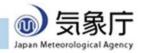# Introduction to DAR revision 0.4

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Guide 0: Essentials

What is DAR?

WIS = GTS + DAR

GTS is:

    for operational services (World Weather Watch)

    for time- & operation-critical usage

DAR is for the rest of you

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What is DAR?

DAR = Discovery + Access + Retrieval

Discovery

You can search whole-WIS catalog

Access

Ad-hoc browsing of recent global data

Retrieval

Subscribe to data

Start here: www.wis-jma.go.jp
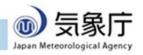
Guide 1: Discovery

You can Search DAR Catalogue

DAR Catalogue: collection of metadata records

Metadata record links to data or document

GISC's DAR Catalogue covers entire WIS

Not only global data available at GISC Tokyo

Start search at "metadata" menu

Now you're browsing catalogue

You can search the catalogue

Search

WIS_Center(OAI_Set):

Hong Kong Observatory ▾   ← Metadata Source

Full Text:

Osaka   ← Text in metadata record: only in title,
abstract, or keywords, or anywhere

Title:

Abstract:

Keywords:

North:

40   ← Bounding box: latitude & longitude ranges

West:

120

East:

150

South:

20

Search   Reset

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Each record describes a dataset

Metadata urn:x-wmo:md:int.wmo.wis::SMVX16RJTD

GTS bulletin SMVX16 RJTD

GISC-Cache:SMVX16RJTD

[-] *metadata detail*

file identifier: urn:x-wmo:md:int.wmo.wis::SMVX16RJTD
language: eng
character set: utf8
hierarchy level: dataset
hierarchy level name: Data or Resource in WMO Information System (WIS)

[+] contact

Click "+"(plus) button to expand complex content

date stamp: 1994-11-30T00:00:00Z
metadata standard name: ISO 19115-2 Geographic information — Metadata — Part 2:
Extensions for imagery and gridded data
metadata standard version: ISO 19115-2:2009-02-15

reference system info

reference system identifier

code: WGS 84
code space: The World Geodetic System 1984

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Data Access from Metadata

GTS data: link top of the page

Other data: section "distribution info" often has links to data

Metadata urn:x-wmo:md:int.wmo.wis.test5::UKJP01RJTD

GTS bulletin UKJP01 RJTD (test5)

GISC-Cache:UKJP01RJTD ←link to data

metadata detail
file identifier: urn:x-wmo:md:int.wmo.wis.test5::UKJP01RJTD
language: eng
character set: utf8
hierarchy level: dataset
hierarchy level name: Data or Resource in WMO Information System (WIS)
contact

date stamp: 2010-03-15T00:00:00Z
metadata standard name: ISO 19115-2 Geographic information — Metadata — Part 2:
Extensions for imagery and gridded data
metadata standard version: ISO 19115-2:2009-02-15

content info
attribute description: images : Anomalies of monthly DWD drought index
content type: thematicClassification
distribution info
distribution format
name: jpg   click to open box
version: not availiable
transfer options   URL is given in this part
on line
linkage
URL http://gisc.dwd.de/GISC_DWD/retrieve_data.do?pidpat=urn:x-wmo:md:de.dwd::rcc-cm.ecsm.drought.ano.images&toplevel=false
protocol: WWW:LINK-1.0-http--link
name: GISC Centre Region VI, node: Offenbach am Main
description: download products/data through GISC Centre Region VI, node: Offenbach am Main
data quality info

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Guide 2: Access

Two ways to find data

GISC Catalogue (described before)

Scope: entire WIS information

May link to external site

- JMA can't be responsible about content

GISC Cache

Scope: global distribution data only

All data on GISC Tokyo server

- Coherent service
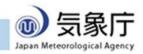
GISC Cache Entry Points

Listing of GISC Cache

Access[Open] Type[Alphanumeric] Category[Surface] Subcategory[SHIP] Region[North America, Central America and the Caribbean] Location[United States of America] Indicator[KWBC] ReferenceTime[2011-07-04T03:00:00Z]

2011-07-04T06:40:40

| SIVD30 RRV |

Access[Open] Type[Alphanumeric] Category[Surface] Subcategory[SHIP] Region[North America, Central America and the Caribbean] Location[United States of America] Indicator[KWBC] ReferenceTime[2011-07-04T02:00:00Z]

2011-07-04T06:40:40

| SNVD01 RRU |

Access[Open] Type[Alphanumeric] Category[Upper air] Subcategory[AIREP] Region[North America, Central America and the Caribbean] Location[Canada] Indicator[CWAO] ReferenceTime[2011-07-04T06:40:00Z]

2011-07-04T06:40:40

| UANT01 |

Access[Open] Type[Alphanumeric] Category[Surface] Subcategory[SHIP] Region[North America, Central America and the Caribbean] Location[United States of America] Indicator[KWBC] ReferenceTime[2011-07-04T06:00:00Z]

2011-07-04T06:40:40

All kinds of recent data
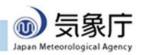
Newest first

So much traffic

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Want to Narrow Down Listing?

