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….

CERTIFICATE
OF REGISTRATION

This is to certify that

Info-Electronics Systems Inc.
1755, St-Régis, Suite 100, Dollard-des-Ormeaux, Québec H9B 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
File No.: 013800
Issue Date: November 20, 2015
Original Certification Date: November 24, 2006
Current Certification Date: November 21, 2015
Certificate Expiry Date: September 14, 2018

Accreditation number No. 62/12
Date of accreditation 2012-10-09

ISO 9001

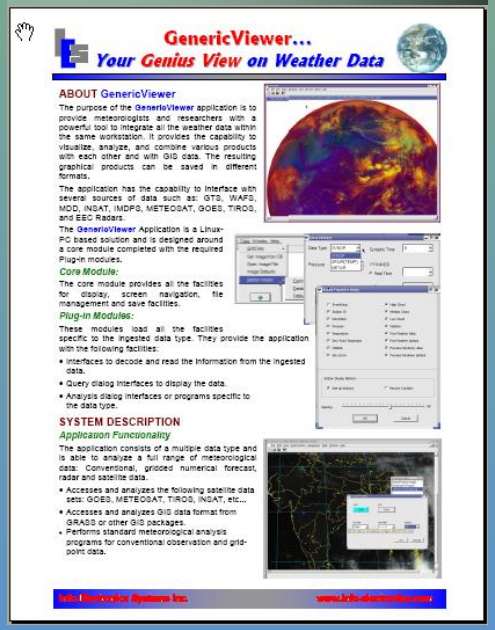
SAI GLOBAL

- 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 intertest to its clients.
- IES has an ISO 9001:2008 certified Quality Management System.

Introduction: Products….

Weather Briefing Workstation for the aviation industry

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



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

Introduction: Innovation….

www.tpsgc-pwgsc.gc.ca/app-acq/picc-bcip/prequalifiee-prequalified/met-webgis-eng.html

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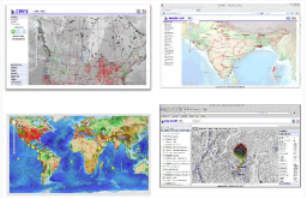
Pre-qualified innovation: Met-WebGIS

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

…the system from anywhere in the world. This accessibility also means that it is easy to maintain up-to-date information in the system.

From aviation to agriculture

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 …

For example, Met-WebGIS could be set up as a Decision Support System for applications disaster …

More information

For more information about this innovation and …please contact us at

Not secure | www.tpsgc-pwgsc.gc.ca/app-acq/picc-bcip/jumelees-matched-eng.html

Français

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Matched innovations

These innovations have been matched with a testing partner, but a contract has not been awarded. You may also be able to test the innovation. It's common for innovations to be tested by multiple testing partners.

If you see an innovation that you are interested in testing, send us an email at innovation@tpsgc-pwgsc.gc.ca.

List of matched innovations

Standard | Military

Matched innovations—Standard component

Showing 1 to 1 of 1 entries | Show 10 entries

Filter items: Met-

Organization	Innovation	Description	Province, City	Priority area	Call	Status
Info-Electronics HP Systems Inc.	Met-WebGIS	Web-based application for user-defined processing, rendering and display in GIS context of environmental data.	Quebec, Dollard des Ormeaux	Enabling technologies	007	Matched

1

For all of our innovations that are available for testing, please visit our Pre-qualified innovations available for testing page.

For all of our innovations that are available for additional sales, please see our Innovations available for additional sales page.

For all of our innovations that are not available for testing or additional sales, please see our Innovations no longer available for testing page.

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Date modified: 2018-02-21

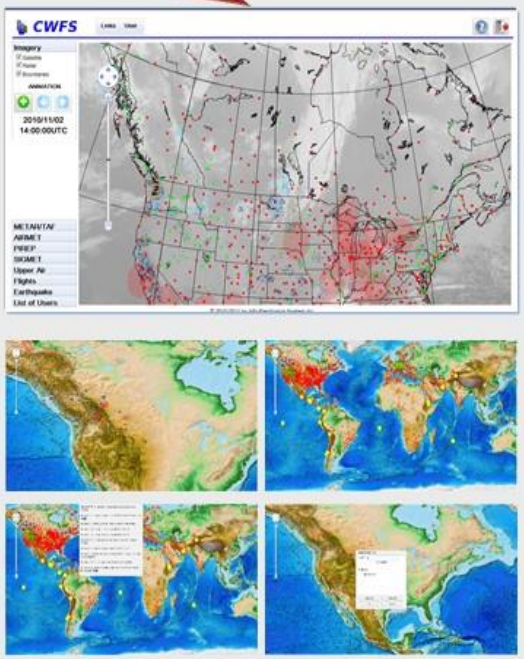
Met-WebGIS has been prequalified by Build in Canada Innovation Program (BCIP)

Met-WebGIS have been matched with Meteorological Services of Canada as testing partner

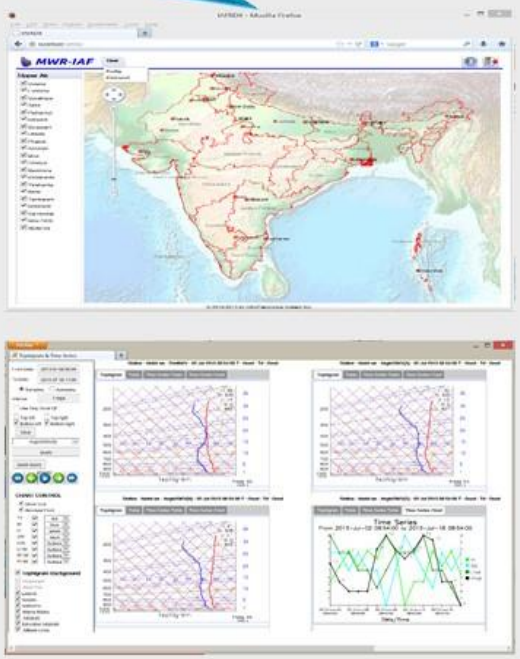
Introduction: Use cases…

Examples of Web-GIS Information System Applications

Collaborative Weather Forecasting System



Micro-Wave Radiometer Network Application



RADARSAT-2 for Canvec Hydrological Information Management System

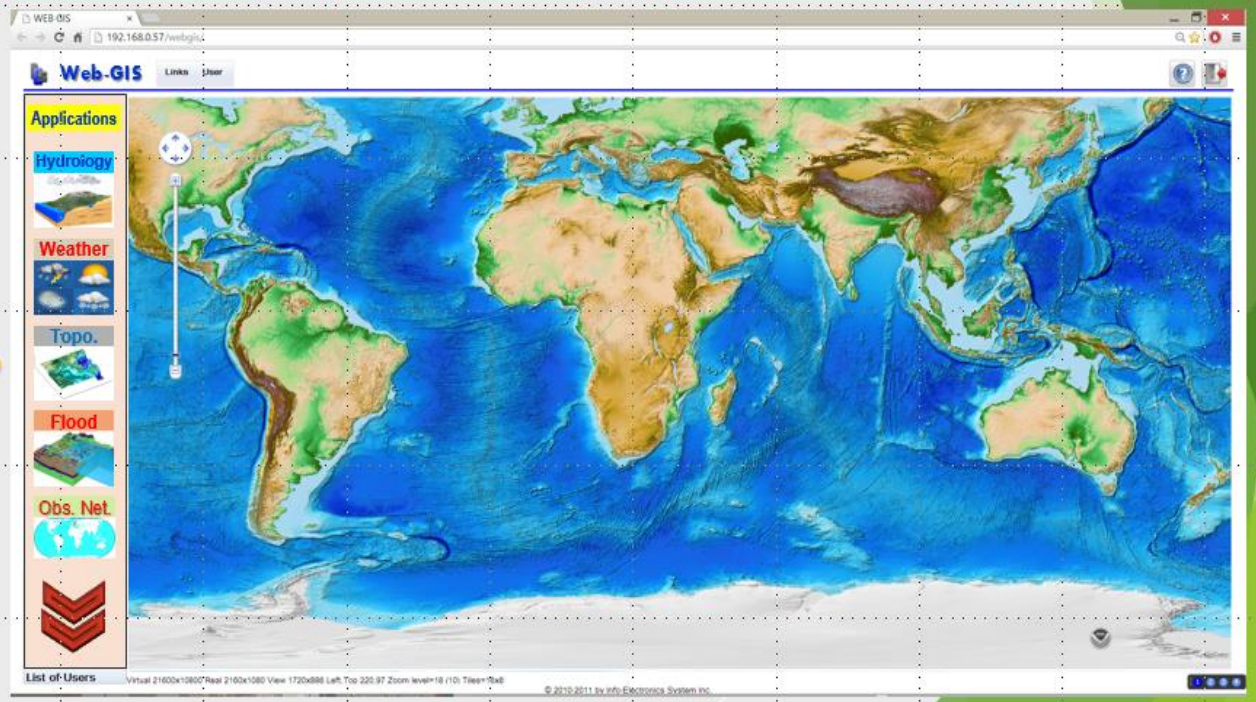
Introduction: Base for Decision Support System

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

You are clicks away from your monitoring and decision support activities .....

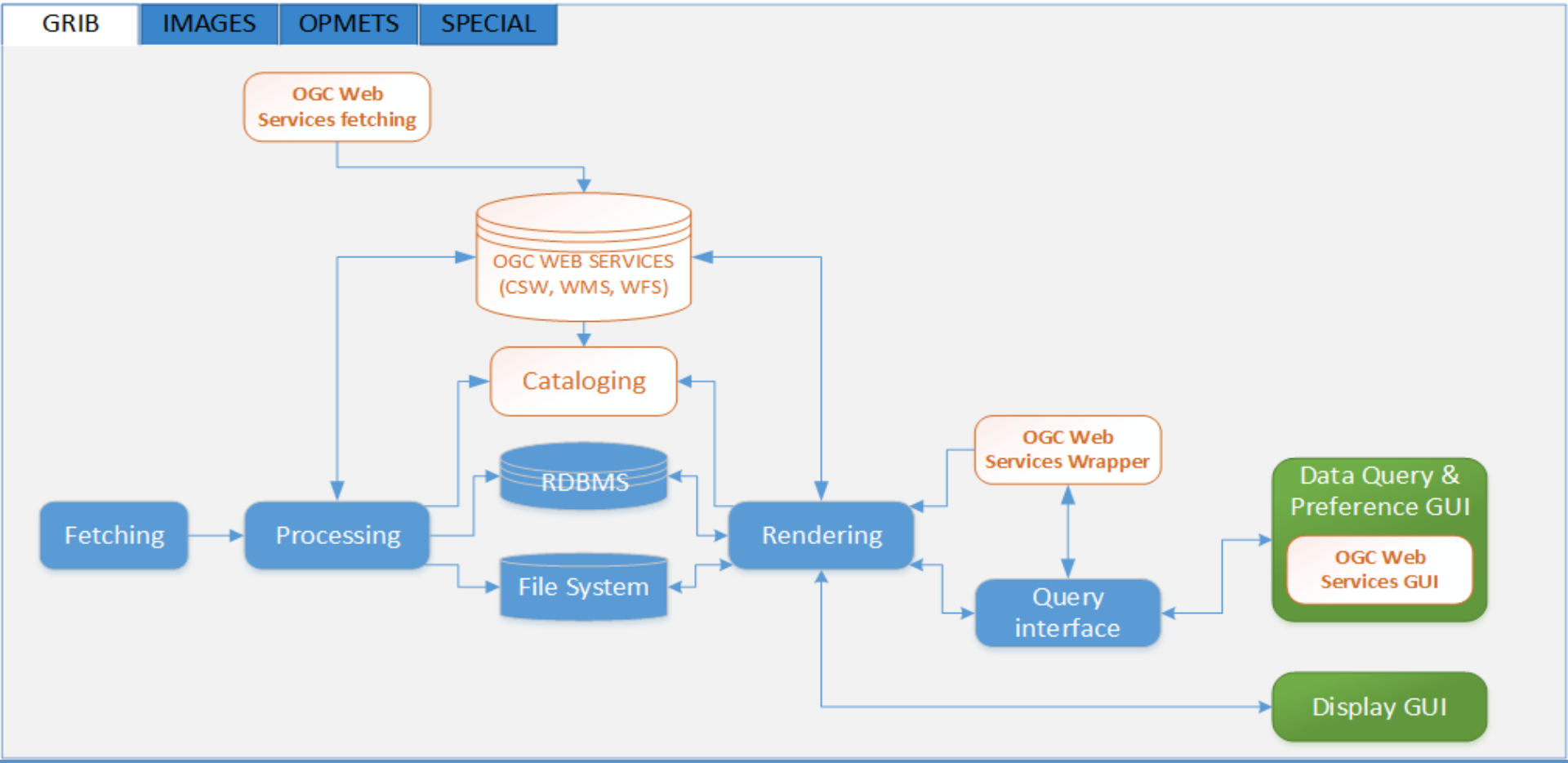
Data display + Thematic + Analysis = Decision

- In-situ observation network
- Earth Observation remote sensing
- Numerical Models outputs
- GIS Database for thematic information

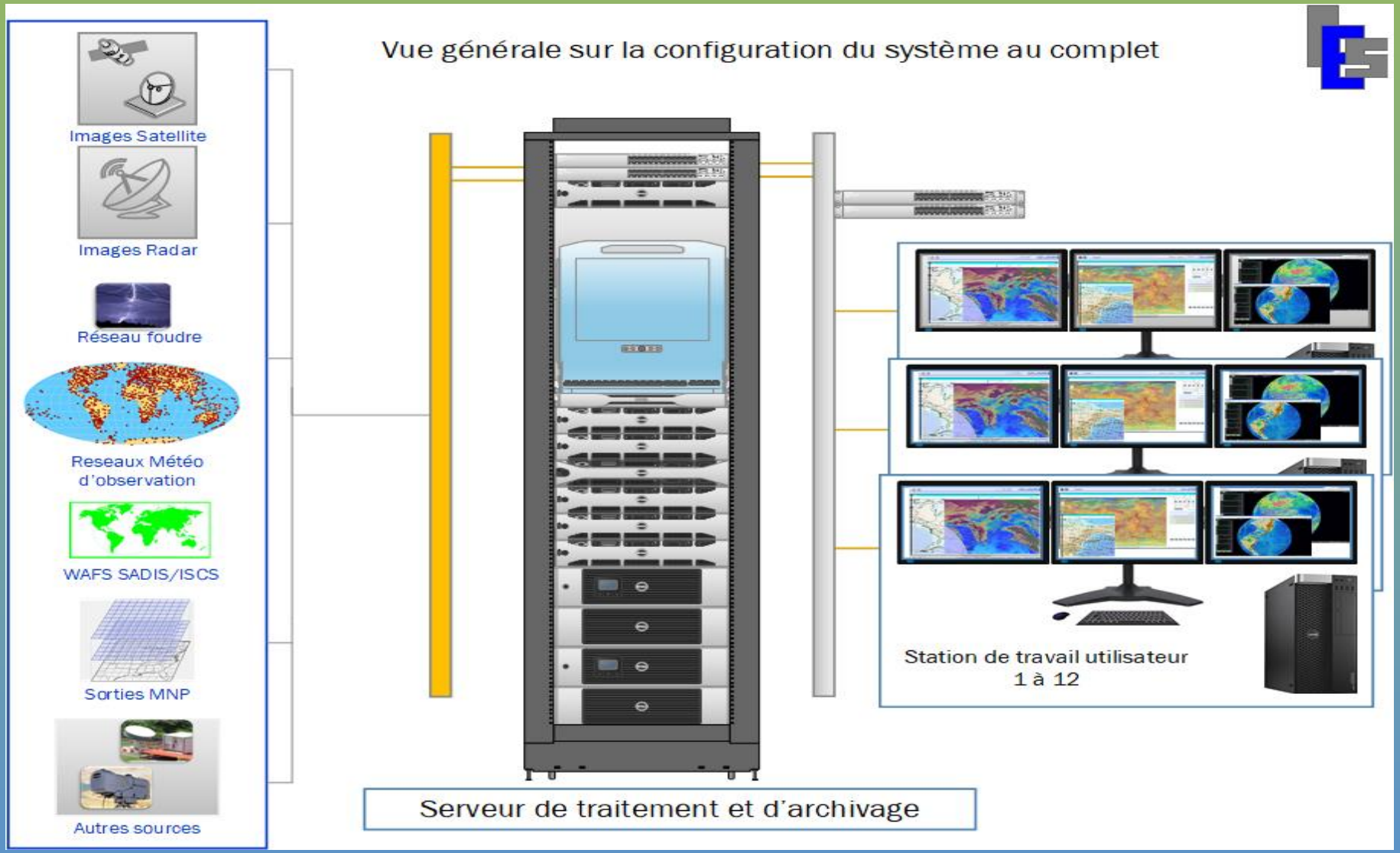


Overview: Design…

WebGIS
Overall view – Vue globale



Overview: Met-WebGIS Example of System configuration



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.

