

Info-Electronics Systems Inc.
Systèmes Info-Électroniques Inc.



Met-WebGIS (BCIP)



Training Presentation

May 2018



Environment and
Climate Change Canada

Environnement et
Changement climatique Canada

Objectives

- 🔥 Present the project context
- 🔥 Present our Met-WebGIS Innovation
- 🔥 Future development
- 🔥 Expected Collaboration
- 🔥 Initiation to Quick Start on Met-WebGIS
- 🔥 Questions et feedbacks



Presentation content

- 🔥 Introduction
- 🔥 Innovation Overview
- 🔥 Graphical User Interface
- 🔥 Operational Functionalities
- 🔥 Demo
- 🔥 Future Development
- 🔥 Exchanges



Introduction: Corporate info....

- IES is a Canadian company incorporated in 1981 acting in engineering, system integration and IT project management.
- IES has its Headquarter in Montreal, Canada with an office in New Delhi, India since 1995.
- IES develops, integrates and configure, solutions in measurement network, remote sensing, communication and processing in the area of earth observation, environment and hydrometeorology.
- IES has great national and international experience in delivering turn key solutions.
- IES has developed a strong partnership with reputable companies around the world for products and services of interest to its clients.
- IES has an ISO 9001:2008 certified Quality Management System.



CERTIFICATE
OF REGISTRATION

This is to certify that

Info-Electronics Systems Inc.

1755, St-Réjean, Suite 100, Dollard-des-Ormeaux, Québec H6B 2M9 Canada

operates a

Quality Management System

which complies with the requirements of

ISO 9001:2008

for the following scope of registration

Design, development, integration, installation and support of software and hardware global solutions for Satellite Remote Sensing, Meteorology, and Hydrology systems and services.

Certificate No.: CERT-0092861 Original Certification Date: November 24, 2006
File No.: 013800 Current Certification Date: November 21, 2015
Issue Date: November 20, 2015 Certificate Expiry Date: September 14, 2018

Heather Ollch

Heather Ollch
Asst. Head of
Policy, Risk and Certification



ISO 9001



Accreditation number No. 6212
Date of accreditation 2013-10-09



SAI GLOBAL



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Introduction: Products....

Weather Briefing Workstation for the aviation industry

**ULTIMA...
Your ultimate choice for WAFS**

WHY AN ULTIMA?
ULTIMA is a modular system and is:
 • A mature product for current and future needs.
 • Affordable and has the best quality/cost solution.
 • Open to Internet user interfaces.
 • Available from simple standalone to complex redundant multi-point configuration.

FEATURES
 • Interfaces with SADS and IBCS WAFS systems.
 • Handles Bulletins, T4 Charts, BUFR, GRIB, and imagery data.
 • Simultaneous reception, display and print capabilities.
 • Selective reception of user defined products.
 • Alert Message for user-specified products.
 • Aviation Weather and Terminal Forecasts.
 • Display vertical Cross Section along a route.
 • Data on geographical map background.
 • Product Archival.
 • Distribution of products to other systems via LAN or serial interface.

RECEIVE, STORE, DISPLAY, PRINT BULLETINS, GRIB, CHARTS AND IMAGERY

Graphical User Interface (GUI)
ULTIMA runs on Linux multitasking Operating System and provides a Graphical User Interface. This allows the simultaneous reception, display and printing of products, while at the same time, providing the user with an intuitive Graphical Interface to manipulate them.

Selection and Identification of Products
ULTIMA selects weather products using the WMO product header. By editing a Product Selection Table, you may specify the list of products to be accepted by your unit and those to be printed, received or those for which an alert is to be generated. You can also select any user's script to be executed on a specified product.

Aviation Weather and Terminal Forecasts
Report types TAF, METAR and SEBMET are retrieved, decoded and displayed in tabular and graphical format. Decoded data can be compared against a specified condition to extract only the reports meeting that specified condition (e.g. visibility less than five miles). In addition, decoders for UA and FT type reports can be provided. Pattern matching can also be defined and applied to the database to generate warnings.

Info-Electronics Systems Inc. www.ifs-ele.com/ultima/

Generic viewing application of satellite imagery and its derived products (Meteosat, GOES, INSAT, etc..)

**GenericViewer...
Your Genius View on Weather Data**

ABOUT GenericViewer
The purpose of the GenericViewer application is to provide meteorologists and researchers with a powerful tool to integrate all the weather data within the same workstation. It provides the capability to visualize, analyze, and combine various products with each other and with GIS data. The resulting graphical products can be saved in different formats.

The application has the capability to interface with several sources of data such as: GTS, WAFS, MCD, INGT, IMDPO, METEOSAT, GOES, TIROD, and EEC Rawdat.

The GenericViewer Application is a Linux-PC based solution and is designed around a core module complete with the required Plug-in modules.

Core Module:
The core module provides all the facilities for display, screen navigation, file management and save facilities.

Plug-in Modules:
These modules load all the facilities specific to the ingested data type. They provide the application with the following facilities:
 • Interfaces to decode and read the information from the ingested data.
 • Query dialog interfaces to display the data.
 • Analysis dialog interfaces or programs specific to the data type.

SYSTEM DESCRIPTION
Application Functionality
The application consists of a multiple data type and is able to analyze a full range of meteorological data: Conventional, gridded numerical forecast, radar and satellite data.
 • Accesses and analyzes the following satellite data sets: GOES, METEOSAT, TIROD, INSAT, etc...
 • Accesses and analyzes GIS data format from GRASS or other GIS packages.
 • Performs standard meteorological analysis programs for conventional observation and grid-point data.

Info-Electronics Systems Inc. www.ifs-ele.com/genericviewer/

Web-based application for display of GIS-based information and analysis for Meteo, Hydro, etc.. Base for Decision Support System

New

Web-SIG
Système d'Information
base Web-SIG

... monitoring,
analyse, alerte ...
Système d'Aide à la Décision



Introduction: Innovation....

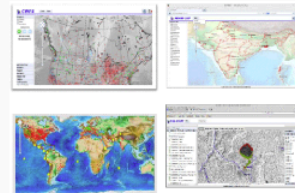


Pre-qualified innovation: Met-WebGIS

Call 007 innovator, Info-Electronics HP Systems [Inc.](#), from Dollard-des-Ormeaux, Quebec has developed Met-WebGIS.

The innovation

Met-WebGIS is a software system that manages geography-based data for environmental applications. It allows users to process, collect, analyze, render and display meteorological data from all sources to generate, customize and distribute advanced weather-based products.



Flexible customization capabilities

Similar products are often desktop-based. Existing web-based products are generic and allow very limited product customization capability to users. The Met-WebGIS software offers the customization flexibility that is missing from similar products, allowing the user to manipulate weather information in various formats anywhere in the world on any simple web browser.

With this unique feature, users can customize their products in terms of area of interest, resolution, and contextual information such as weather satellite and radar imagery, surface observations, numerical weather forecasts, lightning, aerodrome forecasts, aviation warnings, ocean conditions, and forest fire warnings.

World wide access

Met-WebGIS is a web-based software system that can be accessed from anywhere in the world. The system is not only more workable. The accessibility tool makes it easy to maintain up-to-date information in the system.

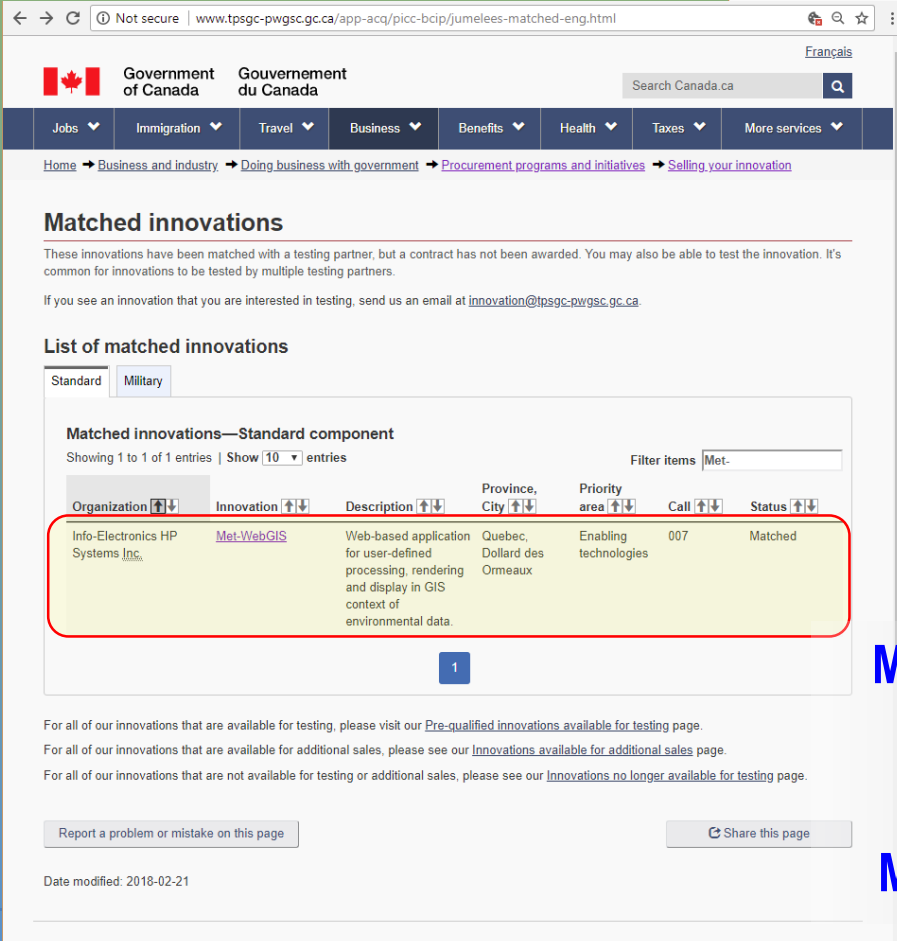
From weather to weather

Organizations that deal with weather, meteorology, hydrology, aviation, agriculture, forestry, and other related fields (such as Environment and Climate Change Canada) could benefit from this innovative weather-based system.

For example, Met-WebGIS could be set up as a Decision Support System for applications disaster management with operations systems.

More information

For more information about this innovation and how to use it, please contact us at



Met-WebGIS has been prequalified by Build in Canada Innovation Program (BCIP)
Met-WebGIS have been matched with Meteorological Services of Canada as testing partner

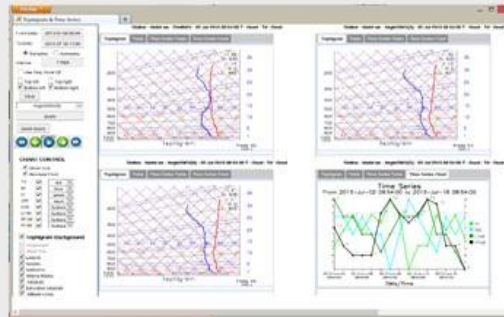
Introduction: Use cases...

Examples of Web-GIS Information System Applications

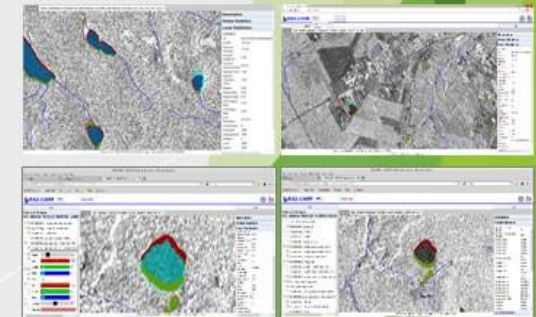
Collaborative Weather Forecasting System



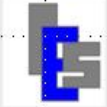
Micro-Wave Radiometer Network Application



RADARSAT-2 for Canvec Hydrological Information Management System



Introduction: Base for Decision Support System



Your best fit Web-GIS based Information System for your application ..

