

## **Change logs GEONETCast Toolbox v1.1 and v1.2**

### **Change Log GEONETCast toolbox XML version 1.1**

#### **Data Manager:**

Empty folders that are a destination folder for one of the items are no longer accidentally deleted. This solves the accidental deletion of the famous Other/RSS/MPEF when it was empty.

Wildcard characters \* and ? are now allowed in the filename pattern (thus not full regular expressions). Due to this change, you need to go once through your configuration file to append a \* to all patterns, otherwise they don't match the Geonetcast files anymore.

#### **MPEF:**

Included the CLA (transformed from BUFR into phase, low-medium and high cloud percentages per segment / pixel)

#### **VGT4Africa:**

Included new product BA (Burnt Area). Map value is yyjulianday (e.g. map value of 30219 is year 30 and julian day 219)

#### **Real time visualization:**

Included GOES-MSG TIR composite (from INPE), loop of 5 hours.

#### **Web Mapping Service:**

Included position of the ITCZ, for the Northern Hemisphere

Included NOAA weather charts. For Northern Hemisphere, Europe and Africa, Africa and Asia and Latin America and Africa. Forecast for up to 36 hours with wind speed, wind direction and temperature.

Flight level selected is FL050, meaning situation at 5000 feet, or at a standard barometric pressure of 850 millibar (assuming height approximation of roughly 33 feet per millibar):

$$\begin{aligned}1013.25 - 850 &= 163.25 \text{ mb} \\163.25 * 33 &= 5387.25 \text{ feet} \\5387.25 * 0.304 &= 1637 \text{ metres}\end{aligned}$$

This assumes standard barometric pressure (1013.25 mb at sea level – using standard datum), does not include local topography. This flight level is the lowest level and in many cases will correspond to ground surface phenomena for wind speed, direction and temperature.

## **Other modifications:**

### **VGT4Africa:**

Change of batch routines for import of DMP, NDVI, NDWI, SWB and VPI. These files are now decompressed using 7z.

### **Real time animations (for MSG and GOES-TIR composite):**

The routine to create a scheduled task has been changed as it did not work under WINDOWS-7 (the batch start directory had to be defined for the scheduled task to be properly initiated).

## **Change Log GEONETCast toolbox version 1.2**

### **SAF products**

- 7Z is now used for decompression of original files (this was bzip2-104-x86-win32.exe).

### **Vector data in sub-directory util\maps\**

- Coordinate system has been changed to latlon (this was initially set to latlonwgs84.scy).

### **Batch routines**

- All batch routines have been checked, for consistency some batch routines have been renamed, e.g. those used to import the MPEF and LRIT products and images respectively.

### **Service objects**

- For the various new import routines service objects have been included in the sub-directory \Util. These have also been copied into the sub-directory \System. When installing the toolbox all files for this toolbox subdirectory will be copied to the ILWIS\System sub-directory and are available to the user. Files in this category are georeferences, coordinate systems, lookup tables, etc.

### **Removed files**

- Some old files with extension DLL (cygpng12.dll and cygz.dll) have been removed from the sub-directory \util\. These files have been used for extraction of the GRIB formatted data. A new version of WGRIB is now used as the old version was causing instability under WINDOWS-7. Also bzip2-104-x86-win32.exe has been removed as it is no longer used.

### **New in this version**

- **MPEF**
  - NDVI from MSG, import of NDVI Min, Max and Mean from the whole field of view of the SEVIRI instrument.

- Due to current review of the FIR-A product, the FIR-G product has been added. This grid file is transformed to a point file (to open as table right-click with the mouse on the point file created).
- **DevCoCast**
  - **INPE**
    - Latin America: import routine added for the Fire Ascii from GOES and NOAA.
  - **PML**
    - Added various import routines for the marine products disseminated derived from MODIS and MERIS, for Africa (various) and Latin America (Brazil, MERIS only). The following products are now supported:
      - from MODIS: Chlorophyll-A, Turbidity Kd-490 and Water leaving radiances (nLw\_547 and nLw\_667);
      - from MERIS: Algal-1 and 2, and Water leaving radiances (nLw\_490, nLw510, nLw 560 and nLw\_619).

Regions covered for Africa are: Algeria-Tunisia, Egypt, Ghana, Libya, Madagascar (east and north-east), Morocco (north and south), Mozambique, Red Sea and Sierra Leone. Region covered for Latin America is Brazil.
- **TAMSAT**
  - New set of import routines for the product released after 11 March 2011, the file format has changed from TIF to NETCDF. Old routines are still available.
- **EAMNET**
  - Added various import routines for the marine products disseminated, derived from MODIS and MERIS, for Africa. The following products are now supported:
    - from MODIS: Chlorophyll-A, Turbidity Kd-490, Normalized Fluorescence Line Height and Sea Surface Temperature;
    - from MERIS: Algal-1 and 2, Total Suspended Matter and Yellow Substance.

Regions covered for Africa are: Angola, Cote d Ivoire, Guinea, Mauritania, Mozambique Channel, Namibia, Nigeria, Senegal, Somalia (north and south), Southern Africa (eastern, southern and western part), Tanzania.

- **AVISO**
  - AVISO altimetry products (pre-processed with BRAT) can be imported using different resolutions.
- **EAMNET**
  - Complete set of import routines for the various marine products produced through EAMNET, derived from MODIS and MERIS for Africa.
- **AMESD SADC**
  - Set of import routines is added to import the products that are disseminated through GEONETCast by AMESD-SADC, related to agriculture, drought, fire and weather forecasting. Not all import routines are operational at this moment.

Additional remarks: Use is made of sample data in a format that will be disseminated by GEONETCast in the near future.

Currently import routines have been checked for the following items:

- **Drought:**  
Vegetation performance maps:  
VCI  
SDVI  
PASG
- **Agriculture:**  
Agricultural products from Remote Sensing:  
Current rainfall estimates map  
Rainfall estimates compared with average (%)  
Cum rainfall map  
Cum rainfall map compared with average  
NDVI compared with average (difference)  
NDVI compared with average (%)  
WRSI  
SMI  
Cum DMP  
Cum DMP compared with average
- **CSIR Fire and SAWS Seasonal Forecast**  
All product import routines have been checked with sample data provided by CSIR and SAWS