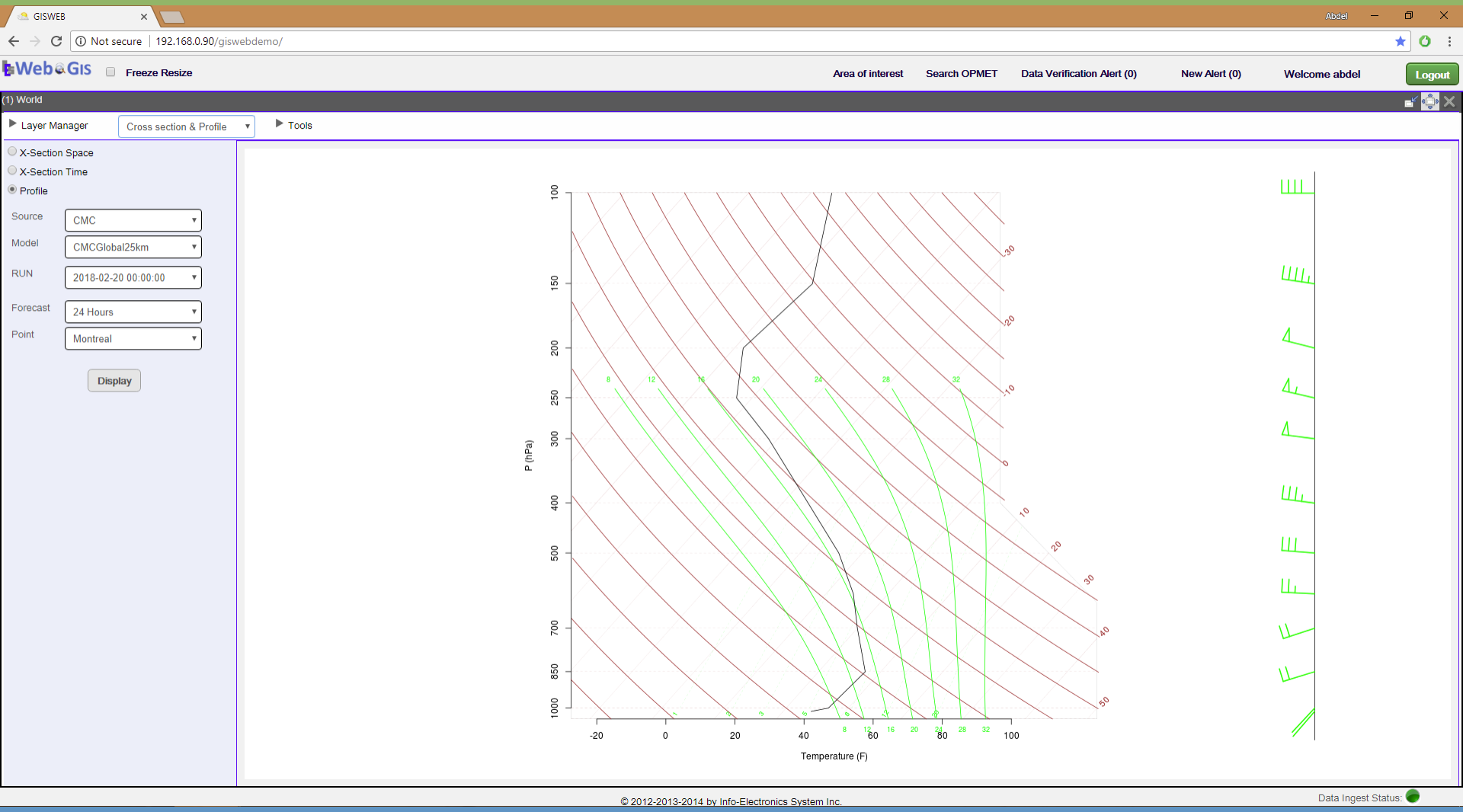
Overview: Fonctionnalities

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...

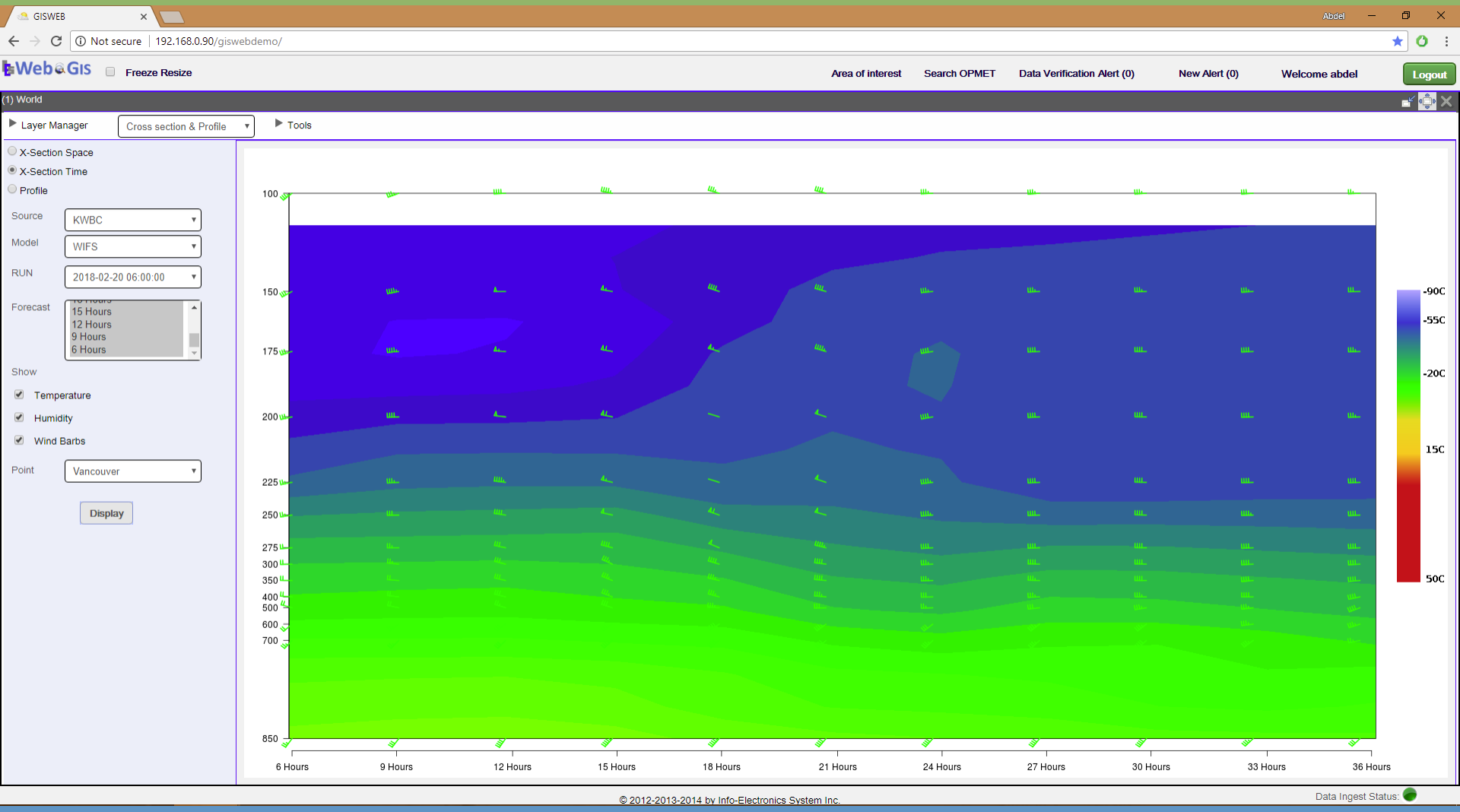
Graphical User Interface: Met-WebGIS

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

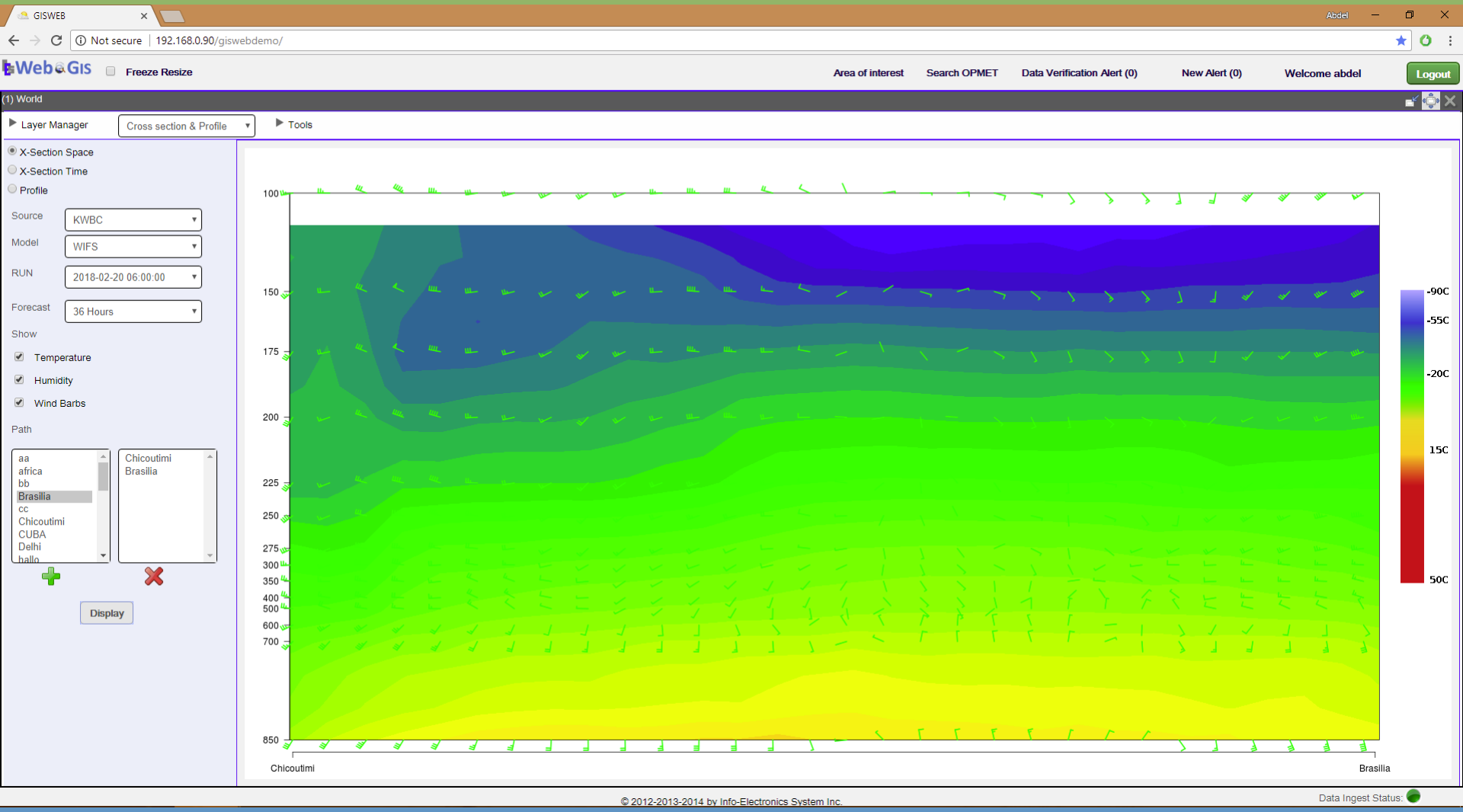
Graphical User Interface: Profiles



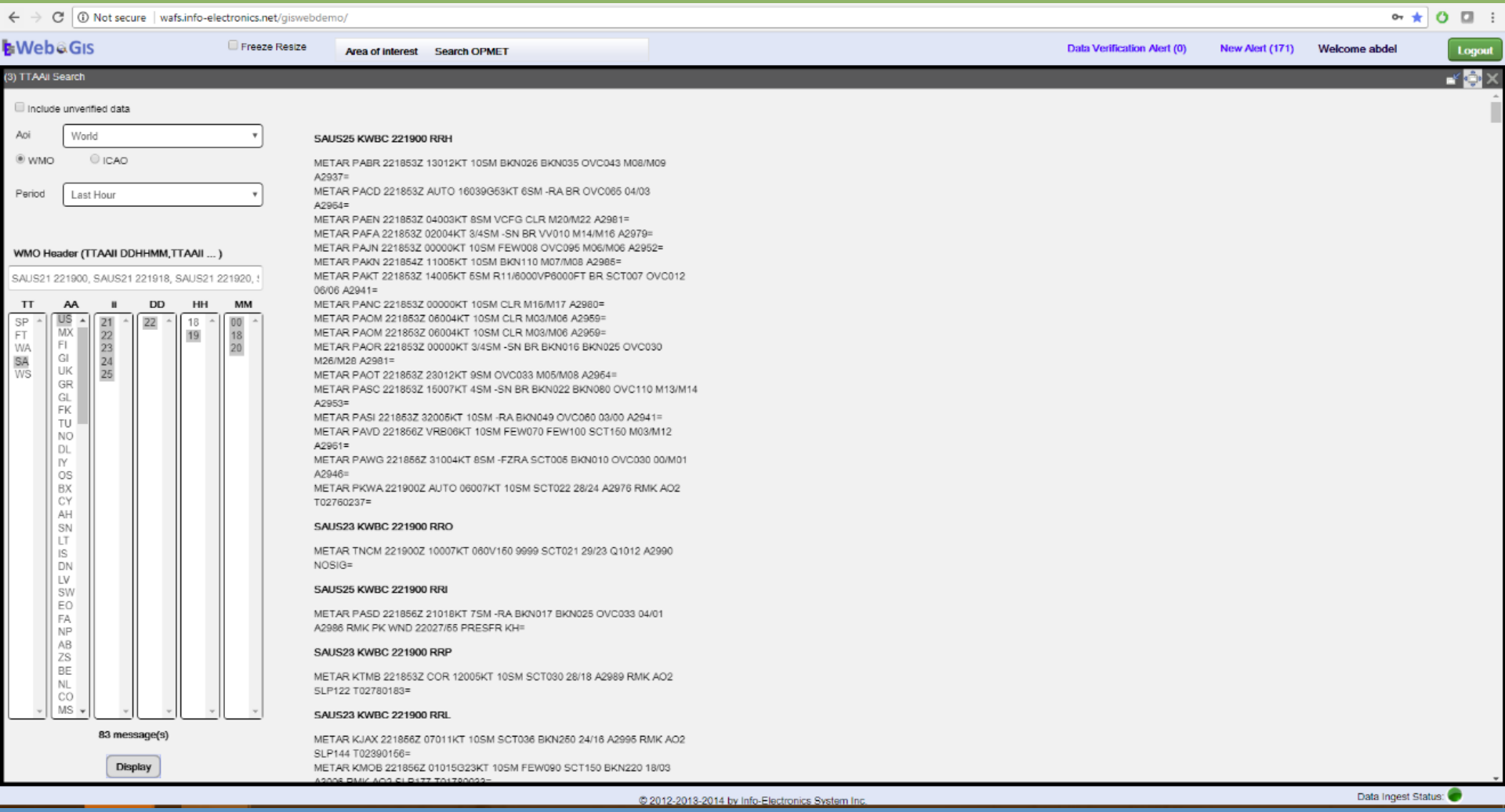
Graphical User Interface: Time Cross-Section



