New Interface

The version 5.2 SPRING present a new interface. These change aim for an interactive software, to easily access the main functions and include new editing features, views and query.

One of the most important interfaces change is on the main tool bar organization. The Control Painel is based on a hierarquical model category, infolayers and auxiliares dispalys on screen tabs. The Control Painel and Auxiliary Screens can be attach or float, as is shown on the picture below.

Adjusted Control Panel

Auxiliary Display Floating
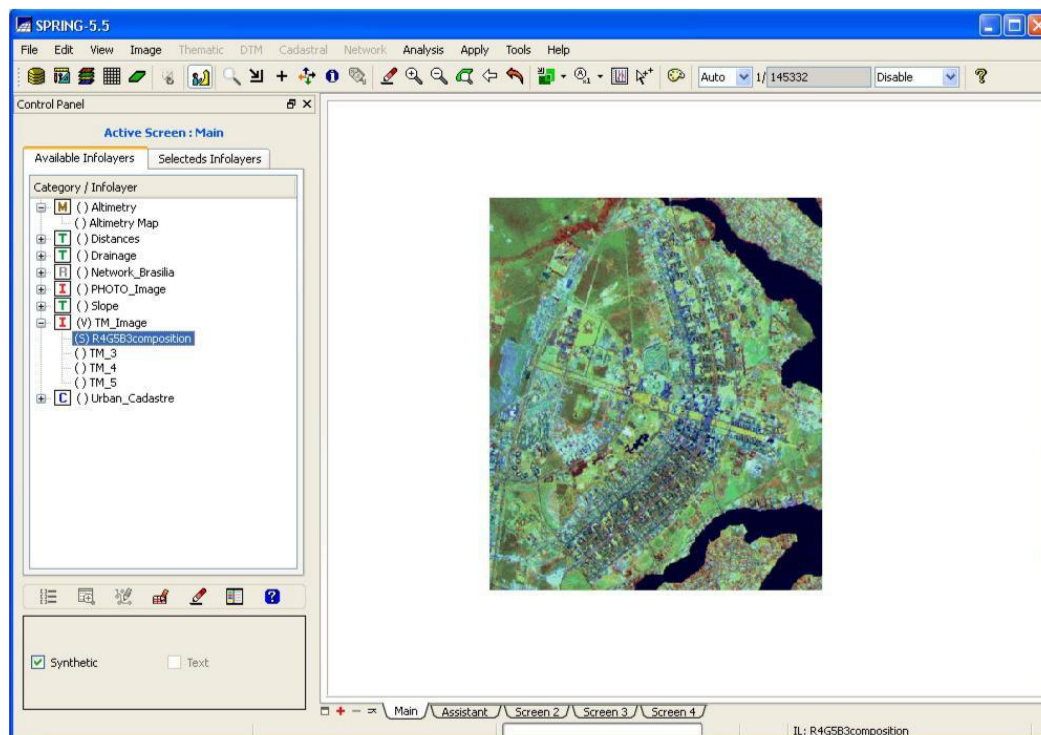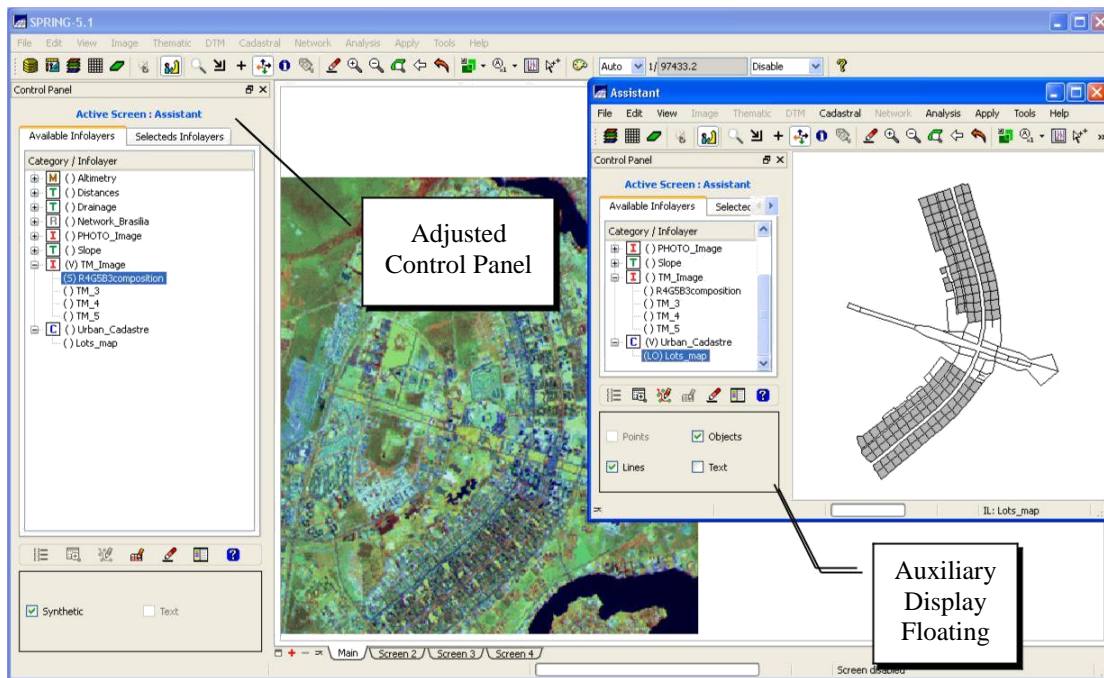
When the Control Panel is attach to the principal window each auxiliary screen has your on control panel, but in case the window is floating it will be only one CP for all windows.

