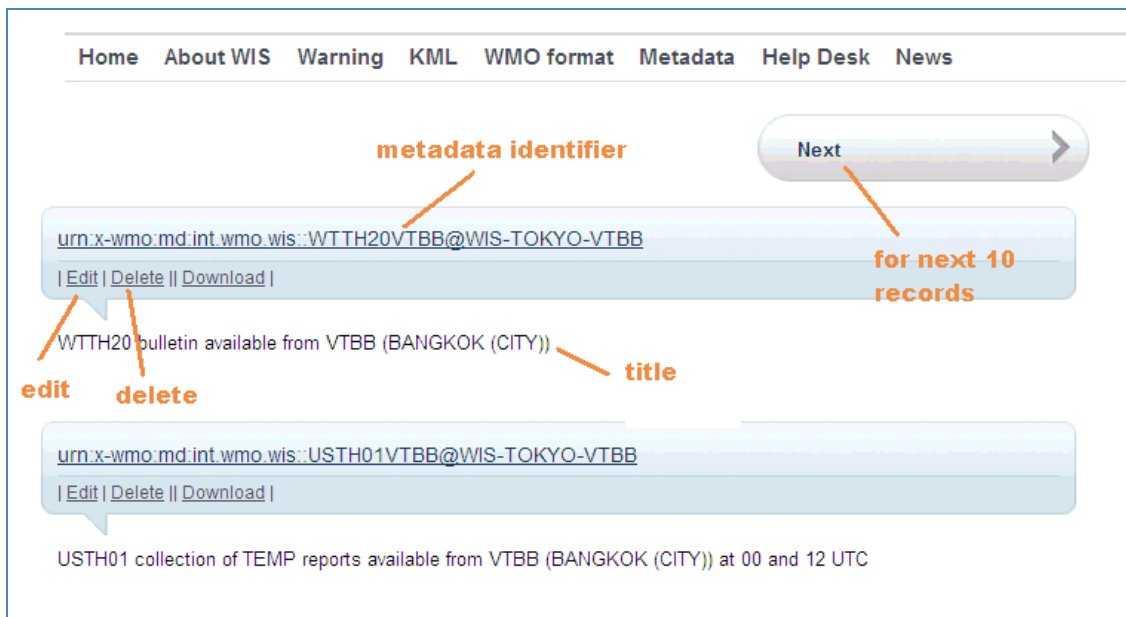


Figure 5: metadata listing screen. "Search" button of Figure 4 leads to here.

3.2 EDIT EXISTING RECORD

You can now edit each record by clicking "Edit" link (Figure 5). You will be asked username/password. Please contact GISC Tokyo (Section 6 later) to be registered. Then you'll see a form (Figure 6). Please refer to appendix A for input guidelines.

NOTE: if you modify "File Identifier" and save, you create another record. You can remove older one by clicking "delete" link in the metadata listing (described above).

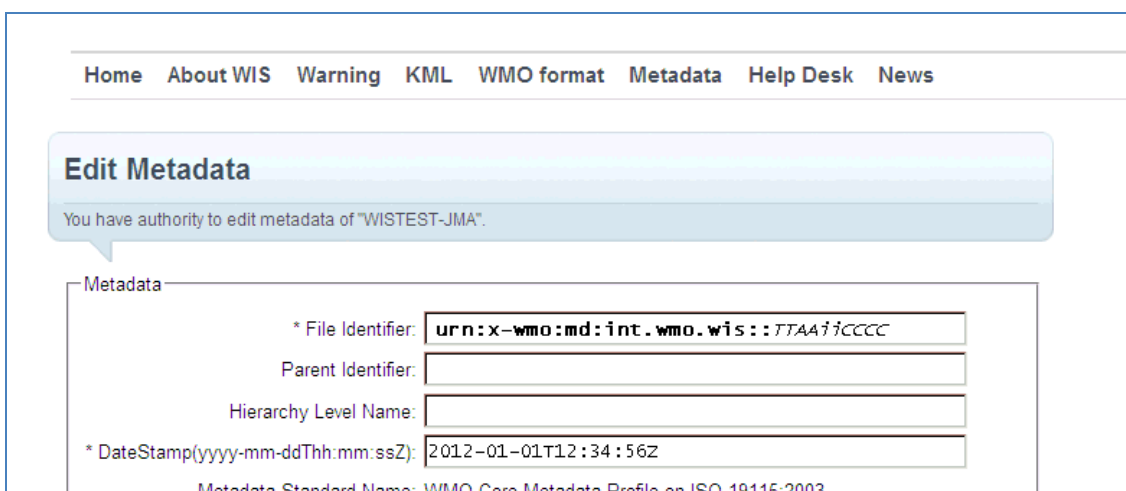


Figure 6: metadata edit screen. "Edit" link of Figure 5 leads to here.

3.3 CREATE A RECORD FROM SCRATCH

You can also start the edit screen from scratch by "Create Metadata" menu of the GISC Portal (Figure 7). In this case the edit screen starts with all blank fields, and you will have to input all required fields.