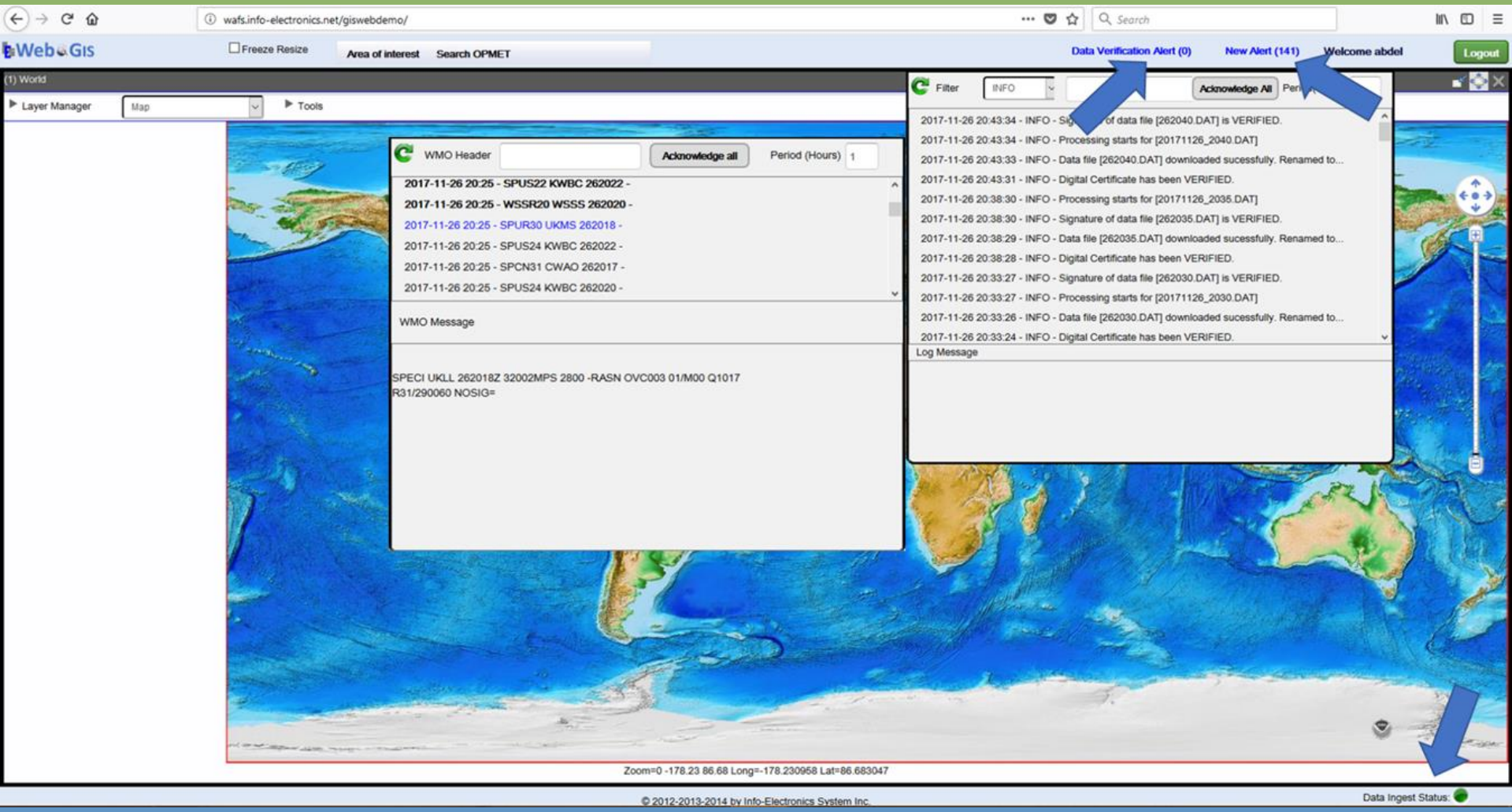
Graphical User Interface: Space Cross-Section



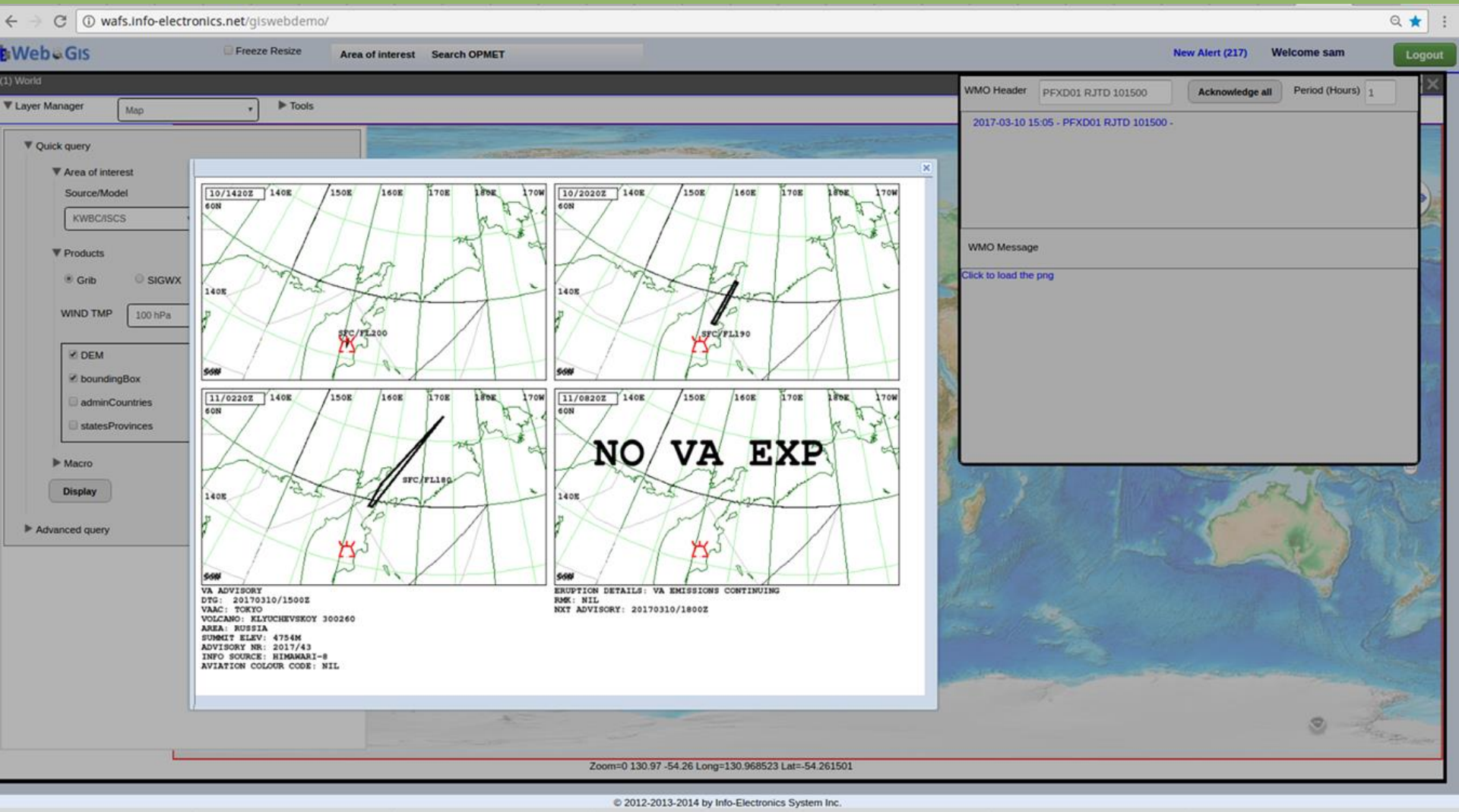
Graphical User Interface: OPMET



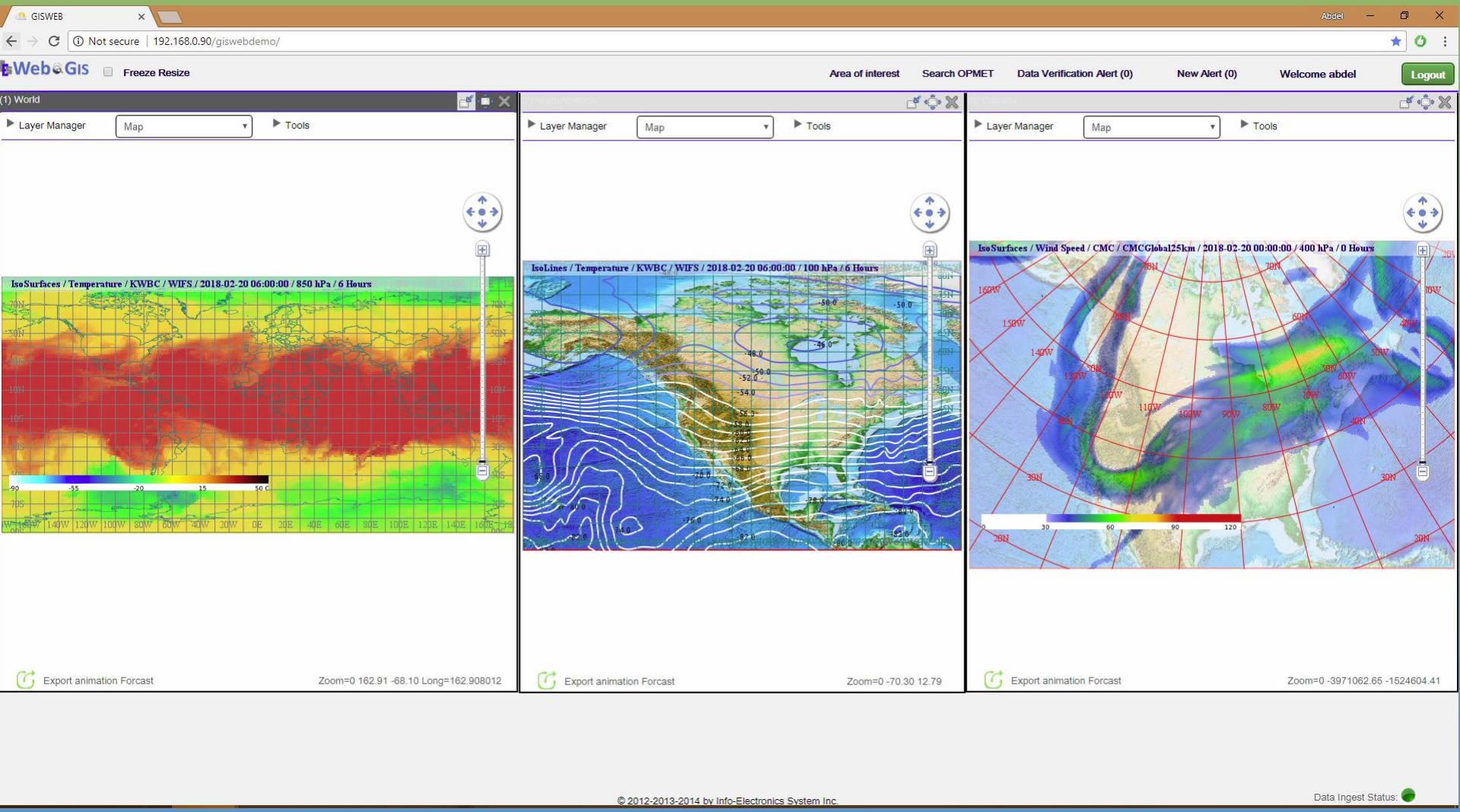
Operational functionalities: Alarm Management