Control Panel Floating

Auxilary Display Floating
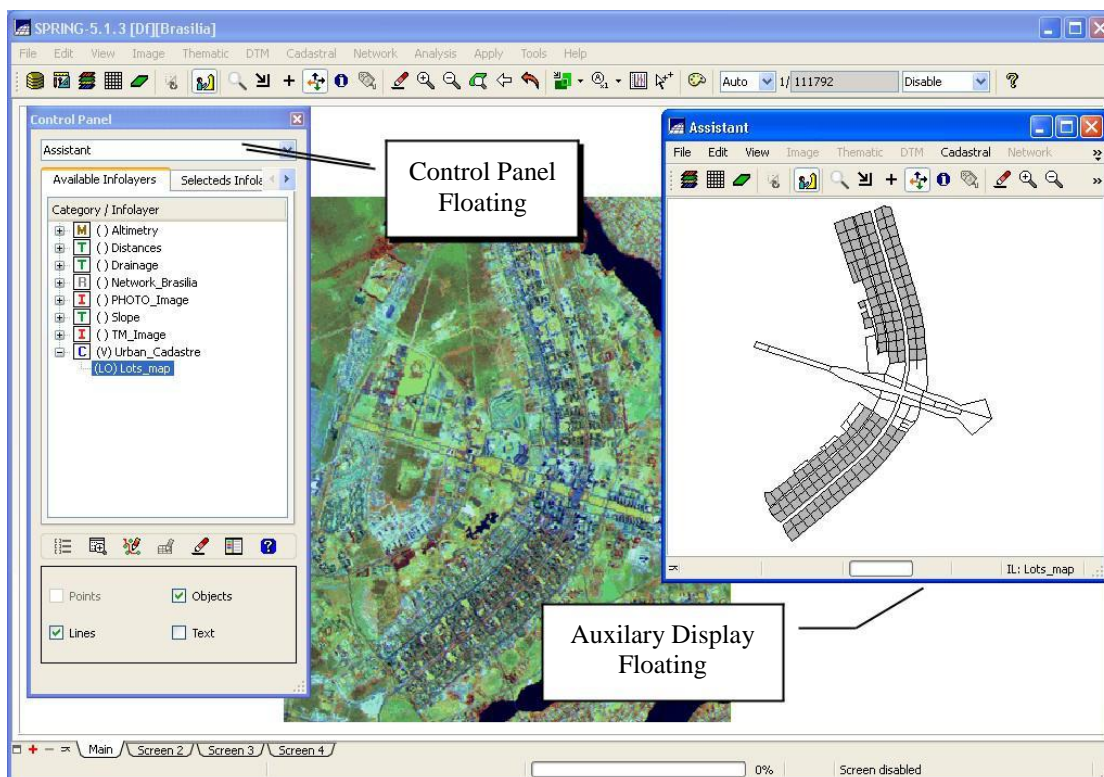
New Draw Module

SPRING 5.2 draw module was modify. From now on when a representation is selected the draw is automatically done. The methodology developed was that each drawn infolayers uses different processes to push to the maximum of the processors in the users computers.

Besides that to improve the drawn timing, some representations are maintained in memory to use on the redraw of the infolayers.

A new item was add to the SPRING 5.2 tool bar, the zoom cursor.

- How it works?