You are clicks away from your monitoring and decision support activities

Data display



Thematic



Analysis



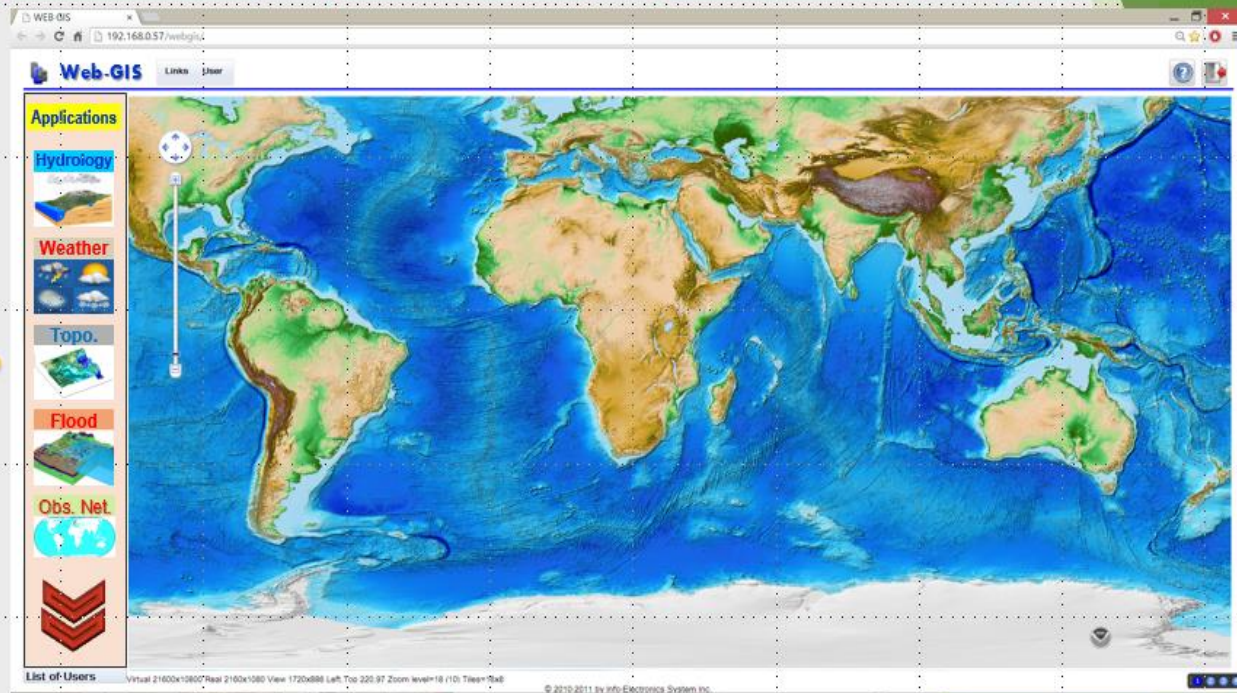
Decision

In-situ observation network

Earth Observation remote sensing

Numerical Models outputs

GIS Database for thematic information

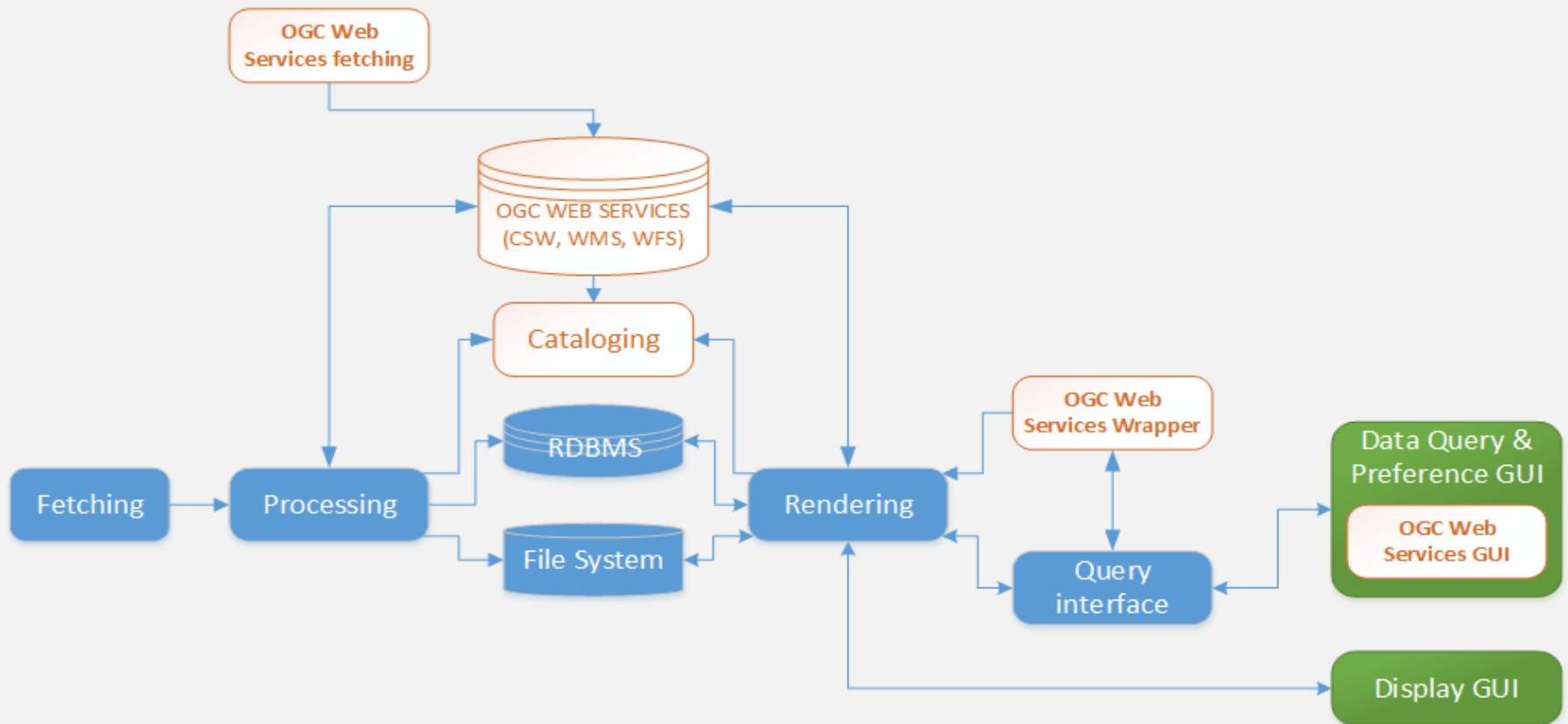


Overview: Design...



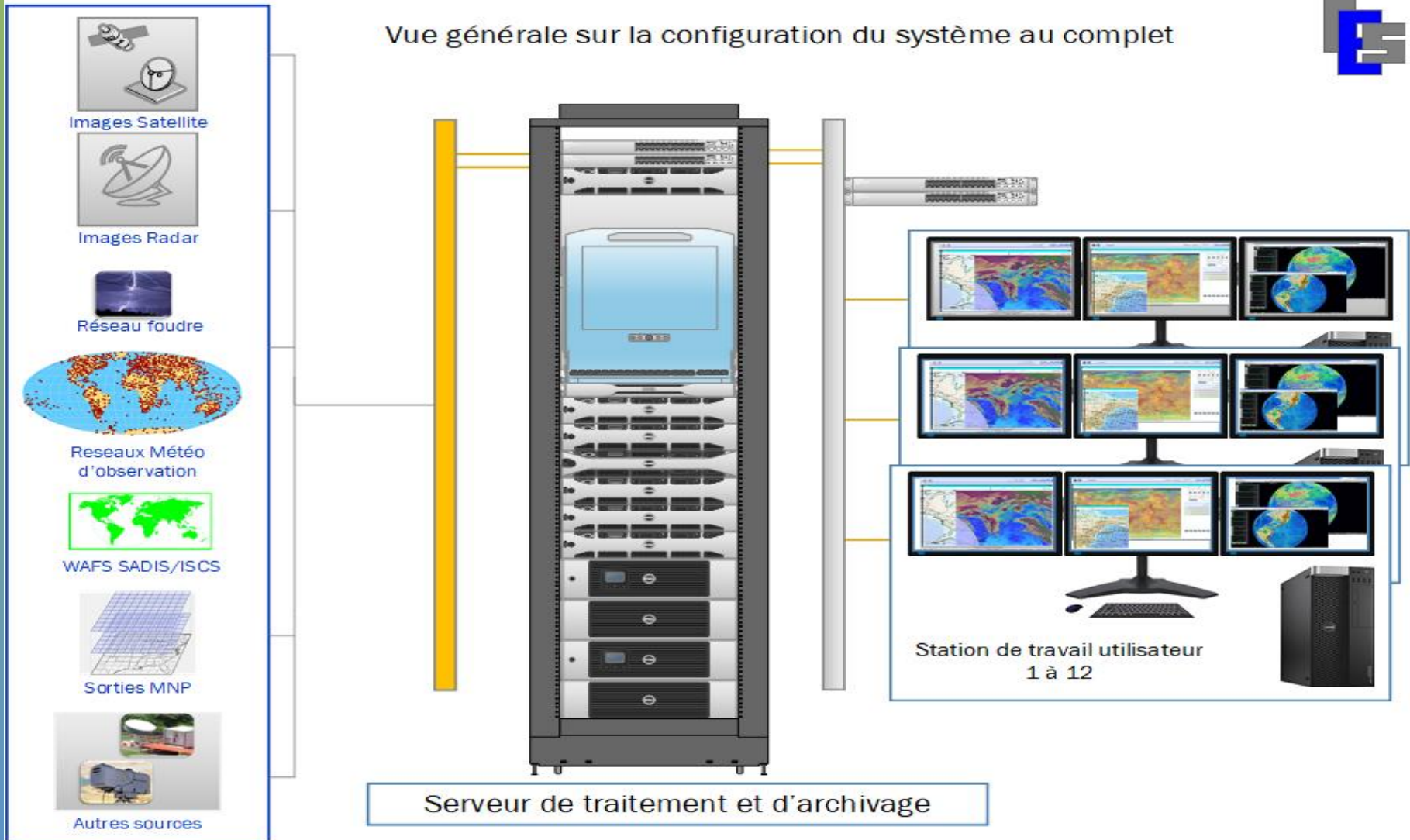
WebGIS Overall view – Vue globale

GRIB IMAGES OPMETS SPECIAL



Overview: Met-WebGIS Example of System configuration

Vue générale sur la configuration du système au complet



Overview: About Met-WebGIS

- Software application for implementing operational weather briefing and forecasting workstations using Client-Server technology with zero-foot-print client. It allows professional users to process, congregate, analyze, render and display meteorological data from all sources to generate, customize and distribute advanced weather based products for a multitude of special use and decision making. It uses regular Web browsers on the client system.
- Met-WebGIS offers the end users the flexibility to interactively query, build and visualize weather products customized to the application specifics and the area of interest context making use of the back-end services, the enabled GIS functionalities and the application's Web-based graphical user interface.
- Met-WebGIS could be set-up to access and fetch data from a multitude of both publicly available as well as client's private and restricted sources. Met-WebGIS could be set-up to ingest WMS and WFS enabled data as well as raw data in its native or post-native format.



Overview: Fonctionnalités

Display

Georeferenced display, Information coherence, Information Overlay, Styles customization, etc...

Thematic

Area of Interest, Auxiliary information, Contextual Static GIS information, etc...

Analysis

Filtering, Calculation of Derived products, Comparison (Overlays and multi-panel display), Animation, etc...

Decision

Alarm/ warning, Report generation, result validation, etc...