You can search

"WMO Format"

Select "Select and Browse"

Search window of GISC Cache

You can select data types or properties

Click "Browse" button

You'll see new listing of selected data

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When Browser Asks Password

The data is somewhat restricted

WMO additional data

OPMET (Aviation Weather) data

Data with other restrictions

Registration required

Contact:

Administrator of GISC Tokyo

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Guide 3: Subscription

(this is a bit tricky one)
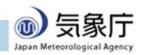
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Subscription at GISC Tokyo

Automatic download of near-realtime data

Downloading script runs on your computer

Similar to subscription of RSS

You can quickly fix if there's problem
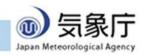
To Start Subscription

Go to GISC-Tokyo top: http://www.wis-jma.go.jp

Go to "WMO Format" to open a pull-down menu

Select "Subscribe/Download/Synchronize"

Step 1: select data policy

Select and Subscribe

Data Syndication

Access
- ☐ All
- ☐ Closed
- ☑ Open

Next

All Rights Reserv

Choose "Open" to select publicly available data

Add "Closed" for data with access control

You have to be registered in that case

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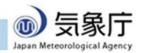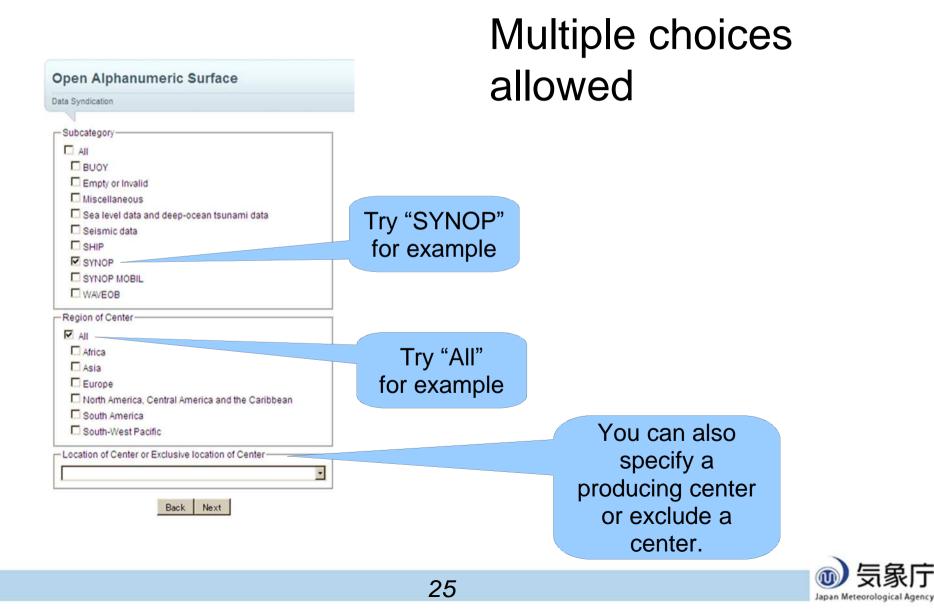
Step 2: select data type

Multiple choices not allowed; if you want two or more types of data, please repeat step 1 to 4 and create multiple shell scripts.

Step 3: select code form and WMO region

Multiple choices allowed

Open Alphanumeric Surface

Data Syndication

Subcategory
- ☐ All
  - ☐ BUOY
  - ☐ Empty or Invalid
  - ☐ Miscellaneous
  - ☐ Sea level data and deep-ocean tsunami data
  - ☐ Seismic data
  - ☐ SHIP
  - ☑ SYNOP
  - ☐ SYNOP MOBIL
  - ☐ WAVEOB

Region of Center
- ☑ All
  - ☐ Africa
  - ☐ Asia
  - ☐ Europe
  - ☐ North America, Central America and the Caribbean
  - ☐ South America
  - ☐ South-West Pacific

Location of Center or Exclusive location of Center

Back   Next

Try "SYNOP" for example

Try "All" for example

You can also specify a producing center or exclude a center.