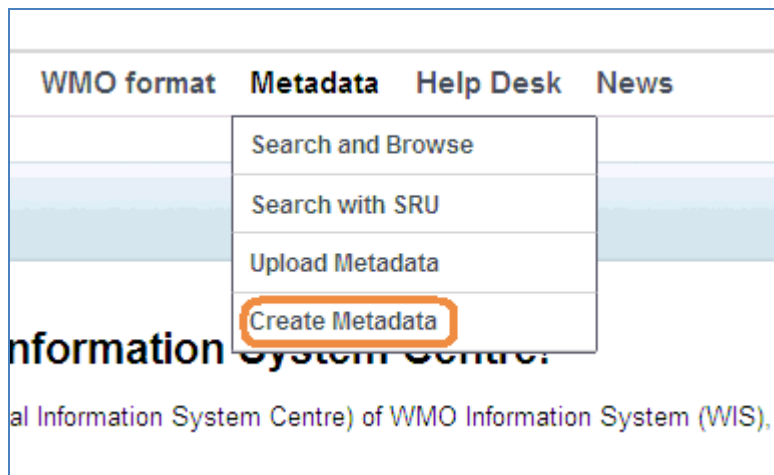


Figure 7: "Create Metadata" menu. This leads to the edit screen (Figure 6) with all blank fields.

4. UPLOAD METADATA INTO WEB

If you have detailed request on XML representation of metadata, you can simply upload XML you made. The "Upload Metadata" menu leads to an upload form (Figure 8). Please type filename on your computer in the text box, or press "Browse..." (or equivalent in your language) to find the XML file.



Figure 8: Upload form. The "Browse..." button takes different name depending on your language.

NOTE: uploaded XML is accepted only if it has valid structure of ISO 19139 standard (i.e. only if it validates against XML Schema.)

5. HARVESTING METADATA BY OAI-PMH

If you have many records to maintain (typically more than 100), or if you wish to automate the process of submitting metadata to GISC, we can harvest metadata in the standard protocol called OAI-PMH <http://www.openarchives.org/OAI/openarchivesprotocol.html>. You are to set up a web (HTTP) server providing OAI-PMH, and then GISC Tokyo accesses the server to get updates.

It is strongly encouraged to implement "deleted record" function, since it is the only automated way to let us know about what is obsolete in your repository.

Please contact GISC Tokyo about the detail.

6. REGISTRATION AND CONTACT

6.1 REGISTRATION PROCESS

- I Please contact GISC Tokyo (contact point below)
 - Ø Please mention clearly that you are working for GTS data management, and you need authorisation for metadata management.
- I GISC Tokyo will send you a registration form
- I Please return the form signed by P.R. of your country or appropriate delegate
- I GISC Tokyo will notify your username and password.

6.2 CONTACT

GISC Tokyo Administrator:

Mr Takahiro Saito
Senior Coordinator for International Telecommunication

Email: wis-jma@met.kishou.go.jp

Fax: +81-3-3211-8404

APPENDIX. INTERIM TEMPLATE TO CREATE METADATA FOR GTS OBSERVATIONAL MESSAGE

Please note this guideline is subject to change due to WMO's near-future standardisation of WIS metadata.

Item	Guideline
File Identifier	"urn:x-wmo:md:int.wmo.wis::TTAAiiCCCC", where TTAAiiCCCC is abbreviated headings. Example: "urn:x-wmo:md:int.wmo.wis::SMJPO1RJTD" for bulletin SMJP01 RJTD.
Parent Identifier	(leave it blank)
Hierarchy Level Name	(leave it blank)
DateStamp	The date the update gets in force. If time is unknown, please fill 00. Example: "2012-01-26T00:00:00Z" for the day of writing.
Organisation Name	"NC [City Name] - [Organisation Name]". Example: "NC Tokyo - Japan Meteorological Agency".
Email	The email address for technical contact on data management.
Facsimile	(Optional) fax number. Example: "+81-3-3211-8404"
Telephone	(Optional) telephone number in the same format.
Identifier code	(leave it blank)

Title	"TTAAii bulletin available from CCCC (City)" Example: "SMJP01 bulletin available from RJTD (Tokyo)"
Abstract	Description of the bulletin. Example: "Synoptic surface observation from Tokyo".
Topic Category	Always "climatologyMeteorologyAtmosphere"
Maintenance Frequency Code	Please choose appropriate one from pull-down menu. Typical values are "daily" and "6-hourly". Please use "hourly" for "HOURLY IF REQUIRED".
Theme Keyword	(If unsure, you can leave it blank.)
Place Keyword	Station identifier followed by its name. Example: "47662 Tokyo". Please press "Add" button if the message is compiled from more than one station's reports.
Temporal Keyword	(If unsure, you can leave it blank.)
Resource Constraints	"WMOEssential", "WMOAdditional", or "ICAO Annex 3 Meteorological Services for International Air Navigation". Please remove default value before typing in.
Geographic Bounding Box	Typical ranges of latitude/longitude the observation falls in. It doesn't have to be precise up to 0.1 degree or 100 % coverage on floating buoys. Example: if unsure, it is still very helpful and welcome to give "North: 60, West: 40, East: 150, South: 0" for any data from RA II, since it clearly states the data is limited to eastern/northern hemispheres.
Format Name	WMO Code Name like "FM12 SYNOP", "FM15 METAR", "FM18 BUOY" or "FM35 TEMP".
Format Version	(If unsure, you can leave it blank)
URL	(If unsure, you can leave it blank)
Protocol	(leave it blank)
Name	(leave it blank)