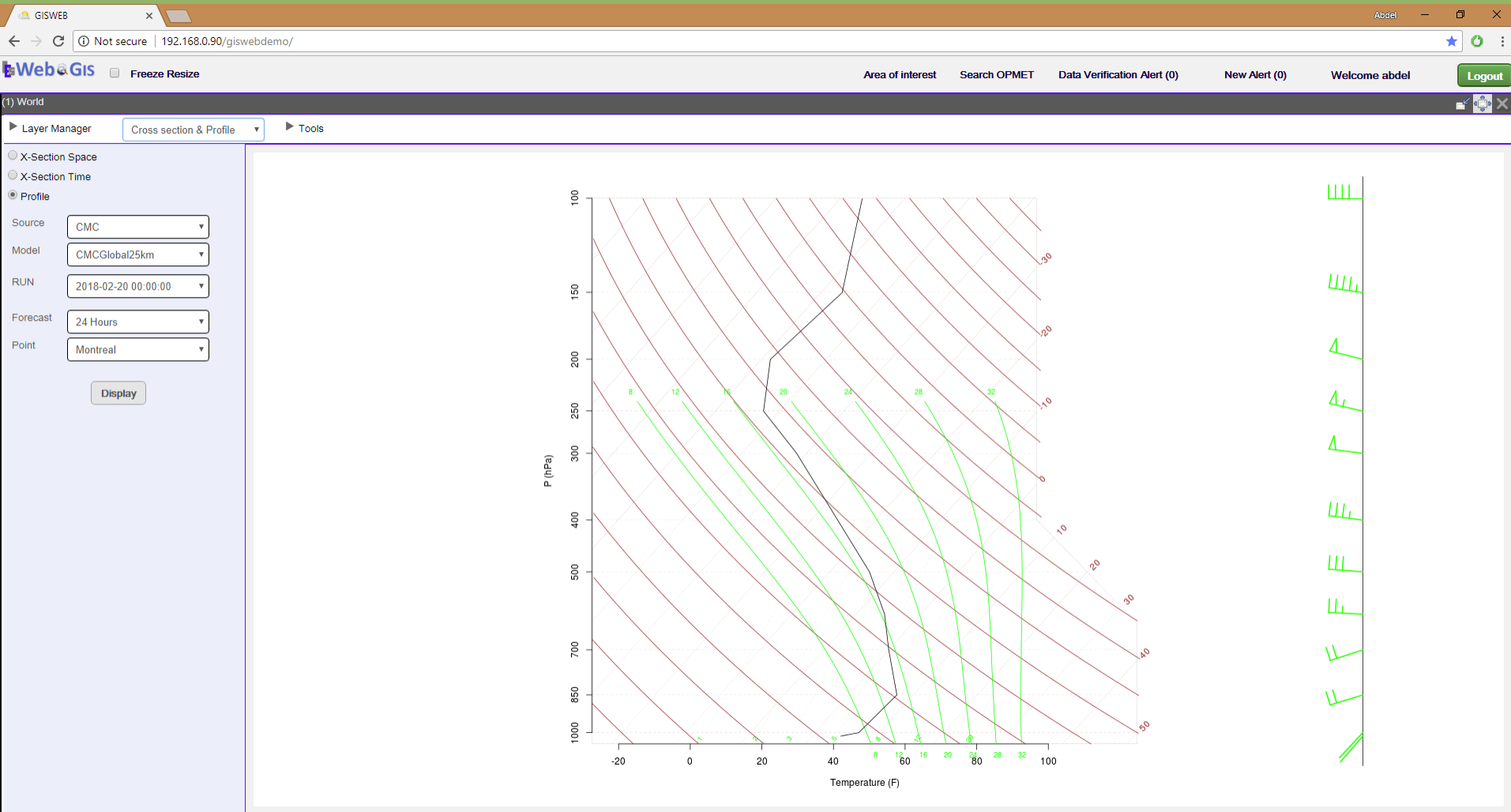


Graphical User Interface: Met-WebGIS

- 🔥 Portal (Menu et sections)
- 🔥 Area of Interest
- 🔥 Static layers data
- 🔥 Data sources
- 🔥 Data rendering
- 🔥 Display generation
- 🔥 Image and animation generation
- 🔥 And more...



Graphical User Interface: Profiles



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Data Ingest Status: ●



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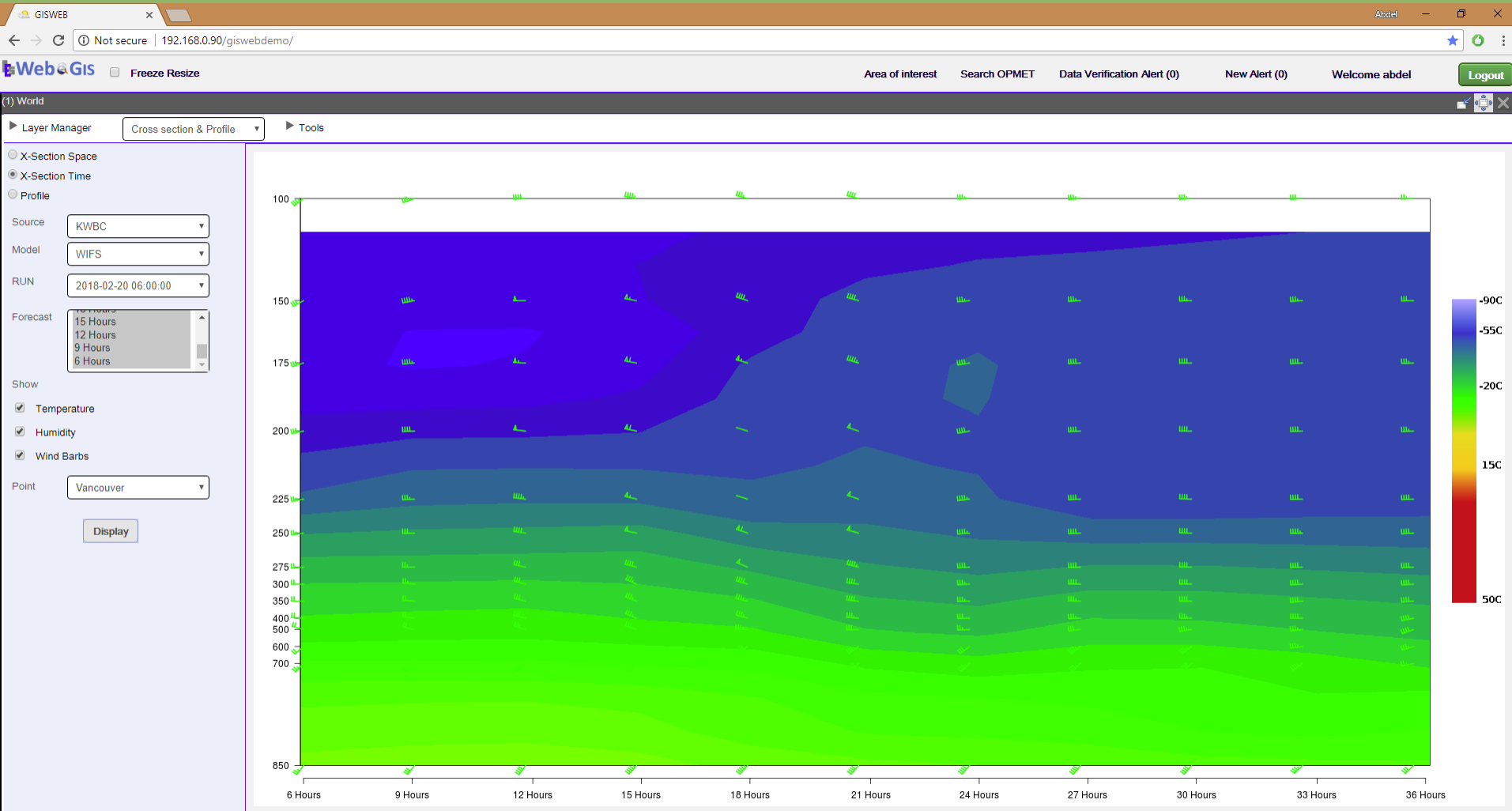
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Graphical User Interface: Time Cross-Section



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Data Ingest Status:



Environment and
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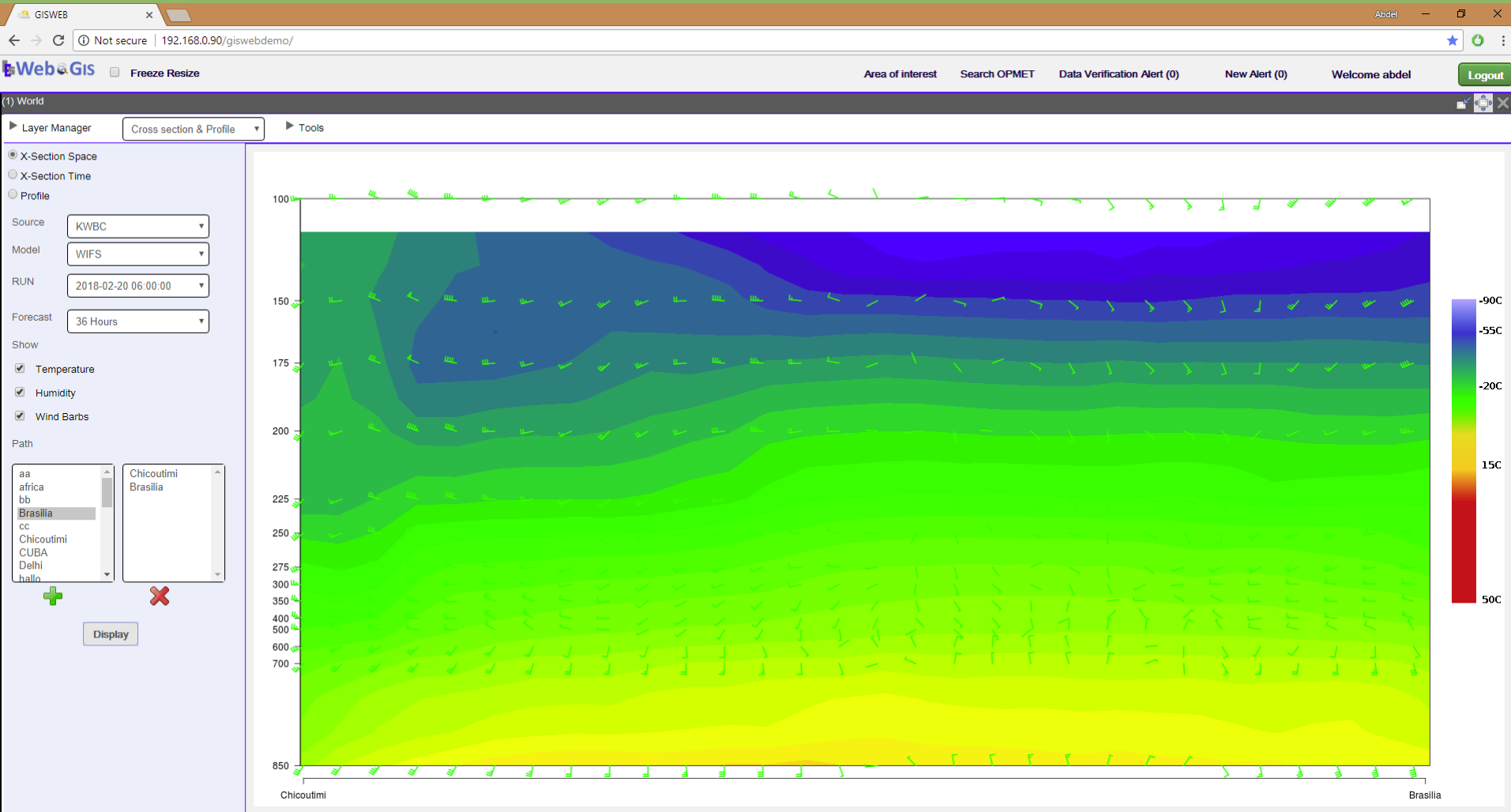
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Systèmes Info-Électroniques Inc.

Graphical User Interface: Space Cross-Section



Graphical User Interface: OPMET

WebGIS | Freeze Resize | Area of Interest | Search OPMET | Data Verification Alert (0) | New Alert (171) | Welcome abdel | Logout

TTAAII Search

Include unverified data

Aoi: World

WMO ICAO

Period: Last Hour

WMO Header (TTAAII DDHHMM,TTAAII ...)

SAJS21 221900, SAJS21 221918, SAJS21 221920, !