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Step 4: select your environment

Category="Surface" Type="Alphanumeric" Access="Open" Subcategory="SHIP"

Data Syndication

Data Infomation

total file size per day (Yesterday): 4092418 (bytes)

total number of files per day (Yesterday): 10436

Your Infomation

download utility: Wget (Please install Wget for Linux or Wget for Windows to download data file.)

os and shell: Linux Bash and Wget

This time we assume Linux

directory of wget(.exe): /usr/bin

limit speed of download: 128kBytes/sec (1 Mbits/sec)

local directory to store download files: from_WIS-JMA

Click here

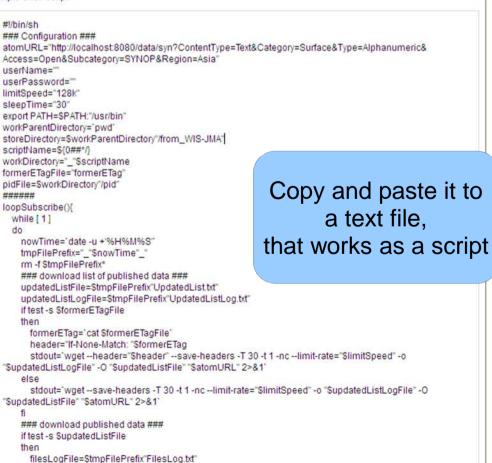Back | Show sample shell script to download files

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Result: script is shown

Your Infomation

download utility: Wget (Please install Wget for Linux or Wget for Windows to download data file.)
os and shell: Linux Bash and Wget
directory of wget(.exe): /usr/bin
limit speed of download: 128kBytes/sec (1 Mbits/sec)
local directory to store download files: from_WIS-JMA

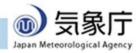Back | Show sample shell script to download files

Sample shell script

```
#!/bin/sh
### Configuration ###
atomURL="http://localhost:8080/data/syn?ContentType=Text&Category=Surface&Type=Alphanumeric&Access=Open&Subcategory=SYNOP&Region=Asia"
userName=""
userPassword=""
limitSpeed="128k"
sleepTime="30"
export PATH=$PATH:"/usr/bin"
workParentDirectory=`pwd`
storeDirectory=$workParentDirectory"/from_WIS-JMA"
scriptName=${0##*/}
workDirectory="_"$scriptName
formerETagFile="formerETag"
pidFile=$workDirectory"/pid"
######
loopSubscribe(){
  while [ 1 ]
  do
    nowTime=`date -u +'%H%M%S'`
    tmpFilePrefix="_"$nowTime"_"
    rm -f $tmpFilePrefix*
    ### download list of published data ###
    updatedListFile=$tmpFilePrefix"UpdatedList.txt"
    updatedListLogFile=$tmpFilePrefix"UpdatedListLog.txt"
    if test -s $formerETagFile
    then
      formerETag=`cat $formerETagFile`
      header="If-None-Match: "$formerETag
      stdout=`wget --header="$header" --save-headers -T 30 -t 1 -nc --limit-rate="$limitSpeed" -o "$updatedListLogFile" -O "$updatedListFile" "$atomURL" 2>&1`
    else
      stdout=`wget --save-headers -T 30 -t 1 -nc --limit-rate="$limitSpeed" -o "$updatedListLogFile" -O "$updatedListFile" "$atomURL" 2>&1`
    fi
    ### download published data ###
    if test -s $updatedListFile
    then
      filesLogFile=$tmpFilePrefix"FilesLog.txt"
```

Copy and paste it to
a text file,
that works as a script

This shell will endlessly repeat subscription

every 30 seconds for observation data,

every 5 minutes for GRIB data,

every 30 minutes for climate data.

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Linux Instructions

Check: /usr/bin/wget is installed (okay for most Linux)

Check: network connectivity
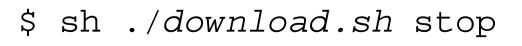
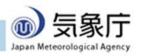 (set **$http_proxy** if you are behind firewall)

Save script to a text file

 (any name okay: say *download.sh*)

Start it as a background job

```
$ sh ./download.sh start > /dev/null 2>&1 <
  /dev/null &
```

Stop it

```
$ sh ./download.sh stop
```

Windows Instructions

Check: GNU Wget is installed

Check: Microsoft PowerShell 2.0 is installed

Open notepad

Paste script & save (suffix must be **.PS1**; say *download*.ps1)

Prepare: type on console

```
PowerShell -command "& {Set-ExecutionPolicy RemoteSigned}"
```

Start:

Open console & go to folder with script

```
PowerShell -WindowStyle hidden .¥download.ps1 start
```

Console vanishes if successful

Stop:

Open console & go to folder with script

```
PowerShell .¥download.ps1 stop
```

Guide 4: Help Desk

When in trouble...

Ticket System

> Web-based board you can write questions

> Registration Required

Online Documentations

Entering Ticket System

Go to "Help Desk" to open menu

Select "Ticket System"

Login

Please enter your login name and password

Contact us to get registered

Select "Project"

Please select "DAR" for most cases

Project view

You can post new issue

You can view existing issues processed

Posting New Issue

Please fill:

Brief title

Description

Click "Create" to submit

You will have email when GISC Tokyo staff respond

View issues

Listing of open issues (being processed)

To see closed (older) issues:

Set status "All"

Click "Apply"

Questions and Registration Request:

Please contact

w i s - j m a @ m e t. k i s h o u. g o. j p