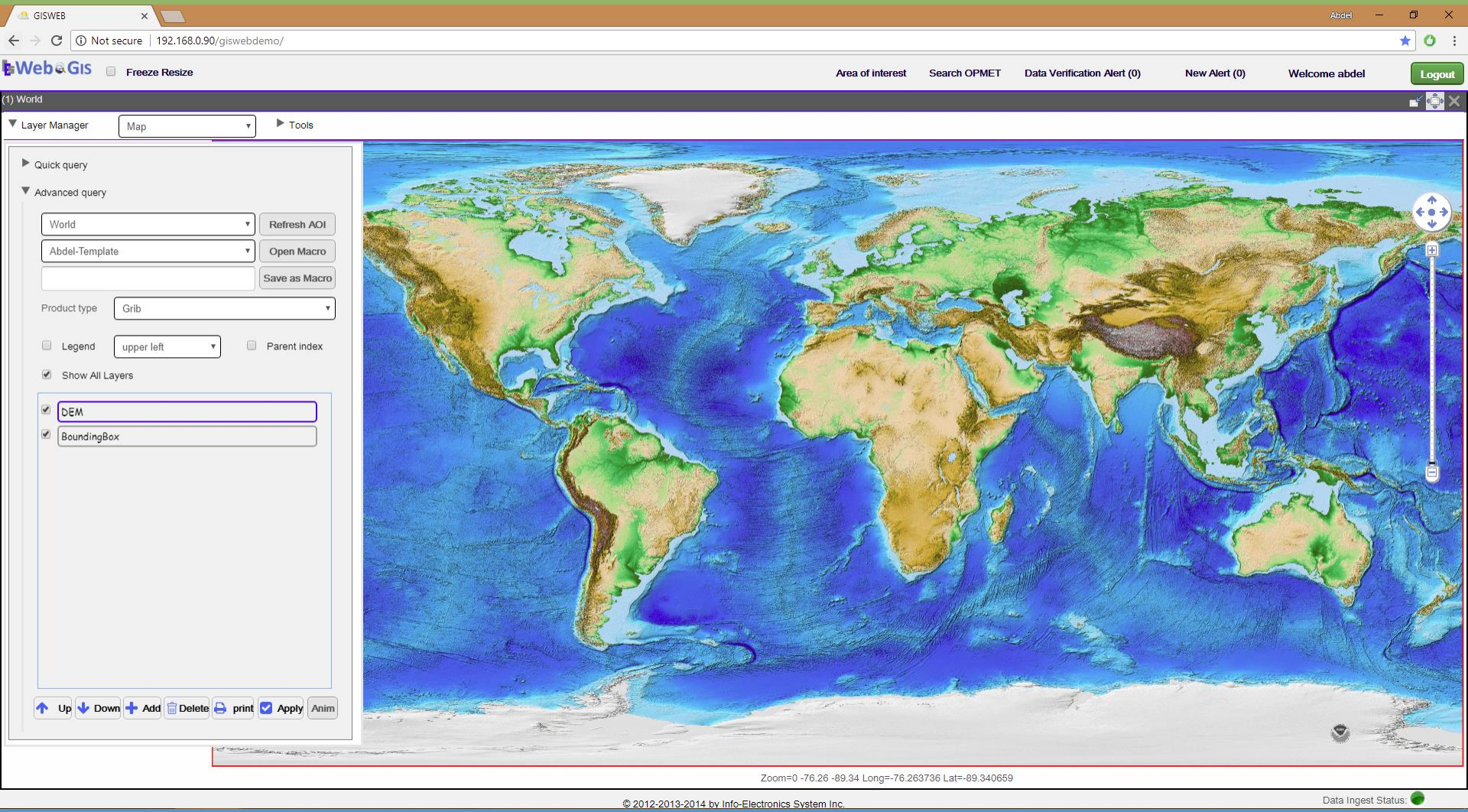
Operational functionalities: Alarm Management



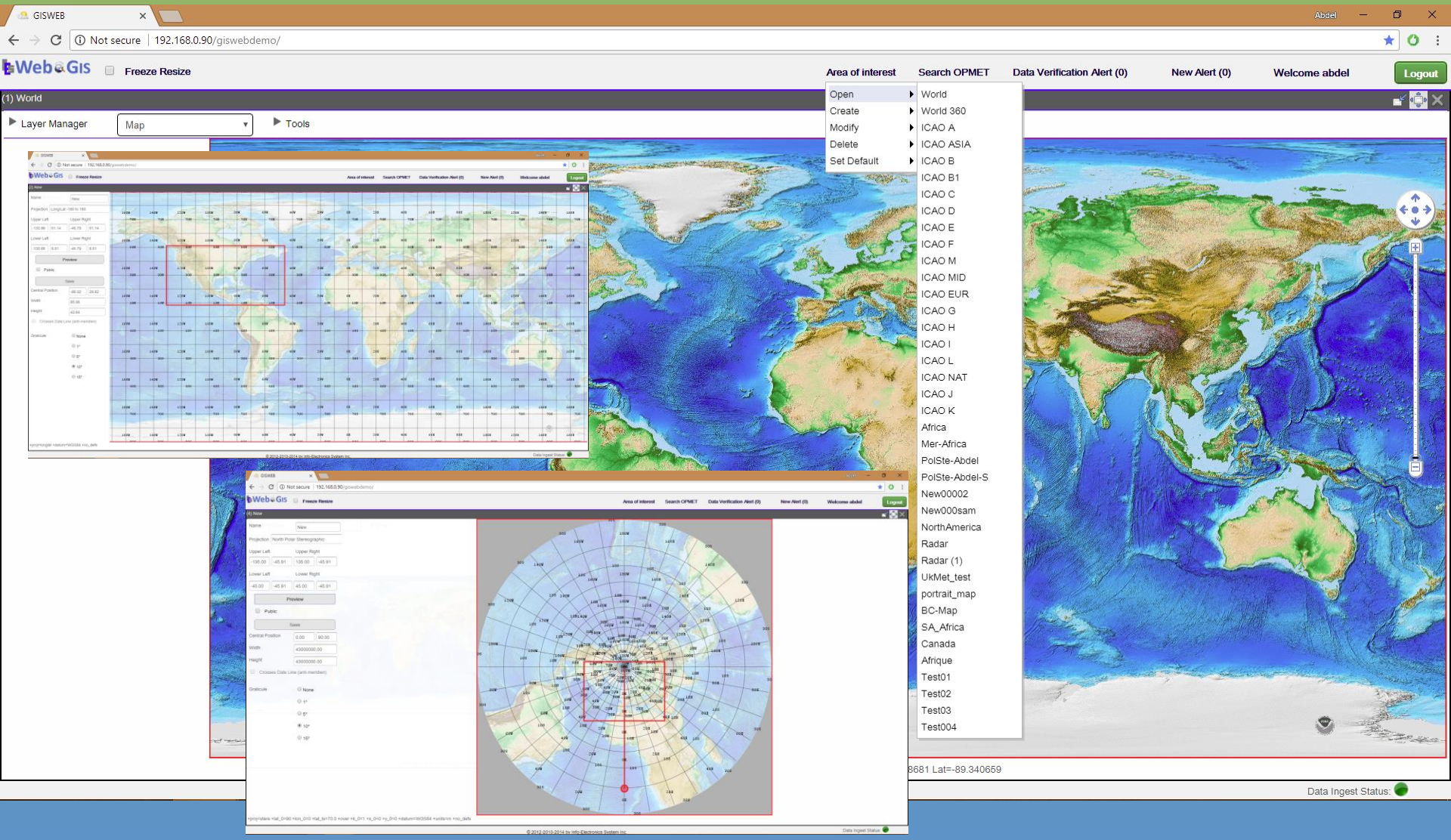
Operational functionalities: Multi-Panels



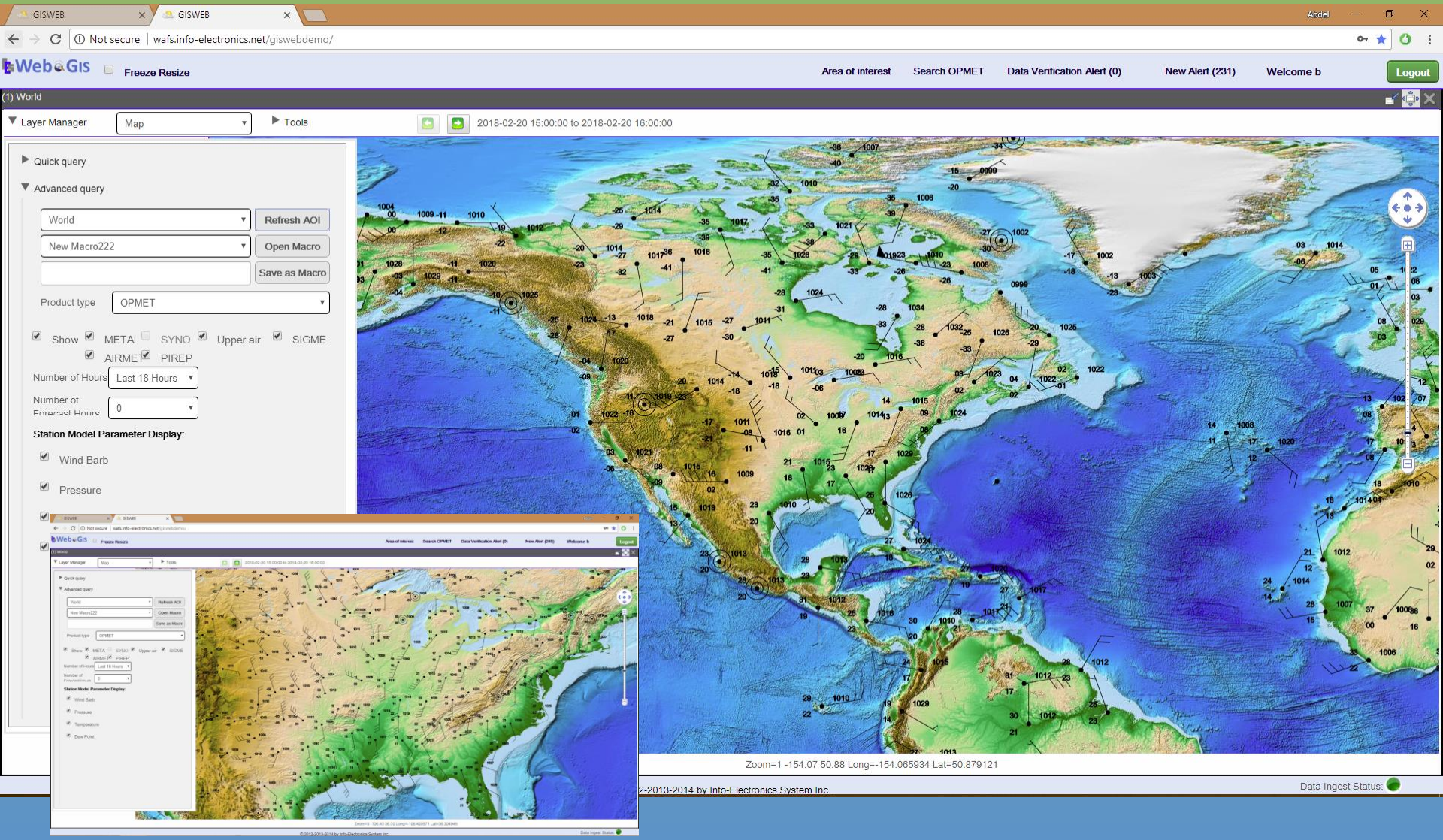
Graphical User Interface: Maps



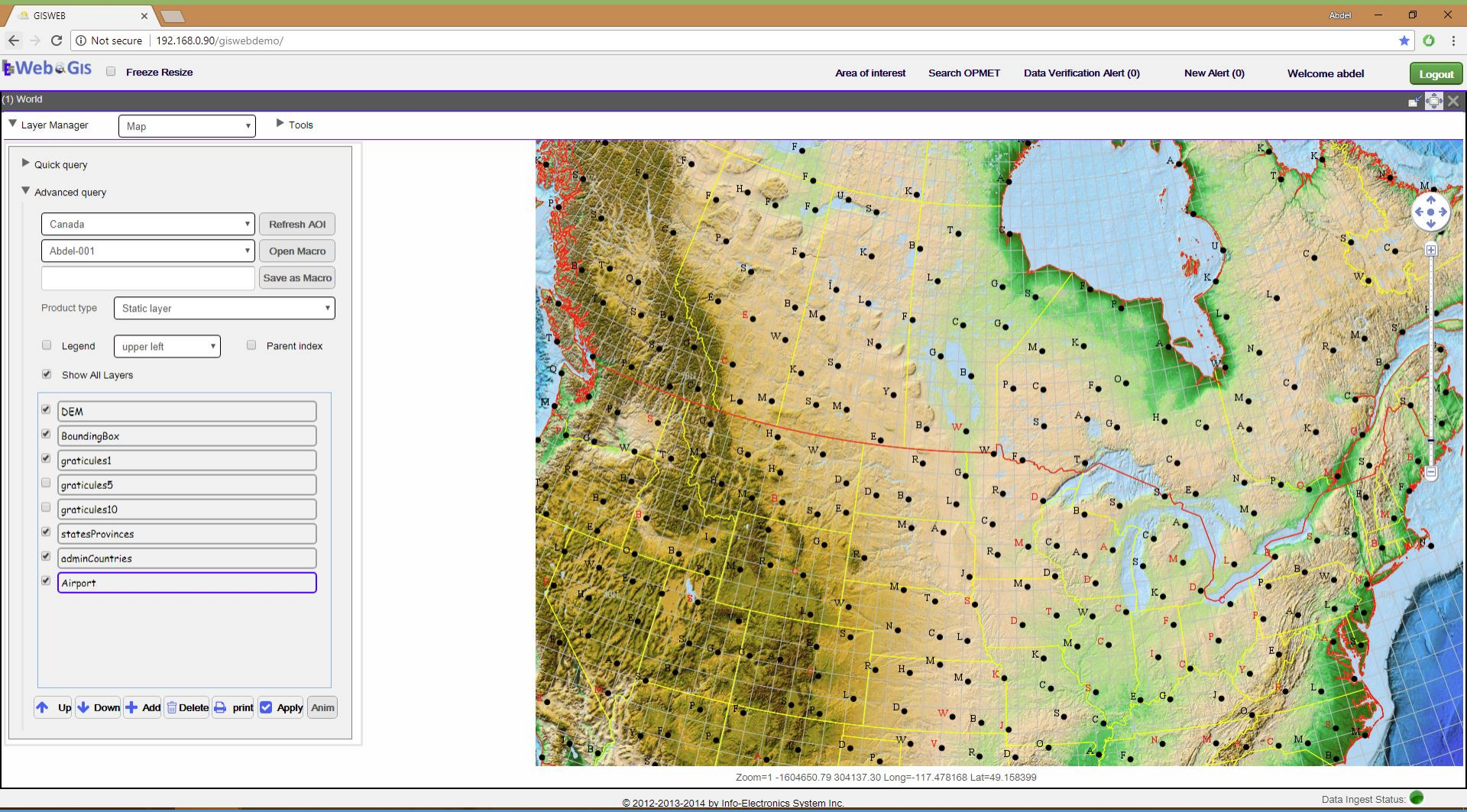
Graphical User Interface: Area of Interest