TT	AA	DD	HH	MM
SP	US	21	22	18
FT	MX	22		19
WA	FI	23		20
SA	GI	24		
WS	UK	25		
	GR			
	GL			
	FK			
	TU			
	NO			
	DL			
	IY			
	OS			
	BX			
	CY			
	AH			
	SN			
	LT			
	IS			
	DN			
	LV			
	SW			
	EO			
	FA			
	NP			
	AB			
	ZS			
	BE			
	NL			
	C.O			
	MS			

83 message(s)

Display

SAJS25 KWBC 221900 RRH

METAR PABR 221853Z 13012KT 10SM BKN026 BKN035 OVC043 M08/M09 A2937=

METAR PACD 221853Z AUTO 16039G59KT 6SM -RA BR OVC065 04/03 A2954=

METAR PAEN 221853Z 04003KT 8SM VCFG CLR M20/M22 A2981=

METAR PAFA 221853Z 02004KT 3/4SM -SN BR VV010 M14/M16 A2979=

METAR PAJN 221853Z 00000KT 10SM FEW008 OVC095 M06/M06 A2952=

METAR PAKN 221854Z 11005KT 10SM BKN110 M07/M08 A2985=

METAR PAKT 221853Z 14005KT 6SM R11/6000VP6000FT BR SCT007 OVC012 06/06 A2941=

METAR PANC 221853Z 00000KT 10SM CLR M16/M17 A2980=

METAR PAOM 221853Z 06004KT 10SM CLR M03/M06 A2959=

METAR PAOM 221853Z 06004KT 10SM CLR M03/M06 A2959=

METAR PAOR 221853Z 00000KT 3/4SM -SN BR BKN016 BKN025 OVC030 M26/M28 A2981=

METAR PAOT 221853Z 23012KT 9SM OVC033 M05/M08 A2954=

METAR PASC 221853Z 15007KT 4SM -SN BR BKN022 BKN080 OVC110 M13/M14 A2953=

METAR PASI 221853Z 32005KT 10SM -RA BKN049 OVC060 03/00 A2941=

METAR PAVD 221856Z VRB06KT 10SM FEW070 FEW100 SCT150 M03/M12 A2951=

METAR PAWG 221856Z 31004KT 8SM -FZRA SCT005 BKN010 OVC030 00/M01 A2946=

METAR PKWA 221900Z AUTO 06007KT 10SM SCT022 28/24 A2975 RMK AO2 T02760237=

SAJS23 KWBC 221900 RRO

METAR TNCM 221900Z 10007KT 060V160 9999 SCT021 29/23 Q1012 A2990 NOSIG=

SAJS25 KWBC 221900 RRI

METAR PASD 221856Z 21018KT 7SM -RA BKN017 BKN025 OVC033 04/01 A2996 RMK FK WND 22027/65 PRESFR KH=

SAJS23 KWBC 221900 RRP

METAR KTMB 221853Z COR 12005KT 10SM SCT030 28/18 A2989 RMK AO2 SLP122 T02780183=

SAJS23 KWBC 221900 RRL

METAR KJAX 221856Z 07011KT 10SM SCT036 BKN250 24/18 A2995 RMK AO2 SLP144 T02390156=

METAR KMOB 221856Z 01015G23KT 10SM FEW090 SCT150 BKN220 18/03 A2996 RMK AO2 SLP147 T01790033=

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Operational functionalities: Alarm Management

Browser: wafs.info-electronics.net/giswebdemo/

WebGIS | Freeze Resize | Area of Interest | Search OPMET

Data Verification Alert (0) | New Alert (141) | Welcome abdel | Logout

Layer Manager | Map | Tools

WMO Header | Acknowledge all | Period (Hours) 1

- 2017-11-26 20:25 - SPUS22 KWBC 262022 -
- 2017-11-26 20:25 - WSSR20 WSSS 262020 -
- 2017-11-26 20:25 - SPUR30 UKMS 262018 -
- 2017-11-26 20:25 - SPUS24 KWBC 262022 -
- 2017-11-26 20:25 - SPCN31 CWAO 262017 -
- 2017-11-26 20:25 - SPUS24 KWBC 262020 -

WMO Message

SPECI UKLL 262018Z 32002MPS 2800 -RASN OVC003 01/M00 Q1017 R31/290060 NOSIG=

Filter: INFO | Acknowledge All

- 2017-11-26 20:43:34 - INFO - Signature of data file [262040.DAT] is VERIFIED.
- 2017-11-26 20:43:34 - INFO - Processing starts for [20171126_2040.DAT]
- 2017-11-26 20:43:33 - INFO - Data file [262040.DAT] downloaded successfully. Renamed to...
- 2017-11-26 20:43:31 - INFO - Digital Certificate has been VERIFIED.
- 2017-11-26 20:38:30 - INFO - Processing starts for [20171126_2035.DAT]
- 2017-11-26 20:38:30 - INFO - Signature of data file [262035.DAT] is VERIFIED.
- 2017-11-26 20:38:29 - INFO - Data file [262035.DAT] downloaded successfully. Renamed to...
- 2017-11-26 20:38:28 - INFO - Digital Certificate has been VERIFIED.
- 2017-11-26 20:33:27 - INFO - Signature of data file [262030.DAT] is VERIFIED.
- 2017-11-26 20:33:27 - INFO - Processing starts for [20171126_2030.DAT]
- 2017-11-26 20:33:26 - INFO - Data file [262030.DAT] downloaded successfully. Renamed to...
- 2017-11-26 20:33:24 - INFO - Digital Certificate has been VERIFIED.

Log Message

Zoom=0 -178.23 86.68 Long=-178.230968 Lat=86.683047

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Operational functionalities: Alarm Management

The screenshot displays a web-based GIS application interface. At the top, the browser address bar shows `wafs.info-electronics.net/giswebdemo/`. The application header includes the 'WebGIS' logo, a 'Freeze Resize' checkbox, and buttons for 'Area of interest' and 'Search OPMET'. On the right, it shows 'New Alert (217)', 'Welcome sam', and a 'Logout' button.

The main interface features a 'Layer Manager' on the left with a 'Map' dropdown and 'Tools' button. Below it is a 'Quick query' section with 'Area of interest' (Source/Model: KWBC/SCS), 'Products' (Grib, SIGWX), and 'WIND TMP' (100 hPa). There are also checkboxes for 'DEM', 'boundingBox', 'adminCountries', and 'statesProvinces', along with a 'Macro' section containing a 'Display' button and an 'Advanced query' link.

The central map area shows a grid with coordinates (140E to 170E, 60N to 50N) and a red volcano icon labeled 'SFC/FL200'. A detailed alarm window is open, displaying four map panels for different times: 10/1420Z, 10/2020Z, 11/0220Z, and 11/0820Z. The 11/0820Z panel shows 'NO VA EXP' (No Volcanic Ash Expansion) and a red volcano icon labeled 'SFC/FL190'. Below the maps, the alarm details are shown:

VA ADVISORY
DPG: 20170310/1500Z
VAAC: TOKYO
VOLCANO: KLYUCHEVSKOY 300260
AREA: RUSSIA
SUMMIT ELEV: 4754M
ADVISORY NR: 2017/43
INFO SOURCE: HIMMARI-8
AVIATION COLOUR CODE: NIL

ERUPTION DETAILS: VA EMISSIONS CONTINUING
RMM: NIL
NXT ADVISORY: 20170310/1800Z

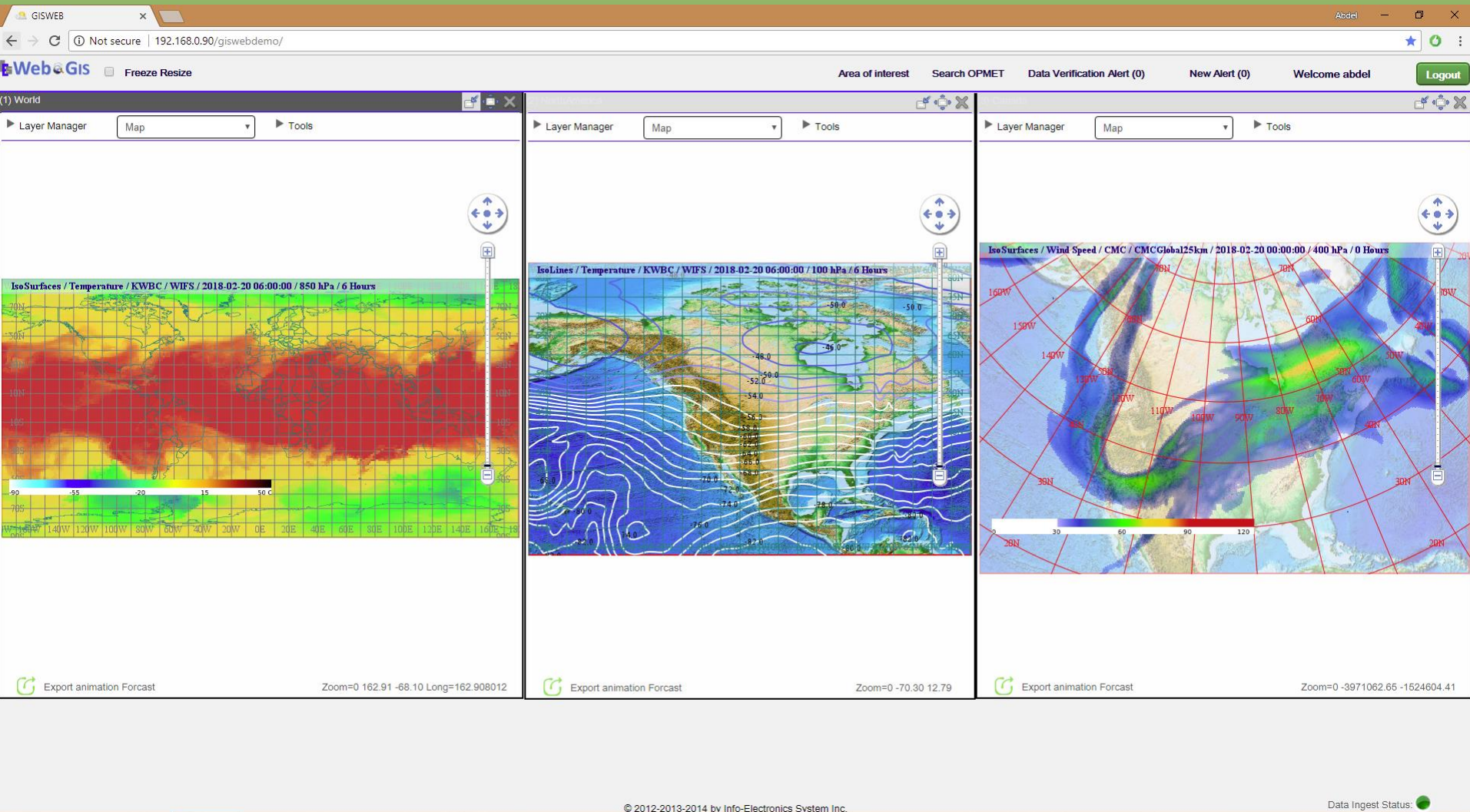
The right side of the interface shows a 'WMO Header' section with 'PFXD01 RJTD 101500', an 'Acknowledge all' button, and a 'Period (Hours)' dropdown set to '1'. Below this is a 'WMO Message' section with the text '2017-03-10 15:05 - PFXD01 RJTD 101500 -' and a 'Click to load the png' link.

At the bottom of the map, the coordinates are displayed as 'Zoom=0 130.97 -54.26 Long=130.968523 Lat=-54.261501'.

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Operational functionalities: Multi-Panels



Graphical User Interface: Maps

The screenshot displays a web browser window with the URL `192.168.0.90/giswebdemo/`. The application header includes the 'WebGIS' logo, a 'Freeze Resize' checkbox, and navigation links for 'Area of interest', 'Search OPMET', 'Data Verification Alert (0)', 'New Alert (0)', 'Welcome abdel', and a 'Logout' button. The main interface features a 'Layer Manager' on the left with a 'Map' dropdown and 'Tools' button. Below this is a 'Quick query' section and an 'Advanced query' section with dropdowns for 'World' and 'Abdel-Template', and buttons for 'Refresh AOI', 'Open Macro', and 'Save as Macro'. A 'Product type' dropdown is set to 'Grib'. There are checkboxes for 'Legend' (set to 'upper left'), 'Parent index', and 'Show All Layers'. A list of layers includes 'DEM' and 'BoundingBox', both with checked boxes. At the bottom of the layer manager are buttons for 'Up', 'Down', 'Add', 'Delete', 'print', 'Apply', and 'Anim'. The central map shows a global view with a color-coded topographic/ bathymetric overlay. A zoom control is visible on the right side of the map. At the bottom of the map area, the coordinates are displayed as 'Zoom=0 -76.26 -89.34 Long=-76.263736 Lat=-89.340659'.

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Data Ingest Status: ●



Graphical User Interface: Area of Interest

The screenshot displays the Web-GIS graphical user interface. At the top, the browser address bar shows the URL `192.168.0.90/giswebdemo/`. The interface includes a navigation bar with the following elements:

- Area of interest:** A dropdown menu with options: Open, Create, Modify, Delete, and Set Default. A list of saved AOIs is shown below, including World, World 360, ICAO A, ICAO ASIA, ICAO B, ICAO B1, ICAO C, ICAO D, ICAO E, ICAO F, ICAO M, ICAO MID, ICAO EUR, ICAO G, ICAO H, ICAO I, ICAO L, ICAO NAT, ICAO J, ICAO K, Africa, Mer-Africa, PolSte-Abdel, PolSte-Abdel-S, New00002, New000sam, NorthAmerica, Radar, Radar (1), UKMet_test, portrait_map, BC-Map, SA_Africa, Canada, Afrique, Test01, Test02, Test03, and Test004.
- Search OPMET:** A search input field.
- Data Verification Alert (0):** A notification for data verification alerts.
- New Alert (0):** A notification for new alerts.
- Welcome abdel:** A user greeting.
- Logout:** A button to log out the user.

The main map area shows a world map with a red rectangular Area of Interest (AOI) over the North Atlantic region. A smaller inset window shows a detailed view of the AOI with a grid overlay. Another inset window shows a polar projection map of the AOI. The interface also includes a Layer Manager, Tools, and a Data Ingest Status indicator at the bottom right.



Operational functionalities: Static Layers

The screenshot displays the GISWEB application interface. The browser address bar shows the URL `192.168.0.90/giswebdemo/`. The application header includes navigation links: "Area of interest", "Search OPMET", "Data Verification Alert (0)", "New Alert (0)", "Welcome abdel", and a "Logout" button. The main interface is divided into a left-hand "Layer Manager" panel and a central map area.

The "Layer Manager" panel on the left contains the following elements:

- Layer Manager:** A dropdown menu set to "Map" and a "Tools" button.
- Quick query:** A section for rapid data retrieval.
- Advanced query:** A section with input fields for "Canada" and "Abdel-001", and buttons for "Refresh AOI", "Open Macro", and "Save as Macro".
- Product type:** A dropdown menu set to "Static layer".
- Legend:** A dropdown menu set to "upper left" and a "Parent index" checkbox.
- Show All Layers:** A checked checkbox.
- Layer List:** A list of layers with checkboxes: DEM, BoundingBox, graticules1, graticules5, graticules10, statesProvinces, adminCountries, and Airport. The "Airport" layer is highlighted with a purple border.
- Actions:** Buttons for "Up", "Down", "Add", "Delete", "print", "Apply", and "Anim".

The central map area shows a topographic map of Canada with a grid overlay. The map is annotated with various letters and symbols, likely representing data points or features. A zoom control is visible in the top right corner of the map area.

At the bottom of the map area, the coordinates are displayed: `Zoom=1 -1604650.79 304137.30 Long=-117.478168 Lat=49.158399`.

At the bottom of the application window, the copyright notice reads: `© 2012-2013-2014 by Info-Electronics System Inc.` and the "Data Ingest Status" is shown as a green indicator.



Operational functionalities: Static Layers

The screenshot displays a web-based GIS application. The browser address bar shows the URL `192.168.0.90/giswebdemo/`. The application header includes navigation links for "Area of interest", "Search OPMET", "Data Verification Alert (0)", "New Alert (0)", and "Welcome abdel", along with a "Logout" button. The main interface is divided into a left-hand control panel and a central map area.

Layer Manager Panel:

- Quick query: Canada, Refresh AOI
- Advanced query: Abdel-001, Open Macro, Save as Macro
- Product type: Geomet
- Legend: upper left, Parent index
- Show All Layers:
- Layer list:
 - OpenStreetMap
 - bEM
 - BoundingBox
 - graticules1
 - graticules5
 - graticules10
 - statesProvinces
 - adminCountries
 - Airport
 - WMS - RADAR - Radar precipitation rate (Rain)
- Buttons: Up, Down, Add, Delete, print, Apply, Anim

Map Area:

- Title: WMS / RADAR - Radar precipitation rate (Rain) / 2018-02-20 13:50:00
- Map content: A radar precipitation map of the New York region, overlaid on a street map (OpenStreetMap). The precipitation is shown in shades of green, with darker green indicating higher intensity. The map includes various geographical features like rivers, roads, and city boundaries.
- Map controls: A navigation wheel and a vertical scale bar are visible on the right side of the map.
- Coordinates: Zoom=3 1091768.95 -221339.19 Long=-80.987899 Lat=45.942418

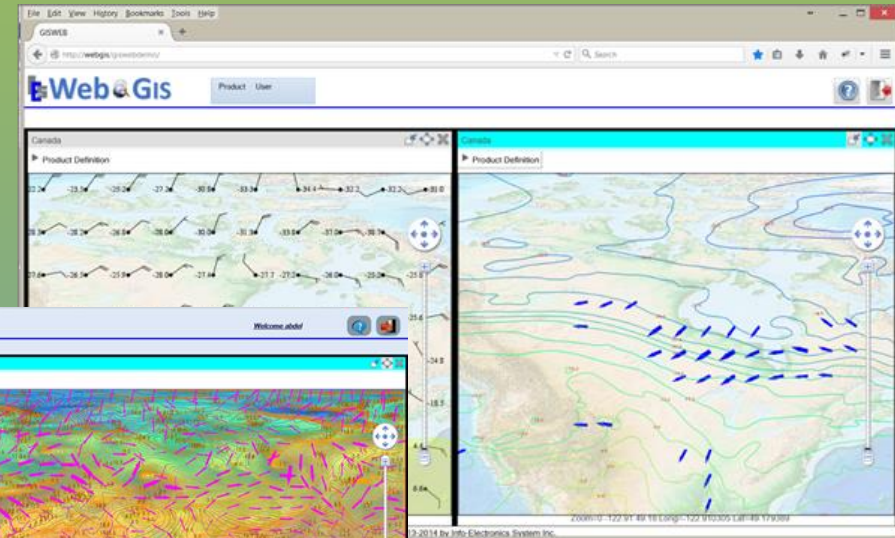
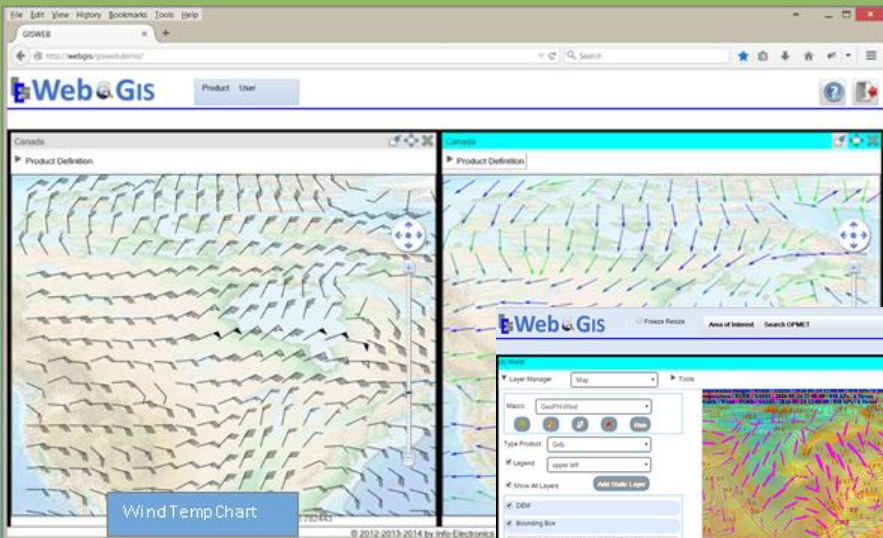
Export animation Forecast

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Data Ingest Status: ●

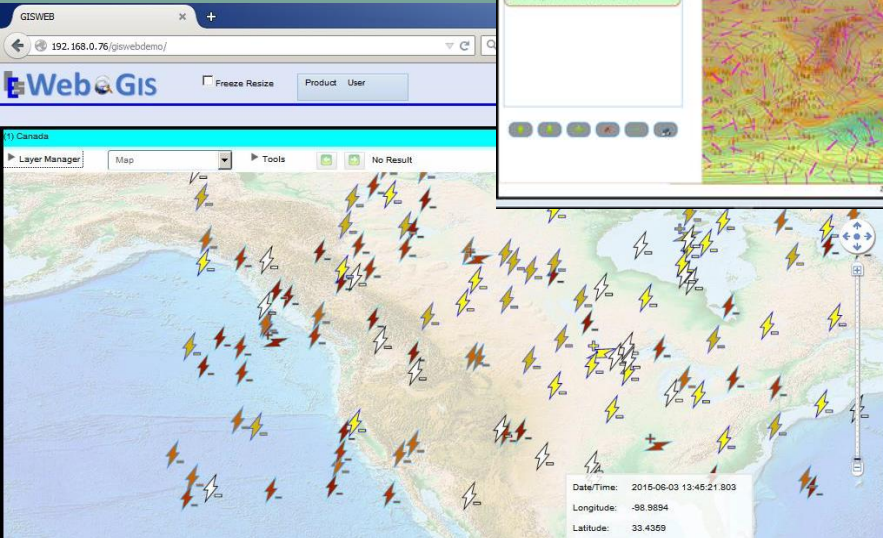


Operational functionalities: Display Generation



Layer Manager

- DEM
- Includes: Sea Level Height - 800 MPA - 6 Hours
- Includes: Temperature - 800 MPA - 6 Hours
- Includes: Temperature - 800 MPA - 6 Hours
- Areas By Month: 3000 - 800 MPA - 6 Hours



Period	CG+	CG-	IC+	IC-
0-10 min	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10-20 min	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20-30 min	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30-40 min	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40-50 min	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
50-60 min	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
All	824	235		

Refresh

Type	24H	Pct	60m	Pct
CG+	31	3.8	12	5.1
CG-	306	37.0	111	47.2
IC+	387	47.0	76	31.9
IC-	101	12.3	37	15.7
All	824		235	

Date/Time: 2015-06-01 16:59:33 493
Longitude: -98.6079
Latitude: 49.5939
Type: Inter-Cloud (IC)
Current (kA): -8
Polarity: Negative (-)