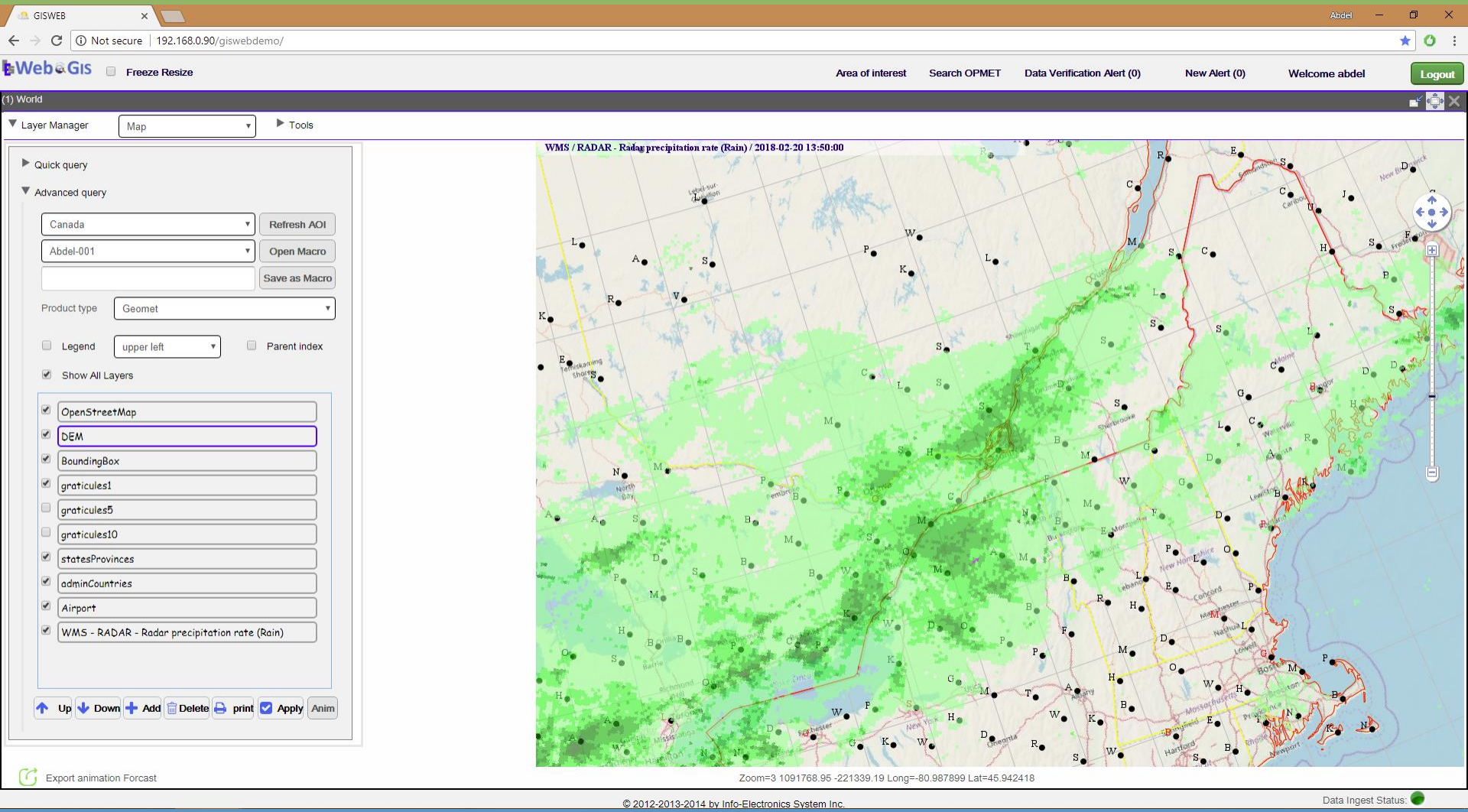
Graphical User Interface: Plotting



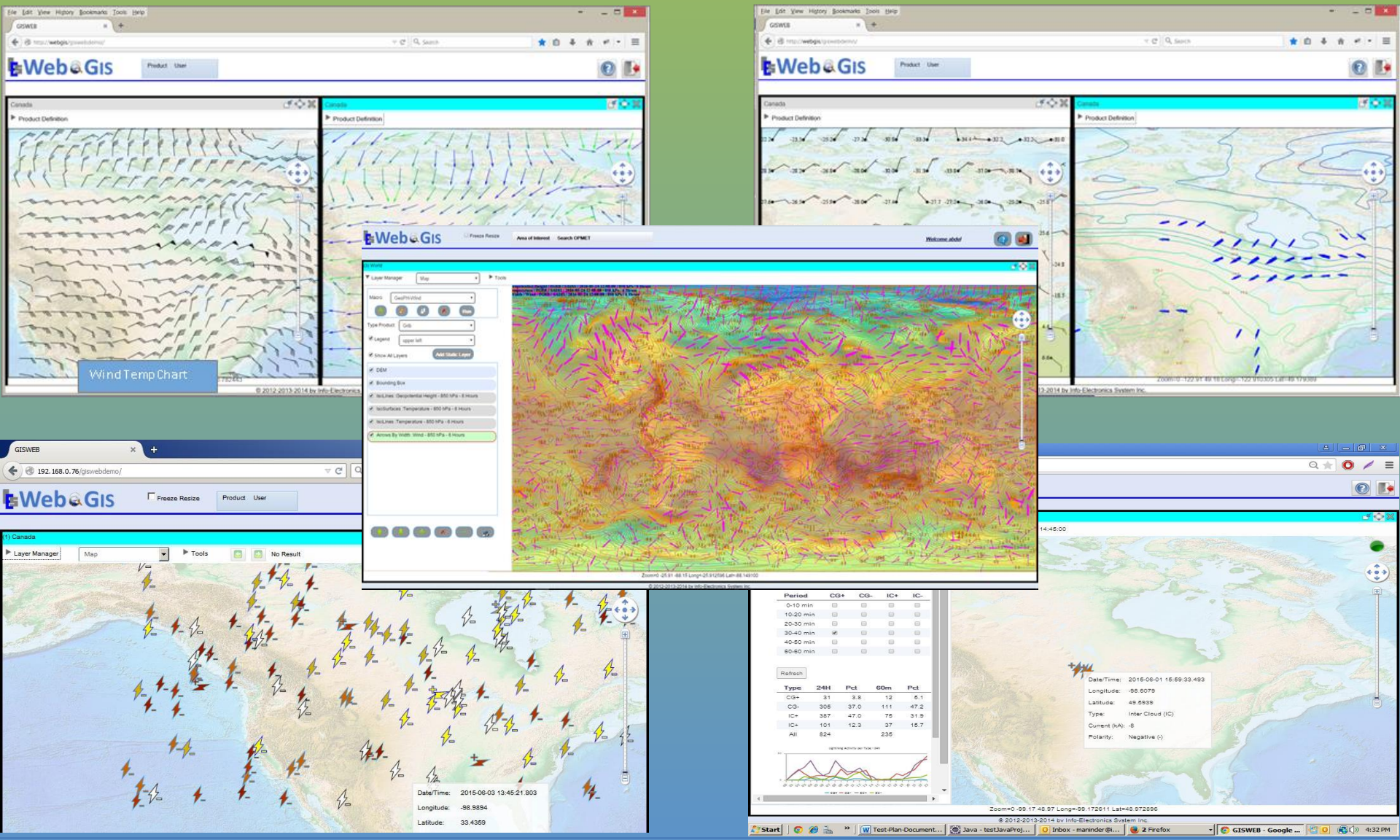
Operational functionalities: Static Layers



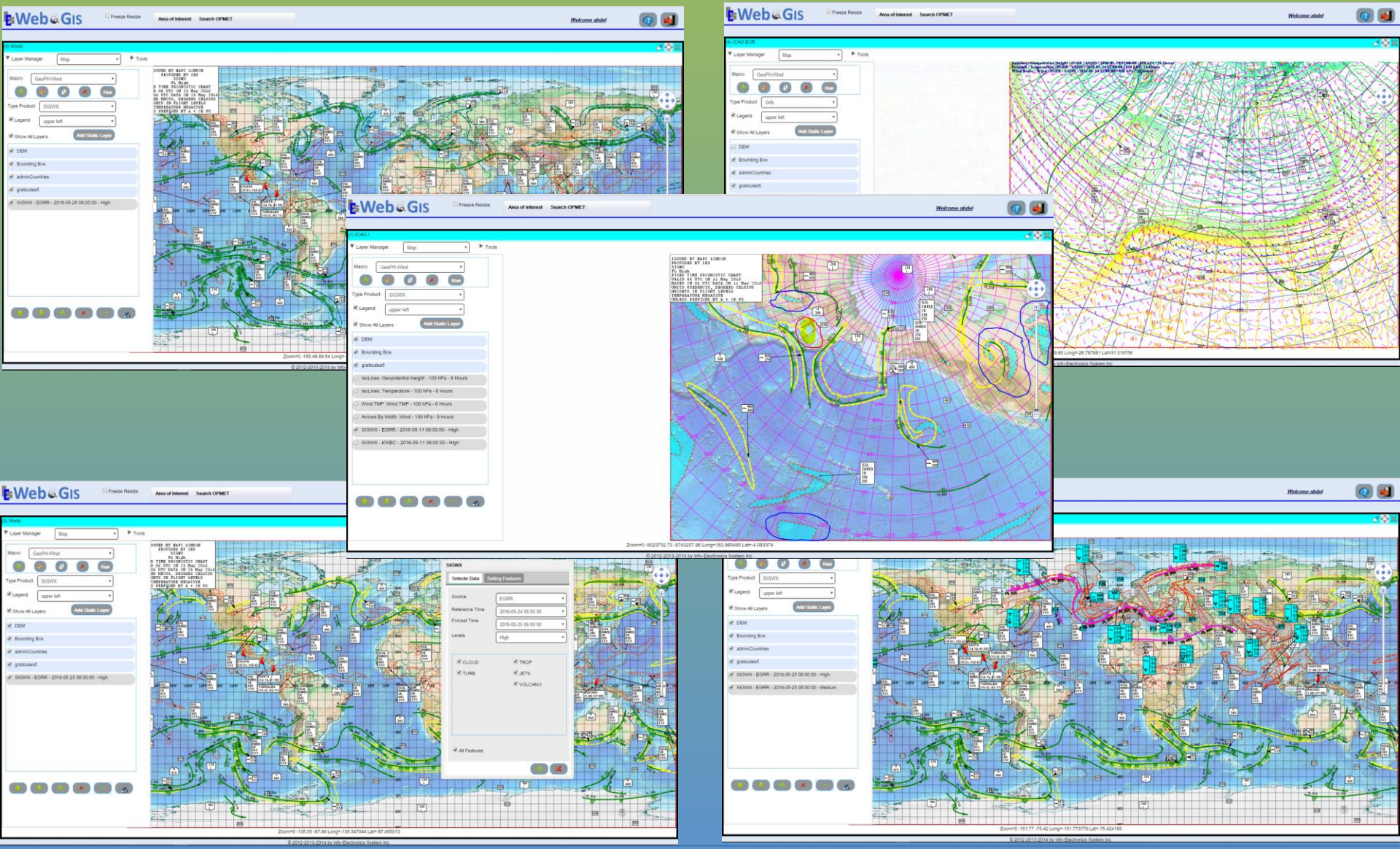
Operational functionalities: Static Layers



Operational functionalities: Display Generation



Operational functionalities: Display Generation



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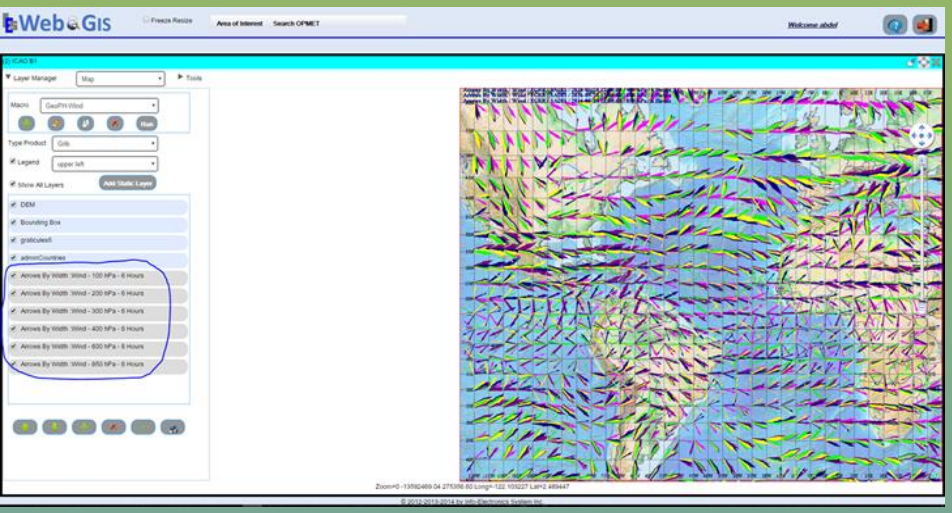
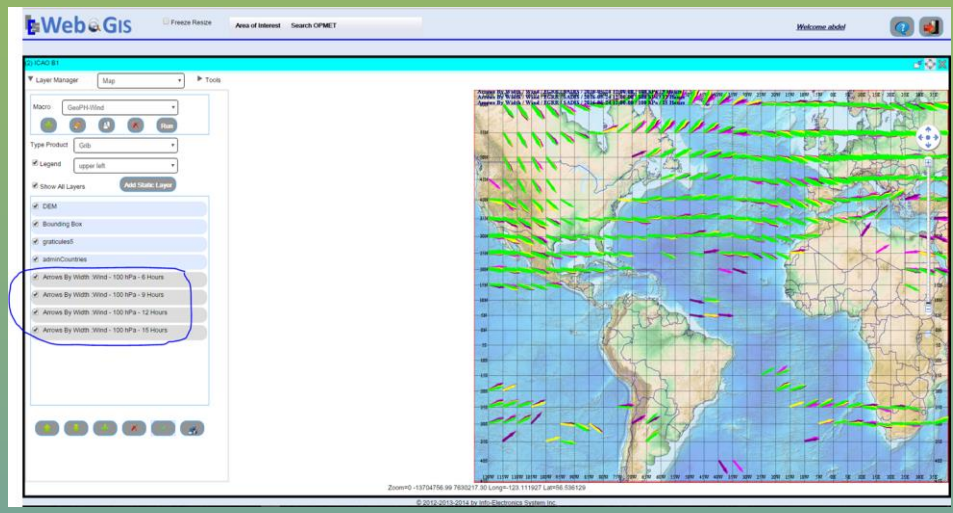
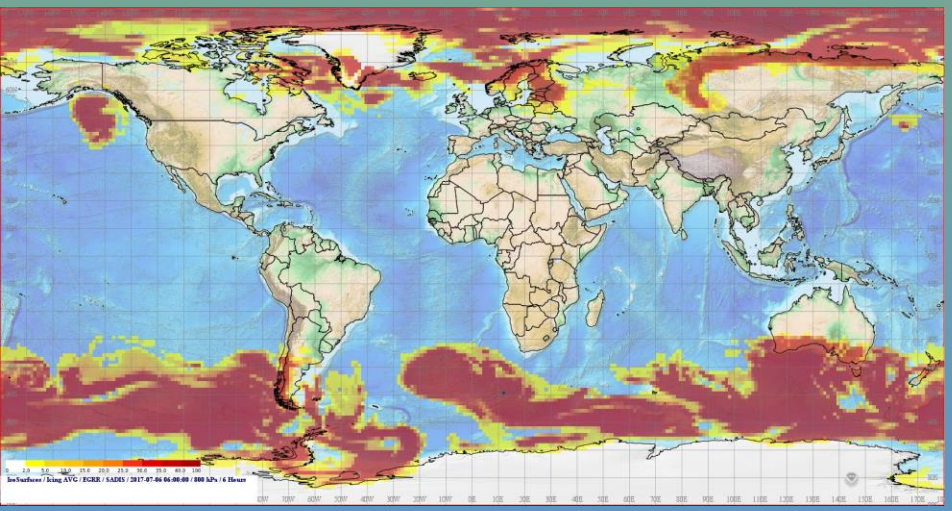
ISO-9001 Certified System

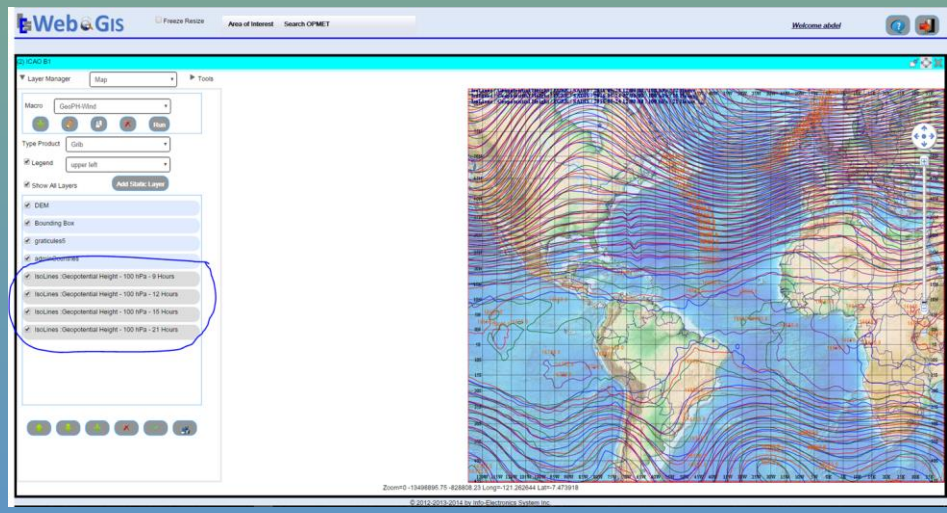
Info-Electronics Systems Inc.
Systèmes Info-Électroniques Inc.