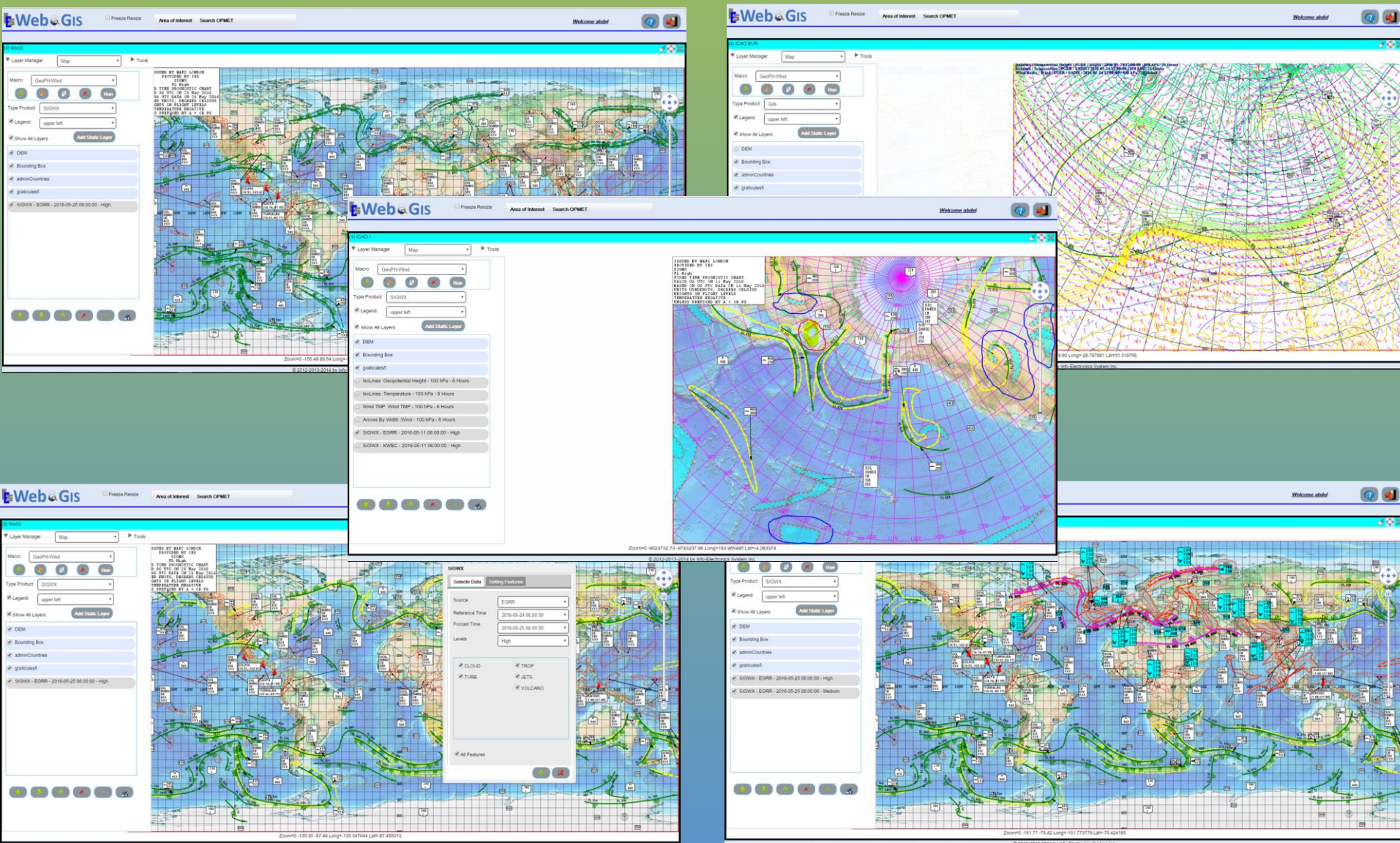
Environment and Climate Change Canada

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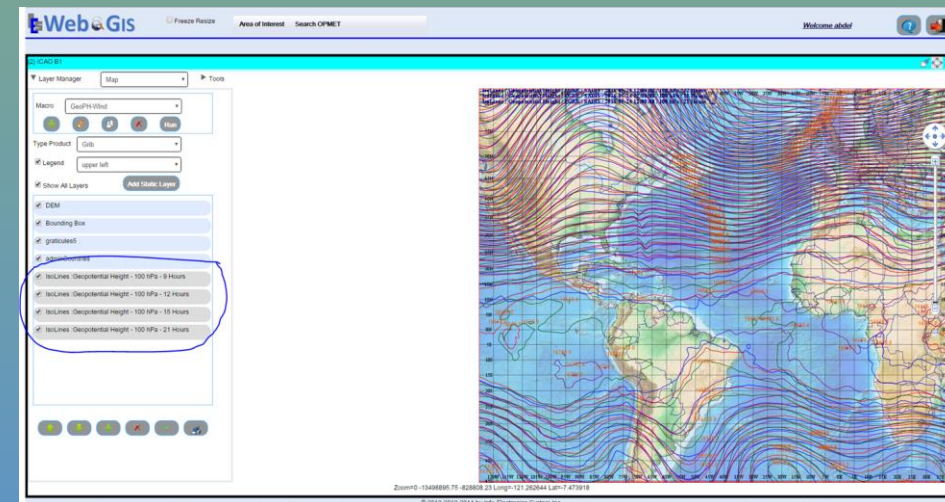
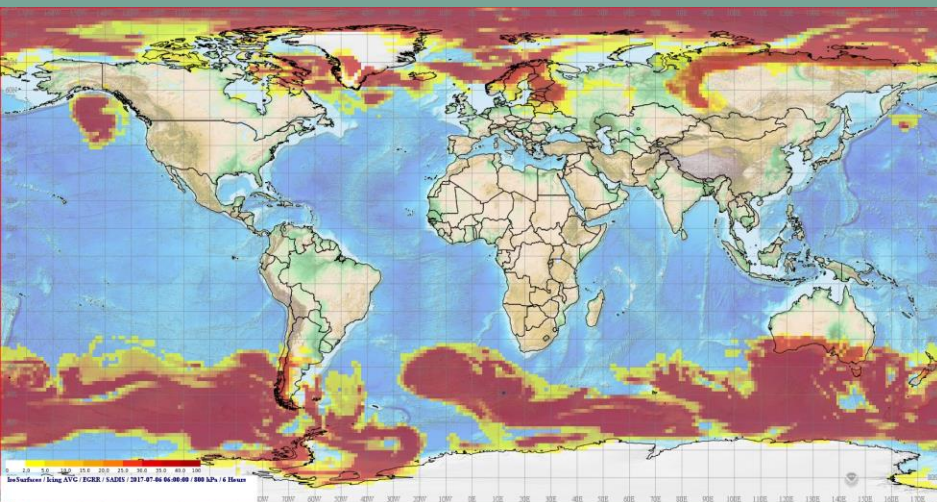
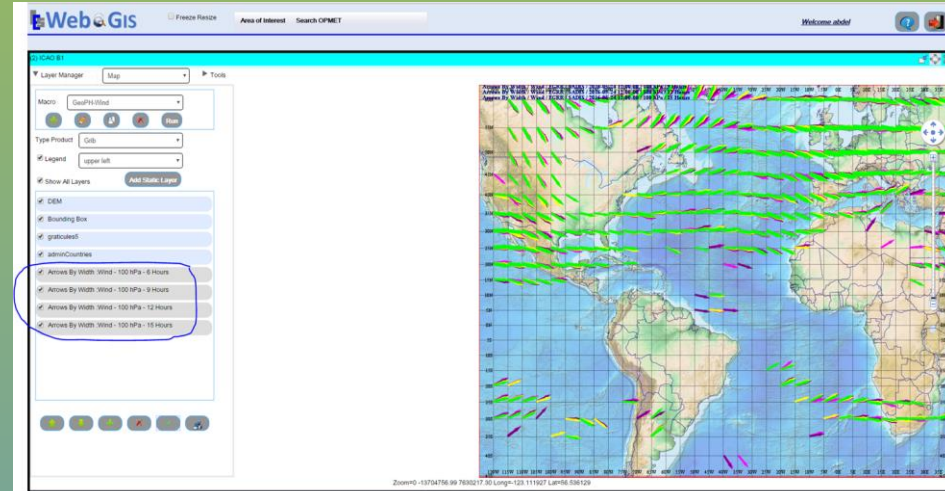
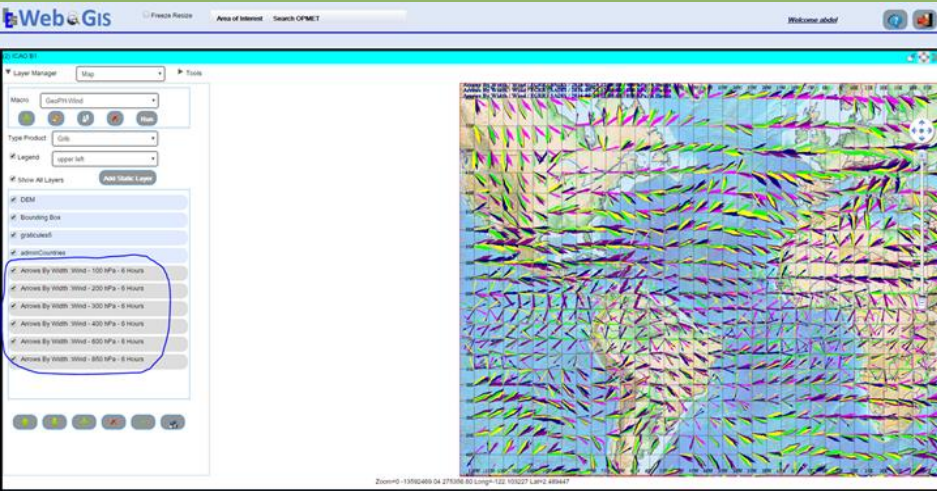
ISO-9001 Certified System

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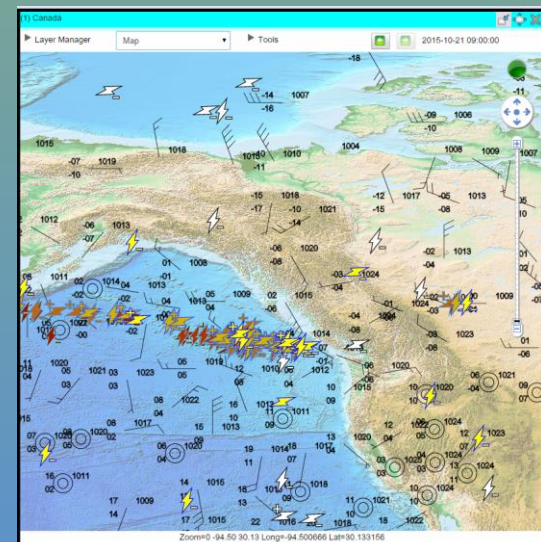
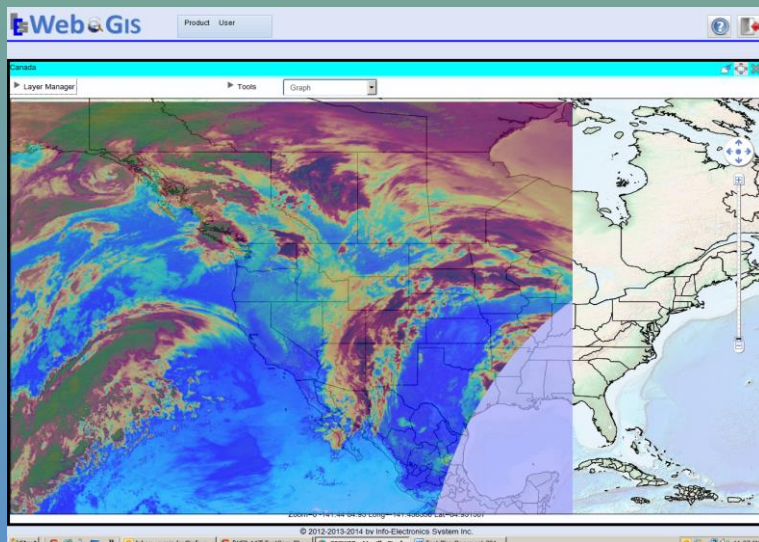
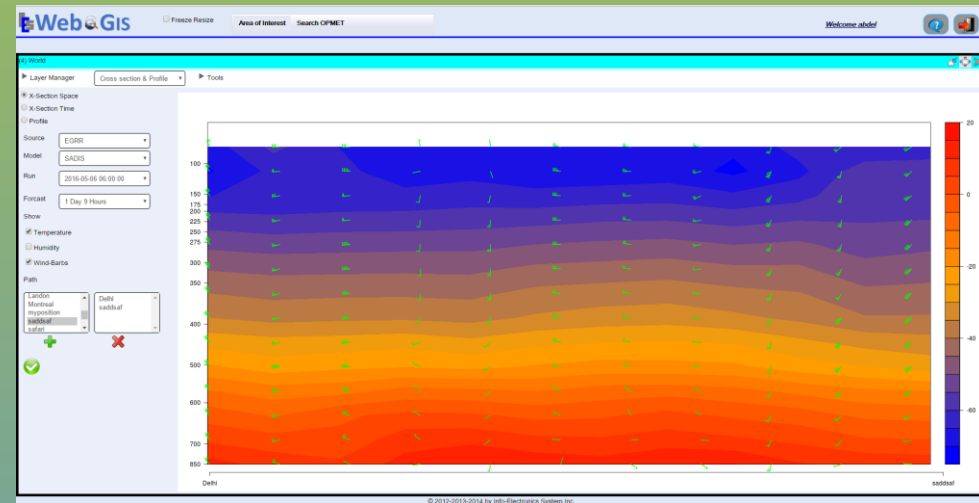
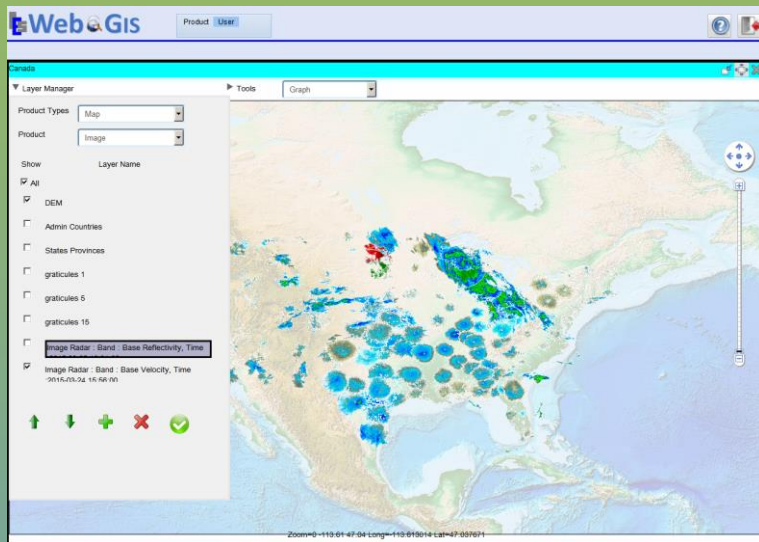
Operational functionalities: Display Generation



Operational functionalities: Display Generation



Operational functionalities: Display Generation



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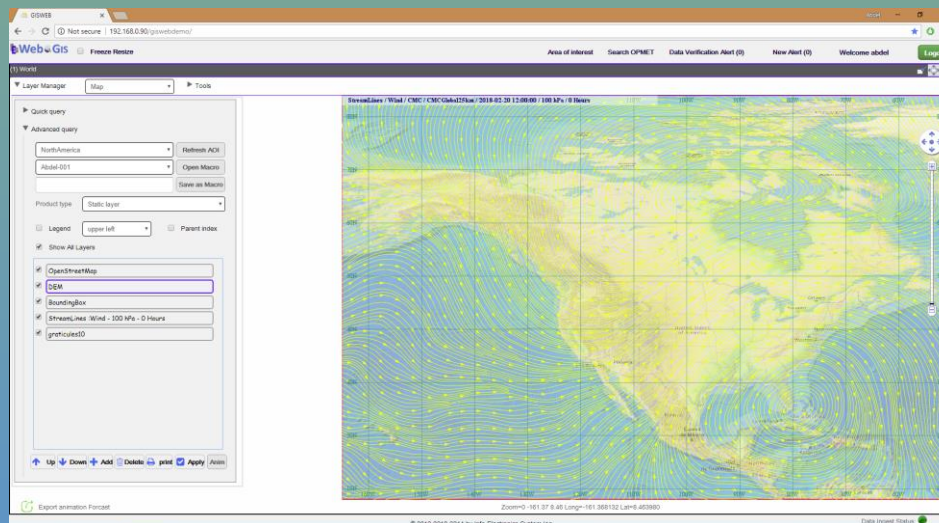
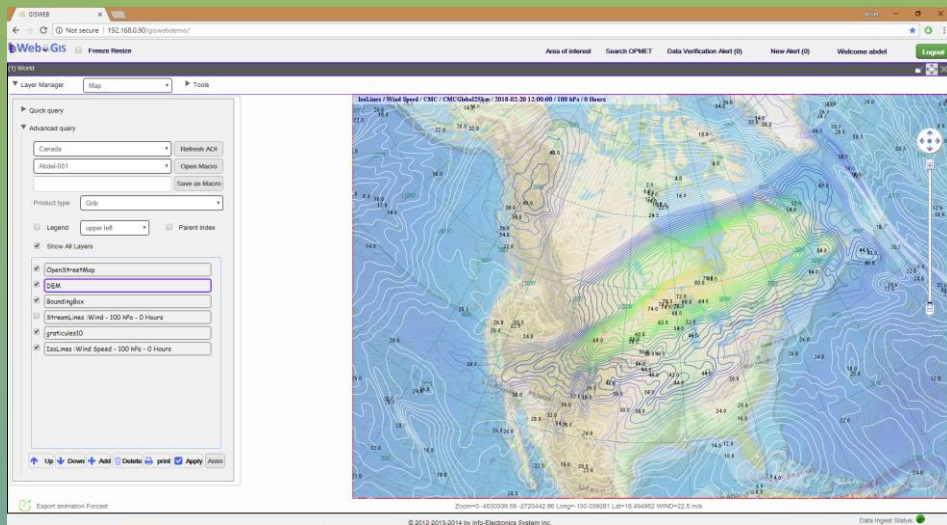
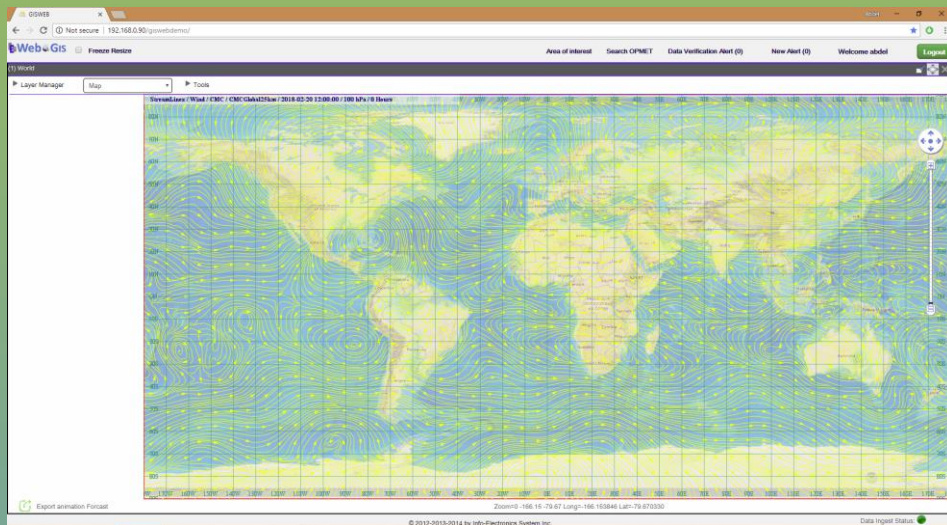
Environnement et
Changement climatique Canada

ISO-9001
Certified System

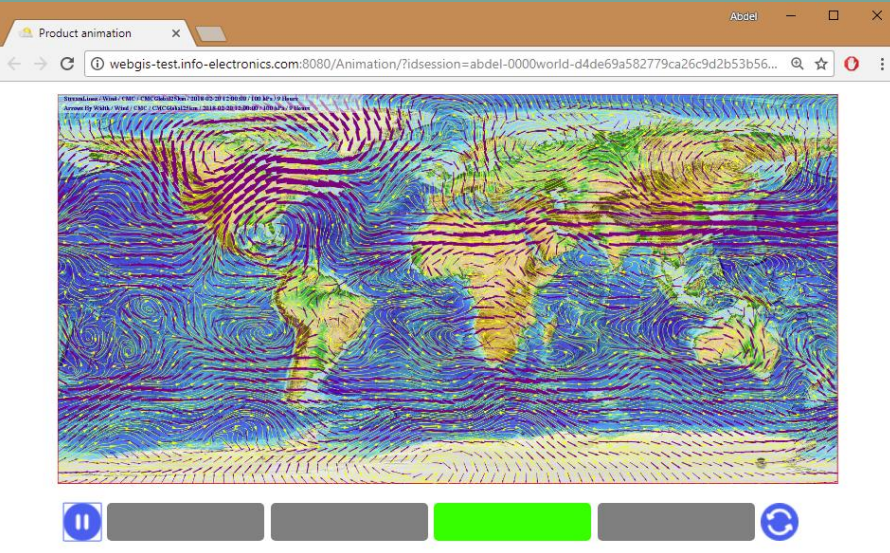
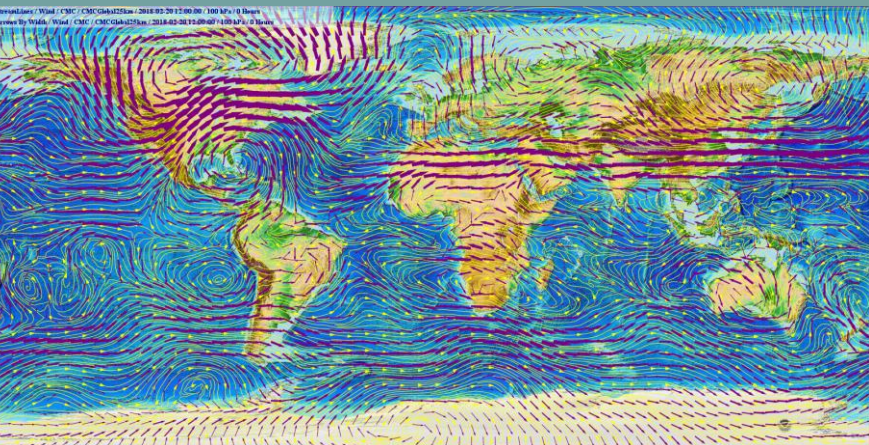
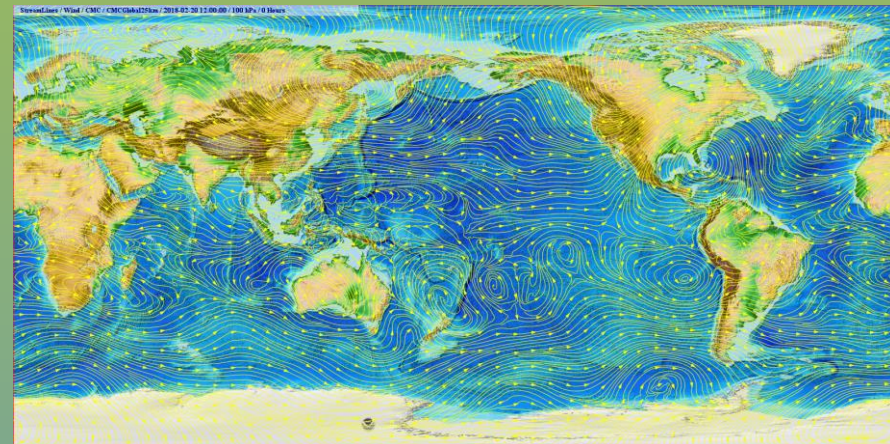
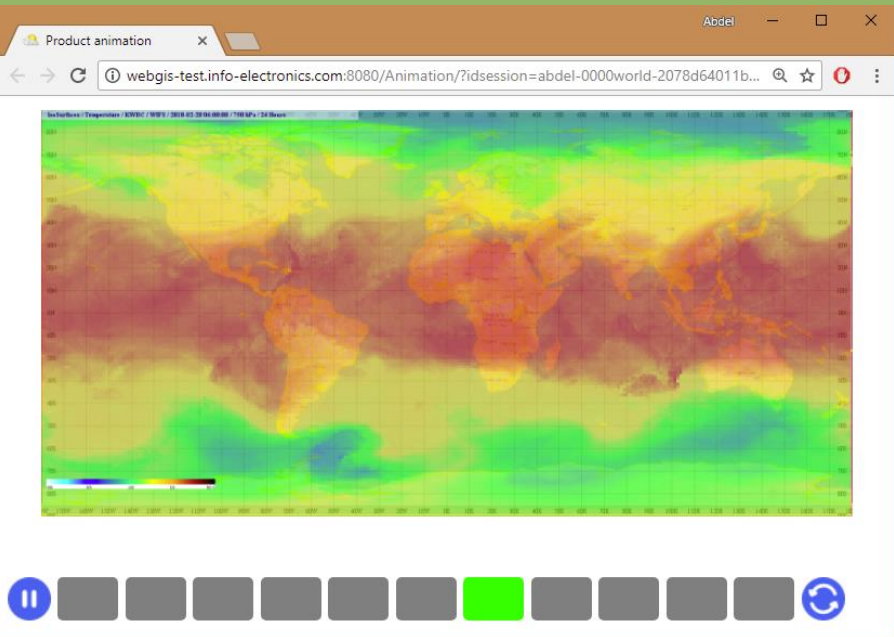


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Operational functionalities: Display Generation



Operational functionalities: Images et Animations



And more...Macros

The screenshot displays the GISWEB application interface. At the top, the browser address bar shows "192.168.0.90/giswebdemo/". The application header includes navigation links like "Area of interest", "Search OPMET", and "Data Verification Alert (0)".

On the left, the "Layer Manager" panel shows a "Map" dropdown and "Tools" options. Below it, a "Quick query" and "Advanced query" section allows users to filter data by location (World, Abdel-001) and product type (Grib). A list of layers is shown, including DEM, BoundingBox, IsoLines: Wind Speed - 400 hPa - 6 Hours, and SIGWX - EGRR - 2018-02-20 06:00:00 - High.

In the center, the "Macro Manager" panel shows a "New Macro" field, a "List Macro" dropdown (Abdel-001), and a "Product type" dropdown (Grib). It includes checkboxes for "All layers" and "Add Static Layer". A list of selected layers is shown: DEM, BoundingBox, IsoLines: KWBC - WIFS - Wind Speed - 400 hPa, and SIGWX - EGRR - High. Buttons for "Save", "Preview", and "Scheduling" are visible.

On the right, a weather map of South America is displayed, showing IsoLines, Wind Speed, KWBC, WIFS, and SIGWX data for February 20, 2018, at 06:00:00. The map includes labels for locations like FUEGUO, REVENTADOR, and SABANCAYA.

At the bottom left, there is a "Export animation Forecast" button. At the bottom right, the "Data Ingest Status" is shown as a green indicator.

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Data Ingest Status: ●



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An more...Task Scheduler

The screenshot displays the GISWEB application interface. At the top, the browser address bar shows '192.168.0.90/giswebdemo/'. The main interface includes a 'Macro Manager' panel on the left with fields for 'New Macro', 'List Macro' (Abdel-001), and 'Product type' (Grib). Below this is a list of layers: DEM, BoundingBox, IsoLines: KWBC - WIFS - Wind Speed - 400 hPa, and SIGWX - EGRR - High. A 'Scheduling' window is open in the foreground, showing a 'list of scheduled tasks' with 'Task-AB-004' and 'Task-AB-003'. The 'Task-AB-003' task details window is also visible, listing three task entries with timestamps: 'abdel_Task-AB-003_Abdel-001_2018-02-20-11:40:04.png', 'abdel_Task-AB-003_Abdel-001_2018-02-20-15:40:00.png', and 'abdel_Task-AB-003_Abdel-001_2018-02-20-16:40:00.png'. The background features a weather map with various data overlays, including IsoLines, Wind Speed, and WIFS. The map title is 'IsoLines / Wind Speed / KWBC / WIFS / 2018-02-20 06:00:00 / 400 hPa / 6 Hours'. The bottom status bar shows coordinates: 'Zoom=0 -11654651.44 3059762.80 Long=-104.695515 Lat=26.642828 WIND=5.9 m/s'.