Operational functionalities: Display Generation

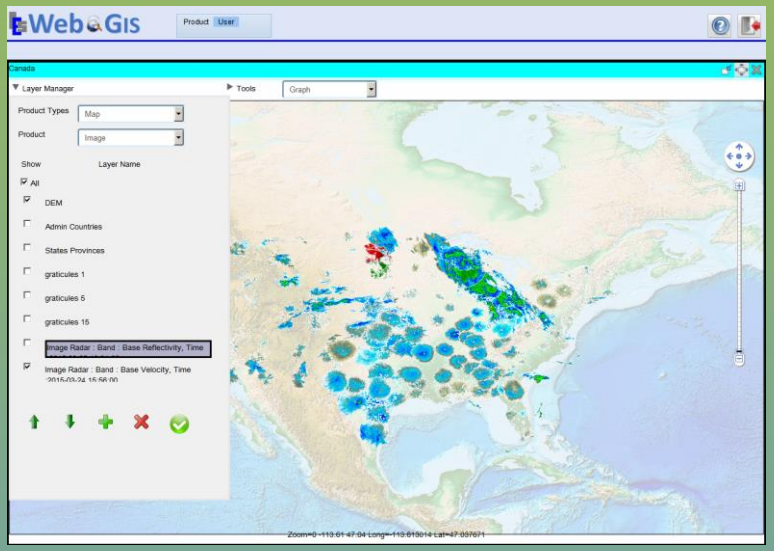


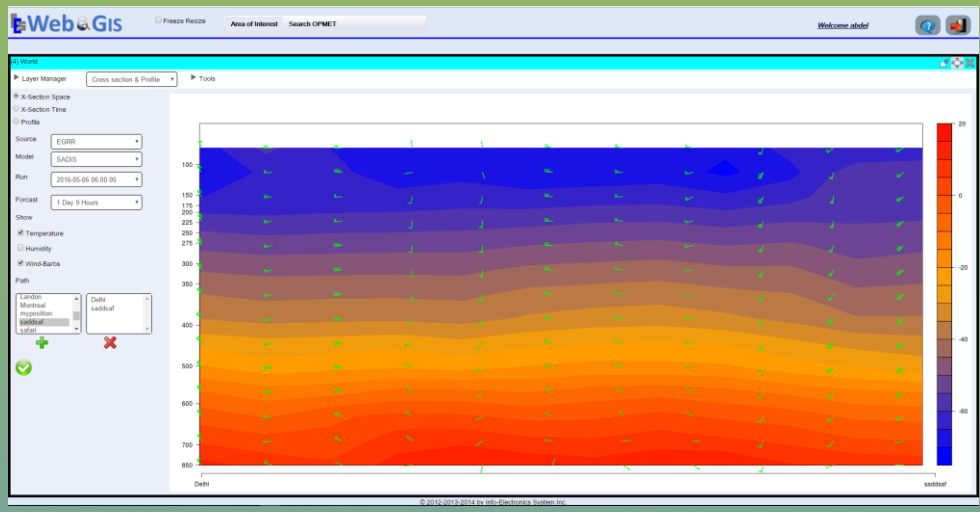


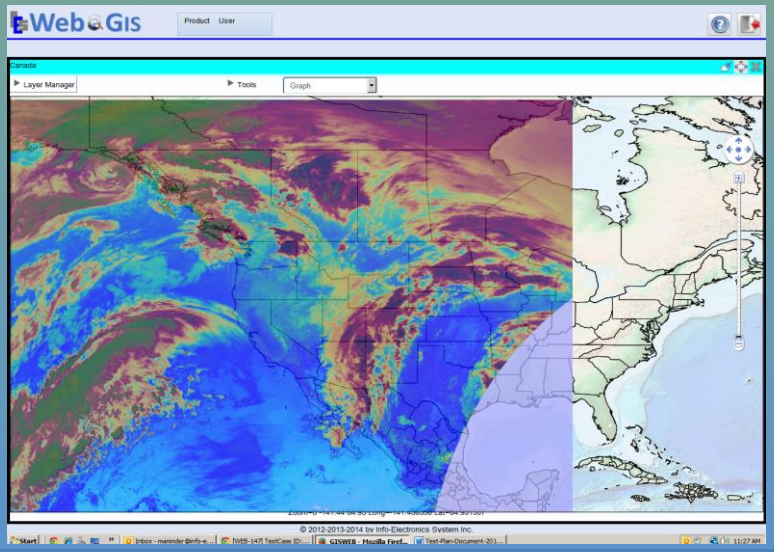


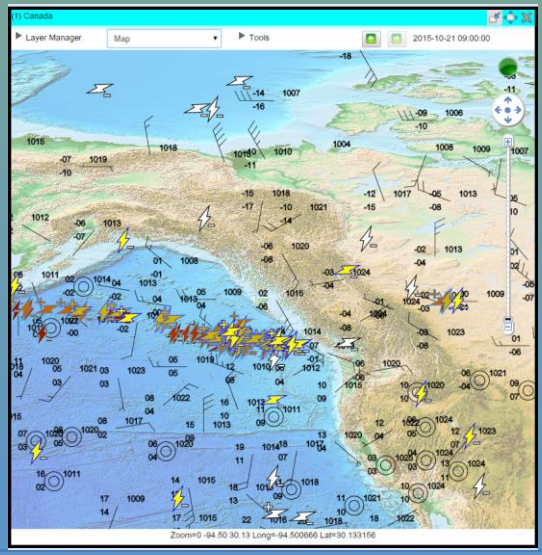


Operational functionalities: Display Generation

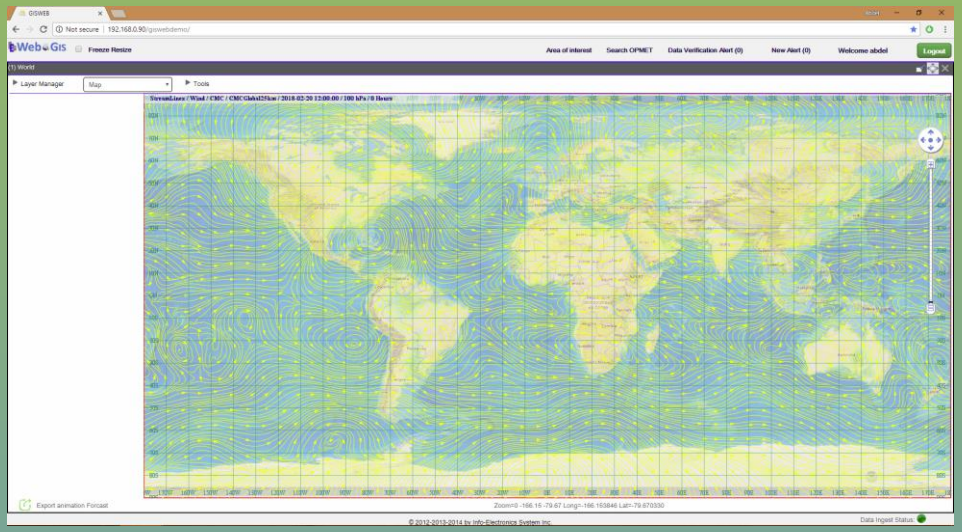


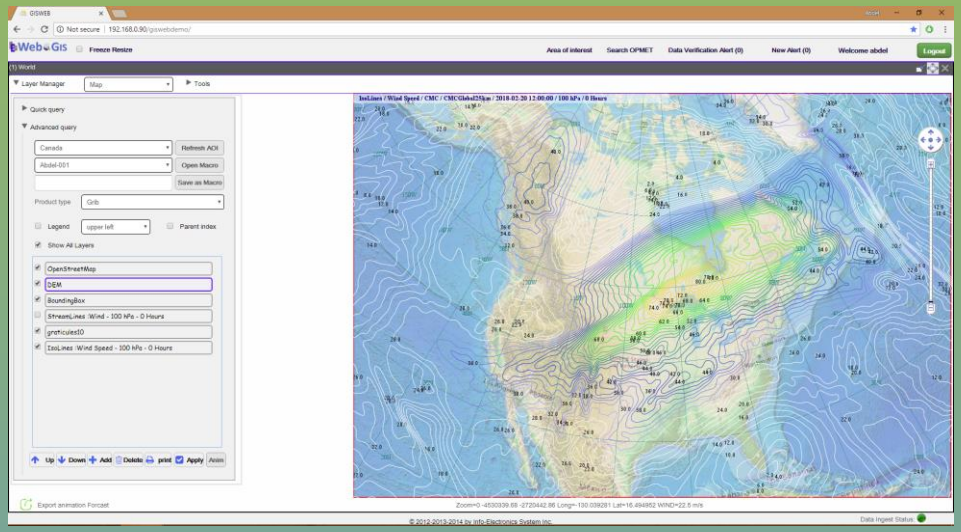


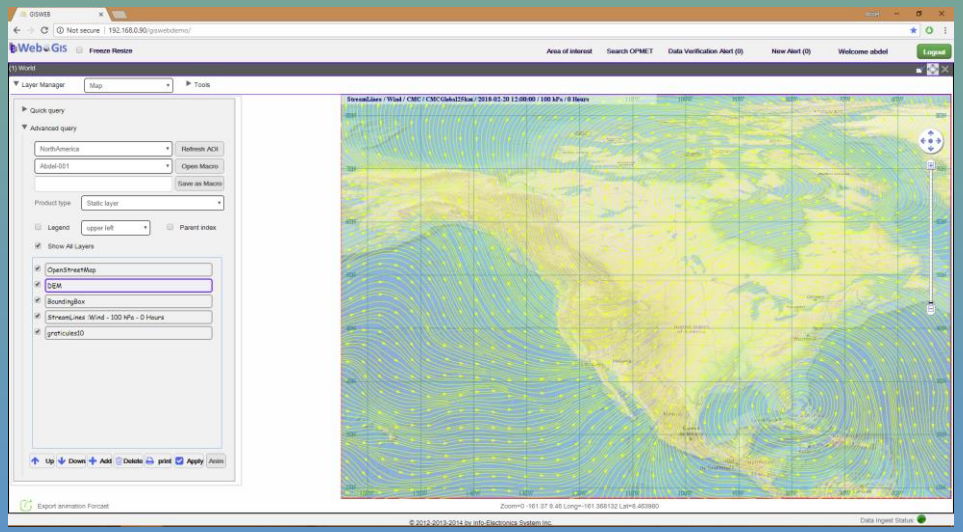




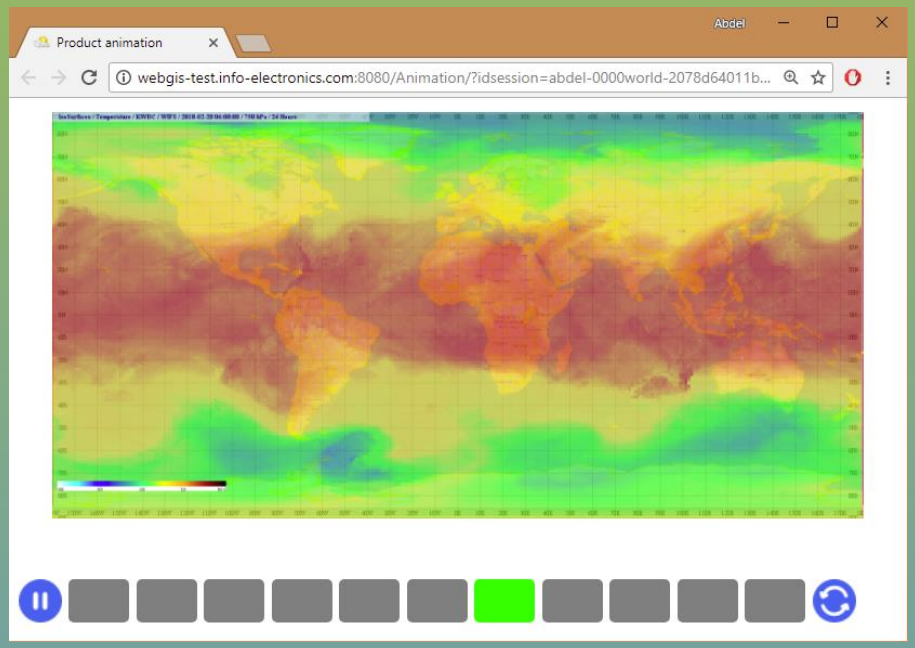
Operational functionalities: Display Generation