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And more...Calculator

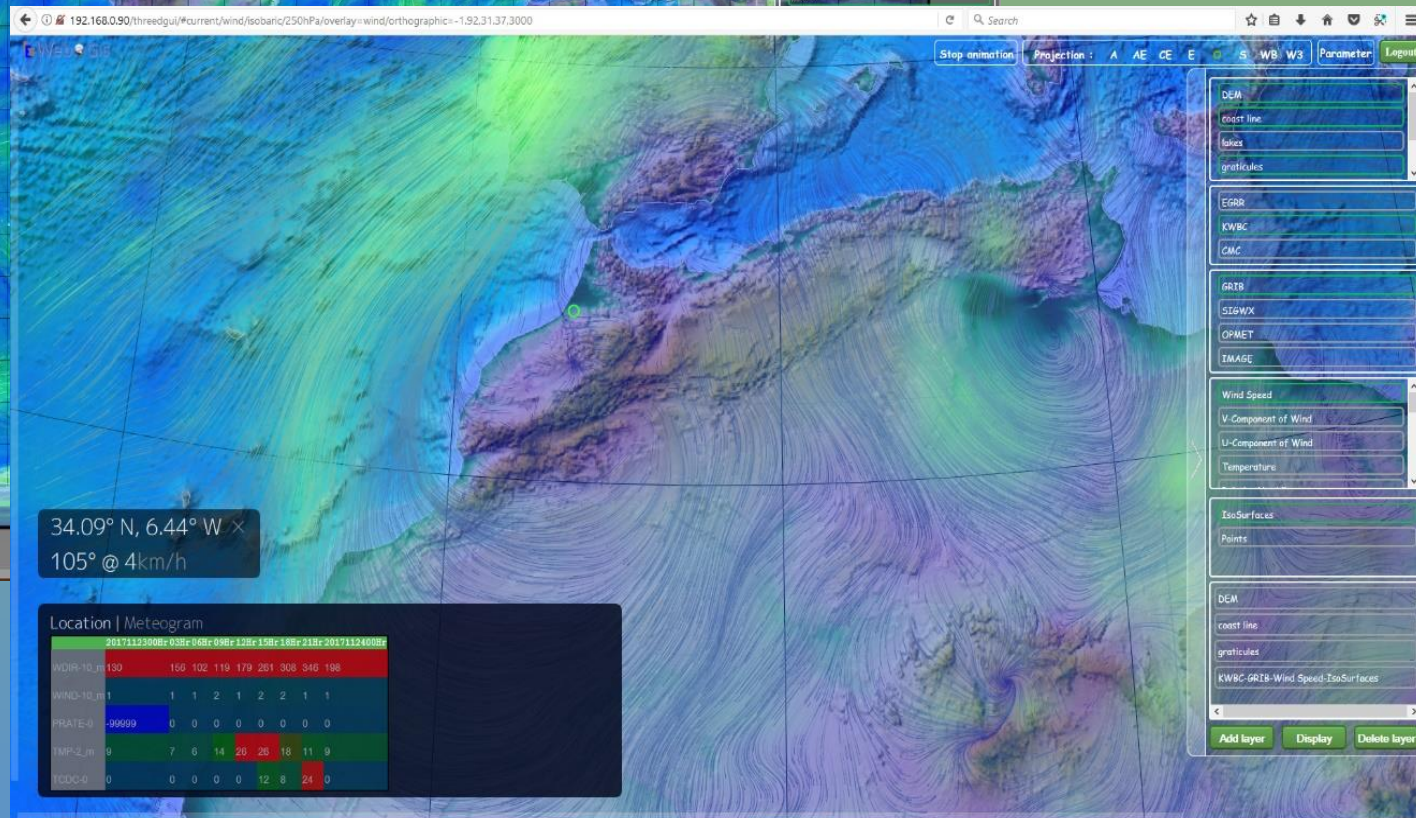
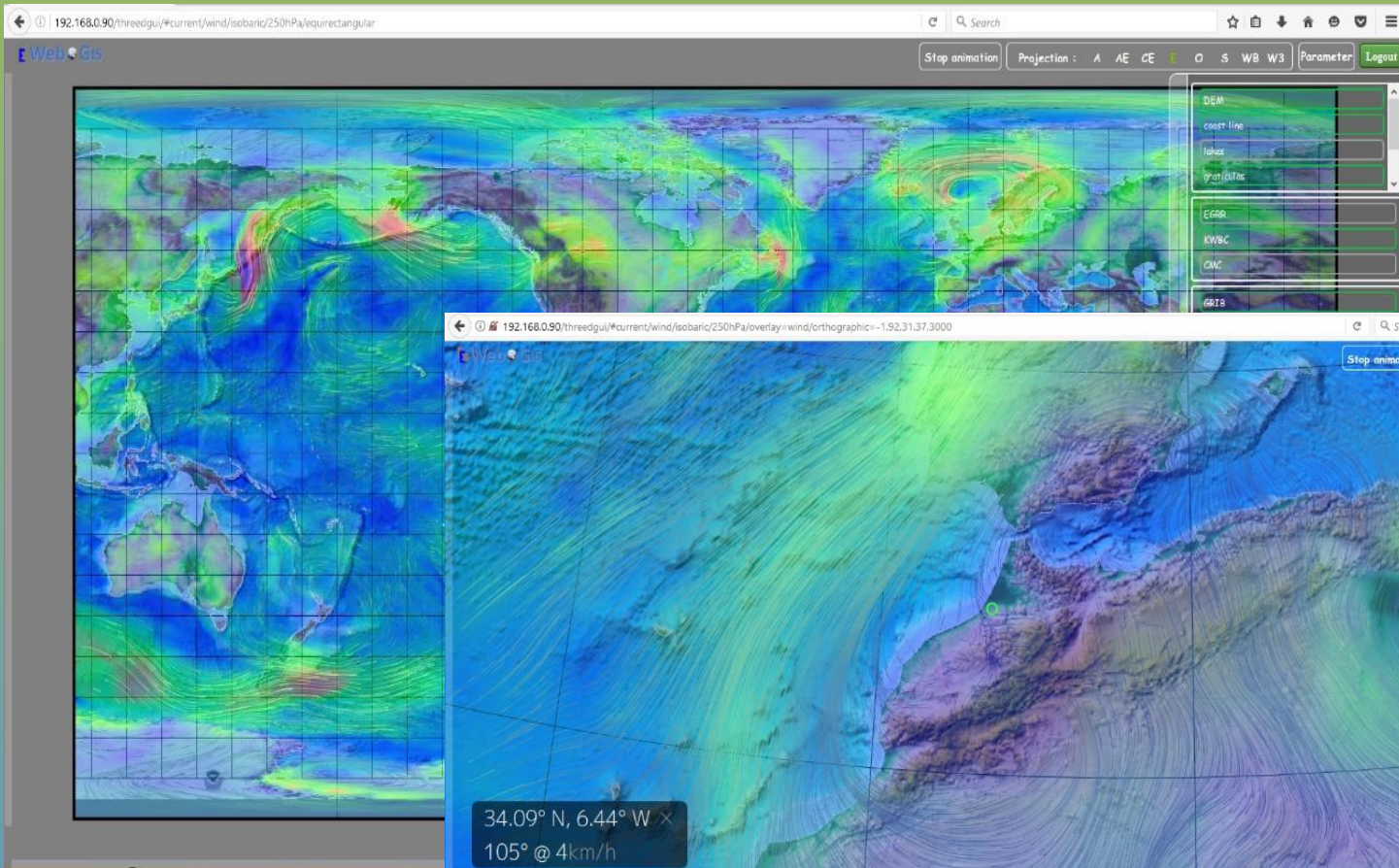
La liste suivante présente quelques fonctions prédéfinies :

- ♦ **GRADX** - X gradient
- ♦ **GRADY** - Y gradient
- ♦ **WSHD** - shearing deformation of the wind
- ♦ **WSTD** - stretching deformation of the wind
- ♦ **WDVR** - wind divergence
- ♦ **WVRT** - wind vorticity
- ♦ **VORT** - absolute vorticity of the wind
- ♦ **ADVECT** - advection of a field
- ♦ **SMTH** - smoothing by moving average
- ♦ **SMTH5** - smoothing by moving average repeated 5 times
- ♦ **SMTH9** - smoothing by moving average repeated 9 times
- ♦ **SMOO** - light smoothing by moving average
- ♦ **TMEAN** - temporal mean
- ♦ **TCORR** - temporal correlation (not standard terminology)
- ♦ **DEWPT** - calculates a set of Dew Point Temperature by a grid of temperature and relative humidity values
- ♦ **Q** - calculates a set of specific humidity (moist) values by a grid of temperature and relative humidity values and pressure value (scalar)
- ♦ **S2RHUM** - calculates a set of relative humidity values by a grid of temperature and specific humidity values and pressure value (scalar)

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And more...3D-Globe



Initiation Material...

Met-WebGIS Home
Created by Abdel Brahm, last modified just a moment ago

- Presentation (EN)
- Presentation (FR)

• Quick Start - Démarrage rapide

Login: <https://www.metwebgis.co>

Initiation Material for Met-WebGIS Application Matériel d'initiation pour l'application Met-WebGIS

Your best Web-GIS based information system for your application...

You are clicks away from your monitoring and decision support activities

Examples of Web-GIS Information System Applications:

- Collaborative Weather Forecasting System
- North West Subsurface Data Application
- ARMSAT 1 for Current Hydrological Information Management System

Met-WebGIS Training Material
Created by Abdel Brahm, last modified on May 17, 2018

This page presents material to help in using the application functionalities.

Function	Description	Screen Animation
Login/ Exit	Show how to Login and Exit the application	• 1001-Met-WebGIS-Login.wmv
Area of Interest	Show how you can create, select, change and make as default an Area of Interest	• 2001-Met-WebGIS-GUI-Overview.wmv • 2002-Met-WebGIS-Aoi.wmv • 2003-Met-WebGIS-Aoi-Creation.wmv
Layers Menu	Show how to use the Layers Menu	• 2004-Met-WebGIS-Layer-Manager.wmv
Static Layers	Show how to add and setup preferences for available static layers	• 2005-Met-WebGIS-Static-Layers.wmv
Geomet Layers	Show how to add and setup preferences for Geomet WMS layers	• 3001-Met-WebGIS-Geomet-WMS-001.wmv • 3002-Met-WebGIS-Geomet-WMS-002.wmv • 3003-Met-WebGIS-Geomet-WMS-003.wmv • 3004-Met-WebGIS-Geomet-WMS-004.wmv • 3005-Met-WebGIS-Geomet-WMS-005.wmv • 3006-Met-WebGIS-Geomet-WMS-006.wmv
Additional WMS Layers	Show how to add and setup preferences for other WMS layers	• 4001-Met-WebGIS-Eumetsat-001.wmv • 4002-Met-WebGIS-Nowcast-001.wmv
GRIB Layers	Show how to add and setup preferences for rendering GRIB data layers	• 5001-Met-WebGIS-Grib-001.wmv • 5002-Met-WebGIS-Grib-002.wmv • 5003-Met-WebGIS-Grib-003.wmv • 5004-Met-WebGIS-Grib-004.wmv • 5005-Met-WebGIS-Grib-005.wmv
Opnet Layers	Show how to query and display Opnet data	
Profile/Cross-Section	Show how to select and render profiles from sounding as well as profile and cross-section from GRIB forecast	
Animation	Show how to generate products animations.	• 6001-Met-WebGIS-Anim-Geomet-001.wmv • 6002-Met-WebGIS-Anim-Geomet-002.wmv • 6003-Met-WebGIS-Anim-Geomet-003.wmv • 6005-Met-WebGIS-Anim-Grib-005.wmv • 6006-Met-WebGIS-Anim-Grib-006.wmv
Macro	Show how to create and save Macro as template for quick generation of products with predefined setting	

WebGIS

Area of Interest: New Definition Area (0) | New Area (0) | WebUser: abdel

Layers Manager: [Map] [Tools] [Layers Manager] [User Resources]

Advanced Query: [Refresh WMS] [Open Macro] [Open as Macro]

Product type: [Default]

Legend: [Layer Off] [Parent Info] [Show All Layers] [Show Panels]

Layers:

- WMS: GDSFSTA - Sea level pressure
- WMS: GDSFSTA - Sea level pressure
- Geomet: []
- GRIB: []
- Opnet: []

3004-Met-WebGIS-Geomet-WMS-004

00018 | 00405

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