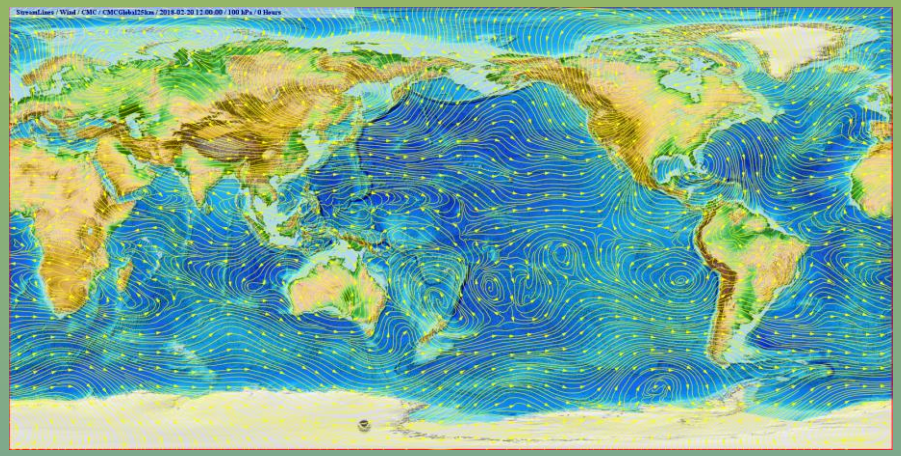


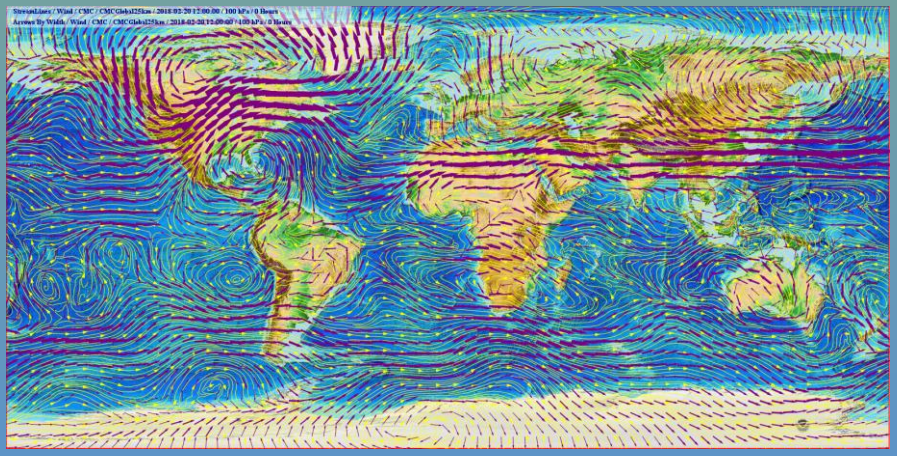


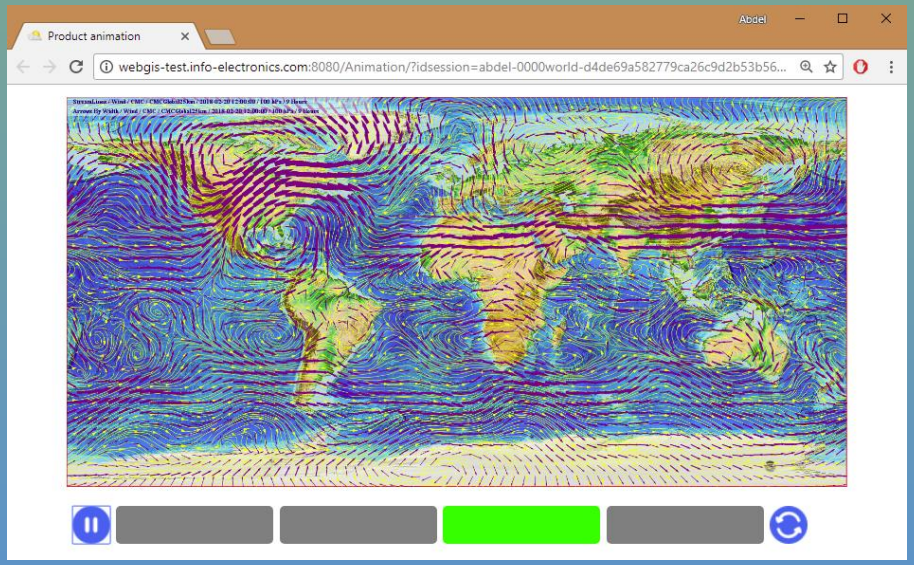


Operational functionalities: Images et Animations

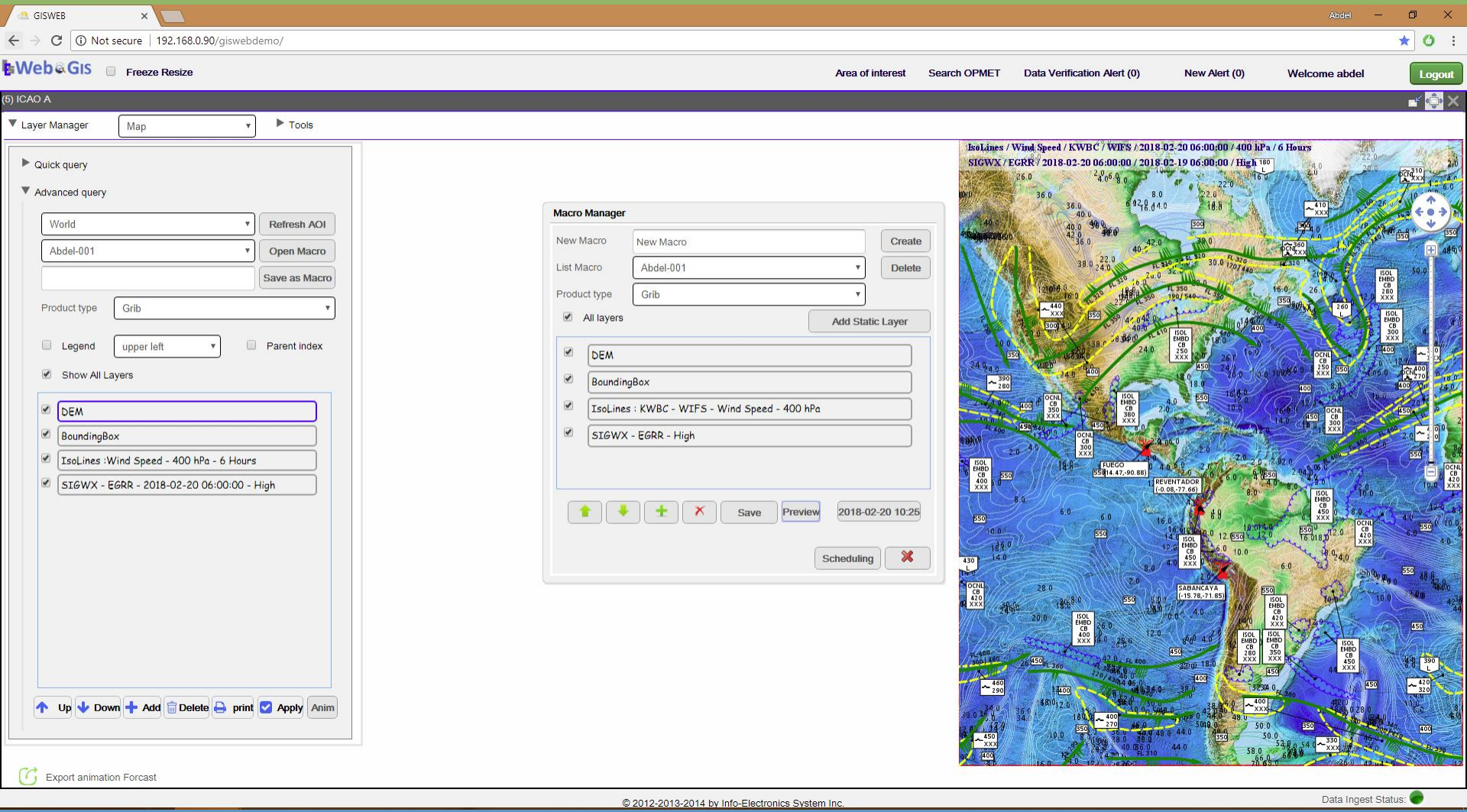




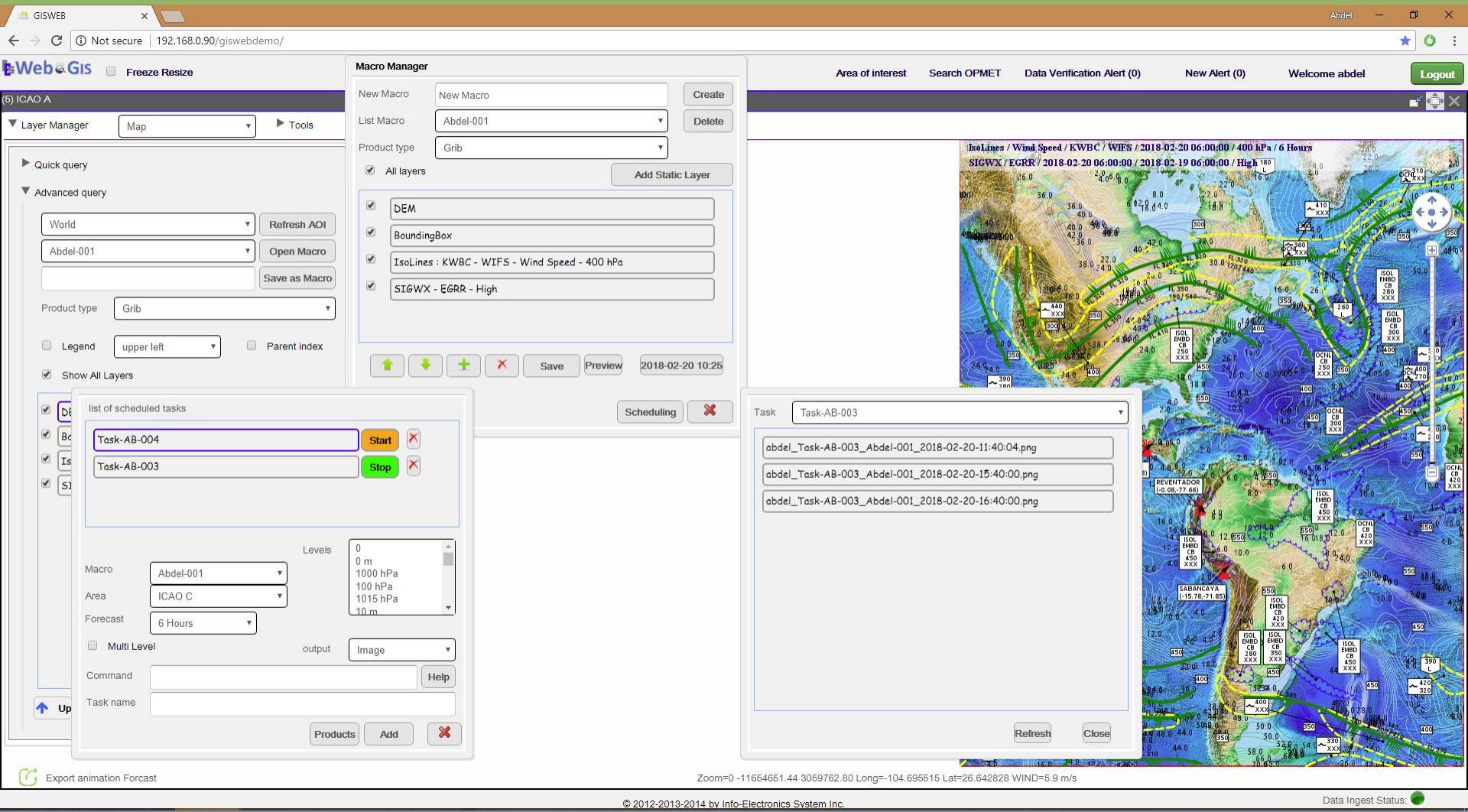




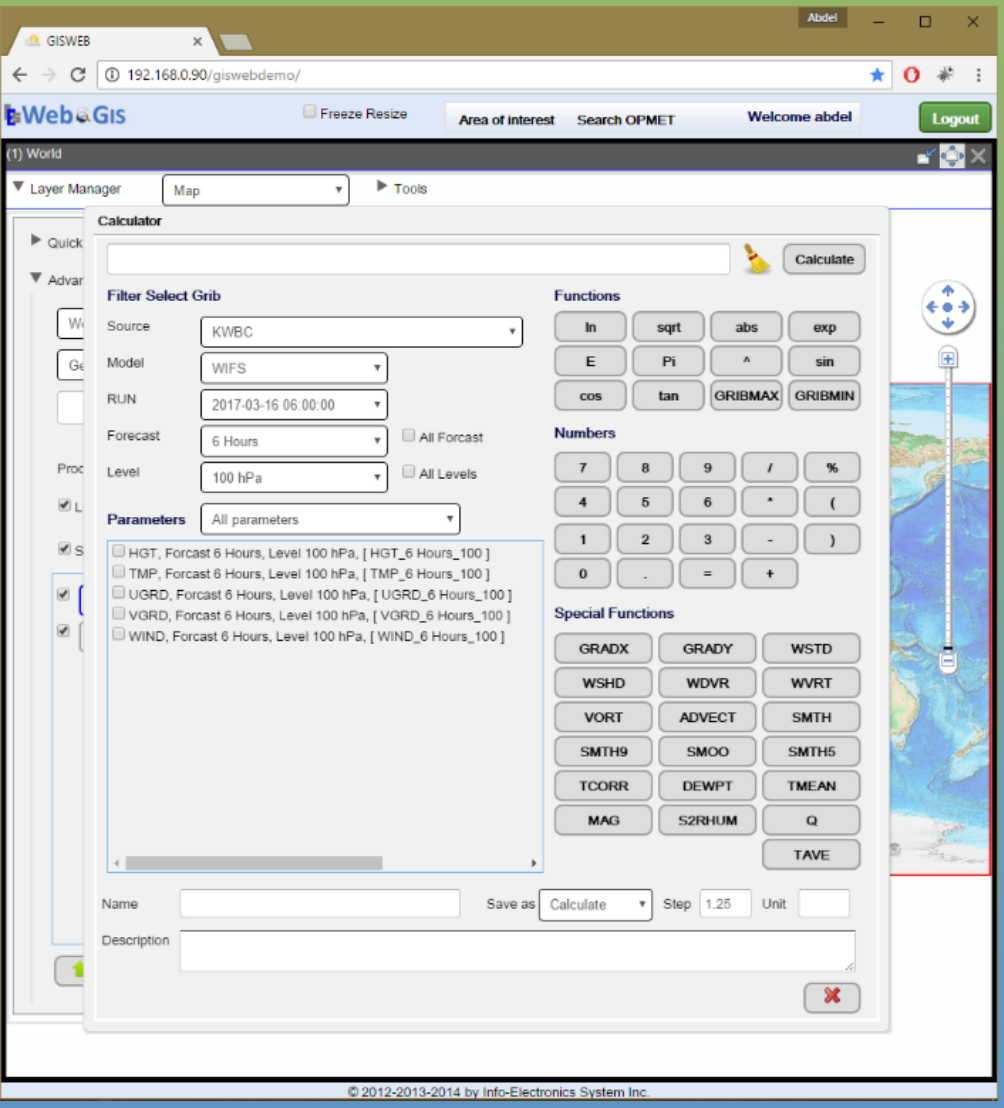
And more…Macros



An more…Task Scheduler



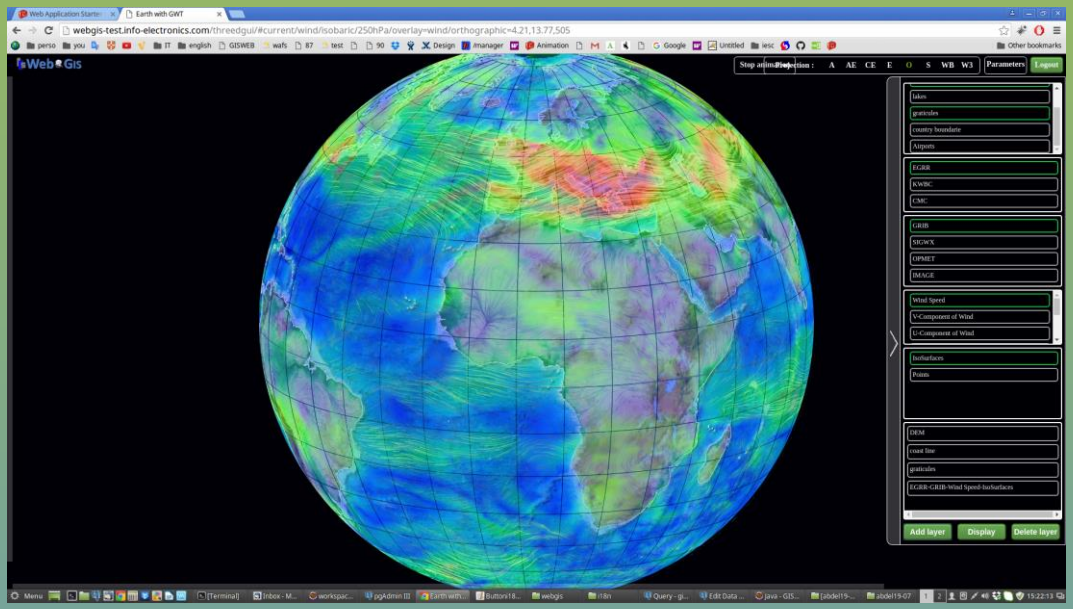
And more…Calculator

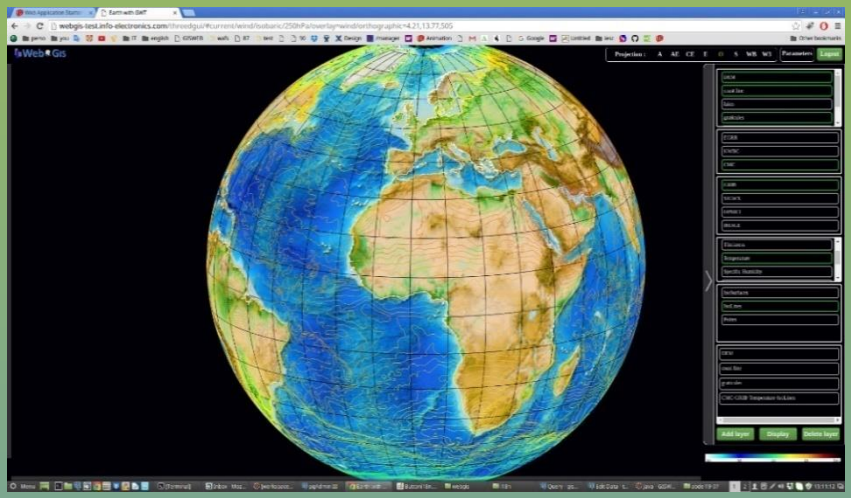


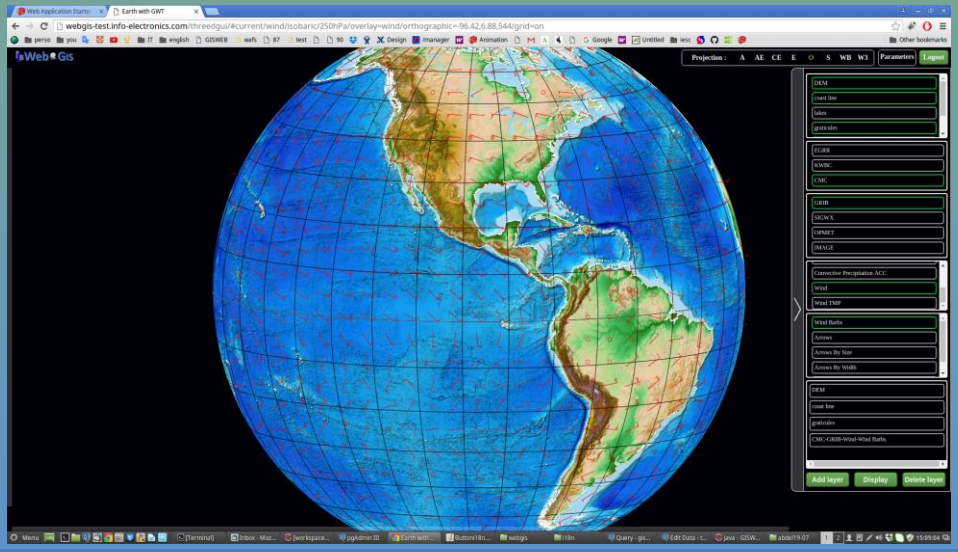
La liste suivante présente quelques fonctions prédéfinies :

- **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)

And more… 3D-Globe

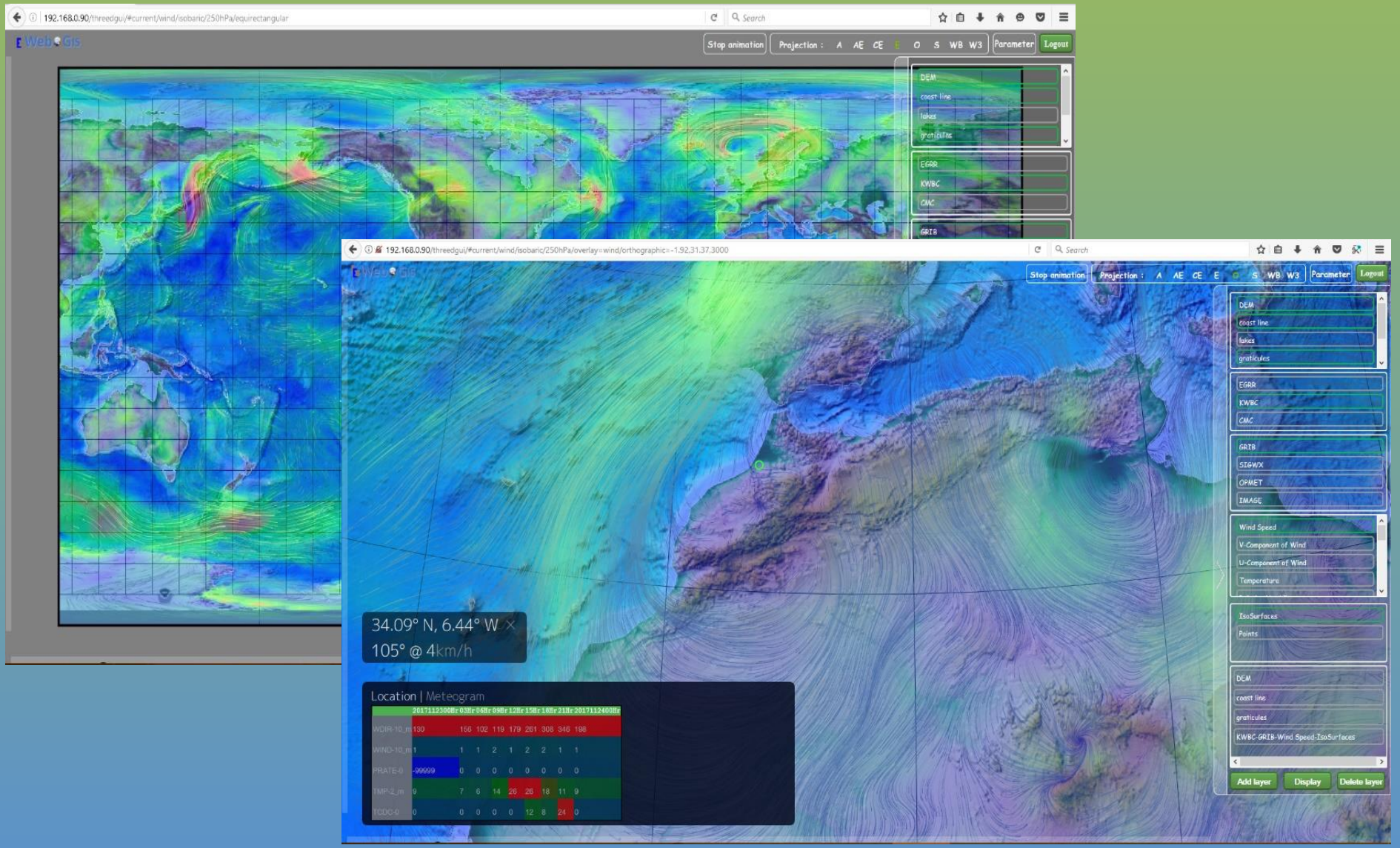




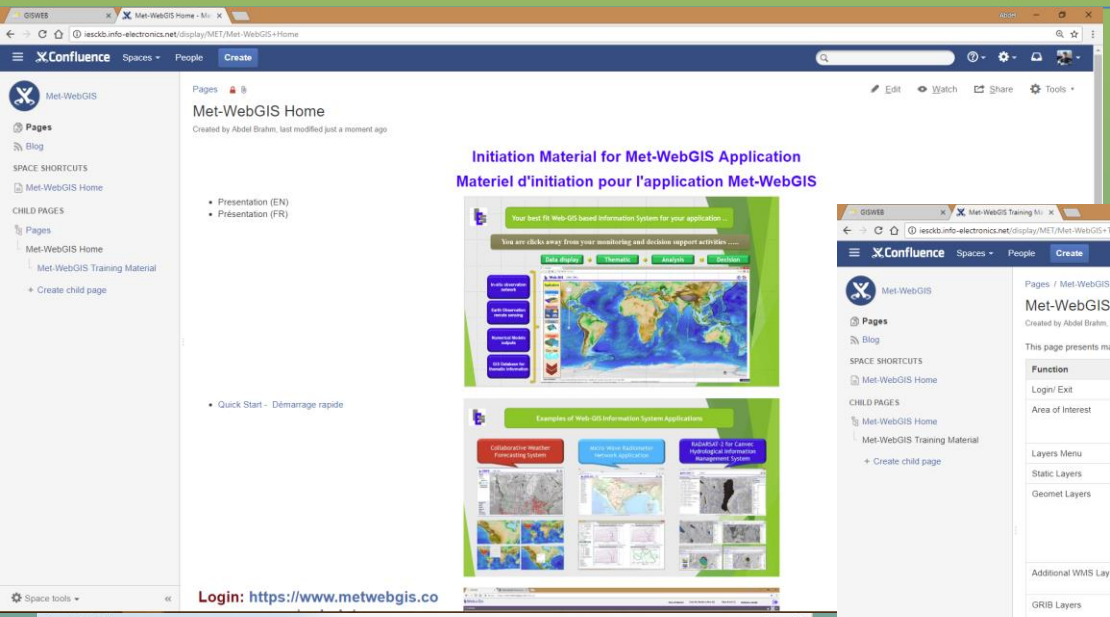


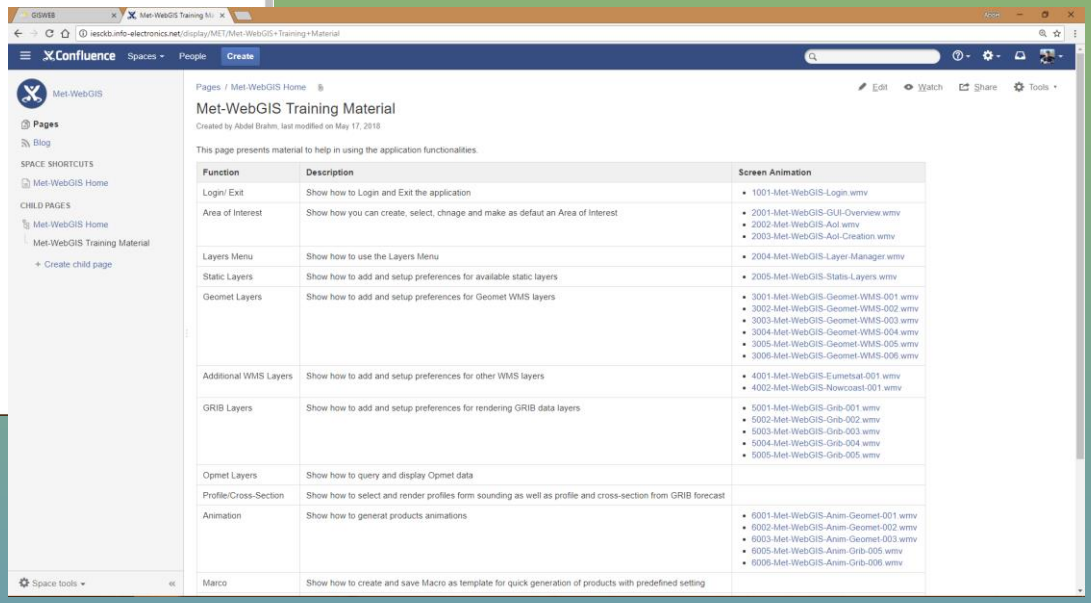
Première partie complétée en fin 2017
Programme de financement des innovations
Conseil National de Recherches Canada (CNRC)

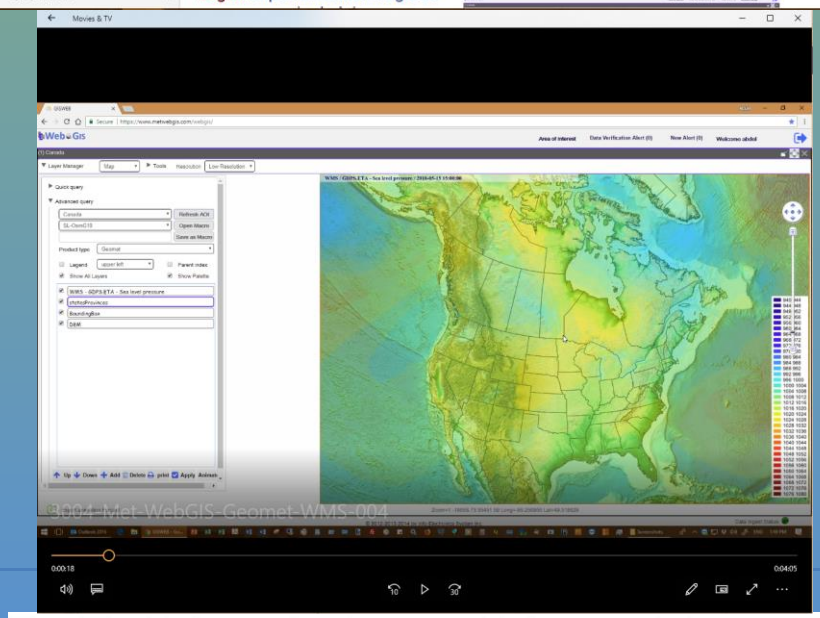
And more…3D-Globe



Initiation Material…







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

Our Contact Info

Info-Electronics Systems Inc.

Montreal (Head Office):

1755 St. Regis, Suite 100
Dollard des Ormeaux
Quebec, Canada H9B 2M9
Tel.: (514) 421-0767
Fax: (514) 421-0769

E-mail: contact@info-electronics.com

www.info-electronics.com