- After the area selection the draw operation is automatically done (zoon in)

- A double click on the screen to do the "zoom in" operation.
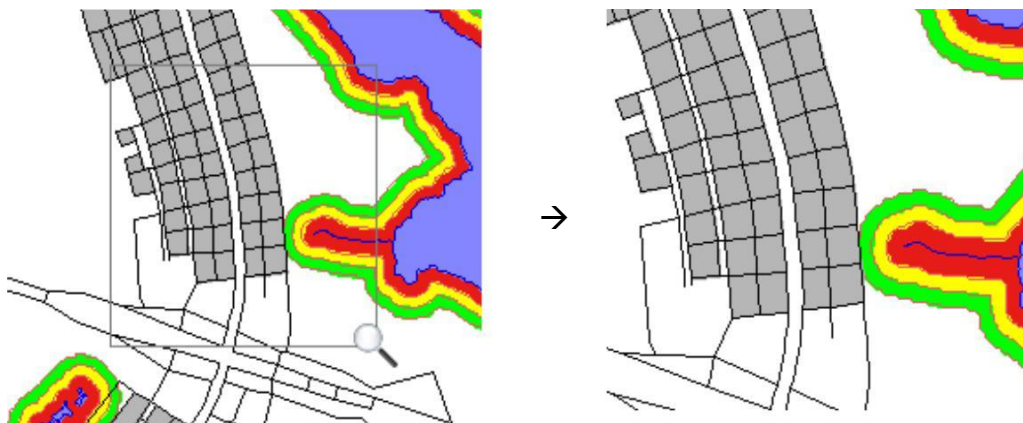
Operational System 64 Bits

To maintain the SPRING 5.2 compatible with the new existing

Architecture and OS an adaptation was made in the SPRING applicative to 64 bits platform.

The new SPRING 5.2 64 bits Windows and Linux can work with more information.

The 64-bit platform is not yet widespread and SPRING 5.2 has some restrictions. Following restrictions: some databases could not be used, and the LEGAL language is not available. On Windows platform only

the MySQL database available and in the Linux we have MySQL, PostgreSQL and Oracle as options.

Restructuring window

In a clear objective to improve the use of SPRING 5.2 interfaces, some windows have been completely restructured. With the improvements the User will have greater perform to execute tasks associated with window redesigned.

The following are the SPRING 5.2 windows that have been restructured:

- Database Module
- Object and Non Spatial
- Visual Graphics presentations
- Txt Graphics presentations
- Import Data
- Export Data
- Object editing
- Connections Table
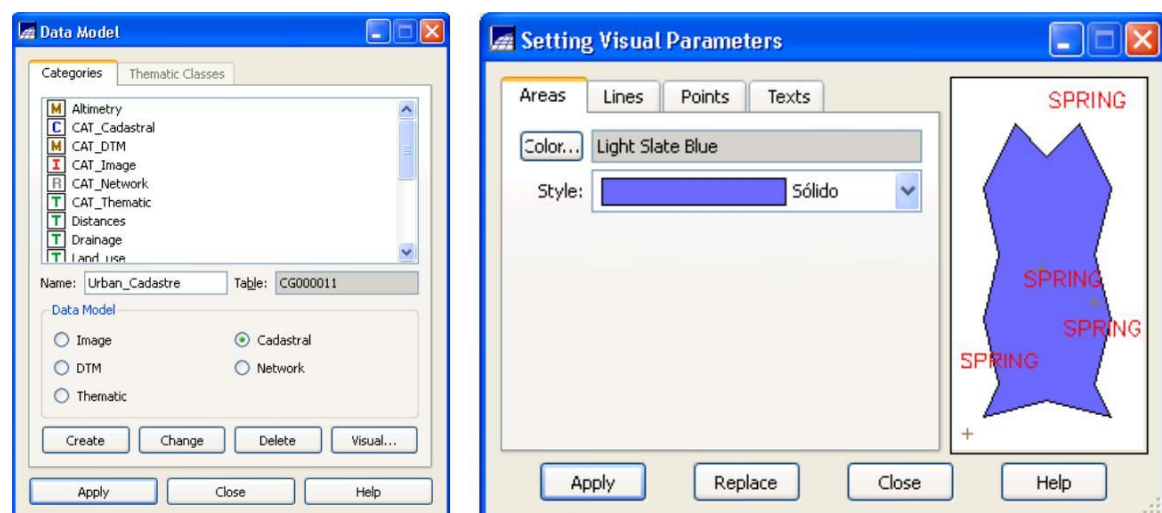
New Editing Vector toolbar

The editing tools vector and raster also developed, based on windows transformation for editing toolbar to create an auxiliary operation bar (which can be attached anywhere on the Principal window) and the ability to insert, remove and move points through the vector window

properties. Were also included new tools for lines creating from points and line doubling.
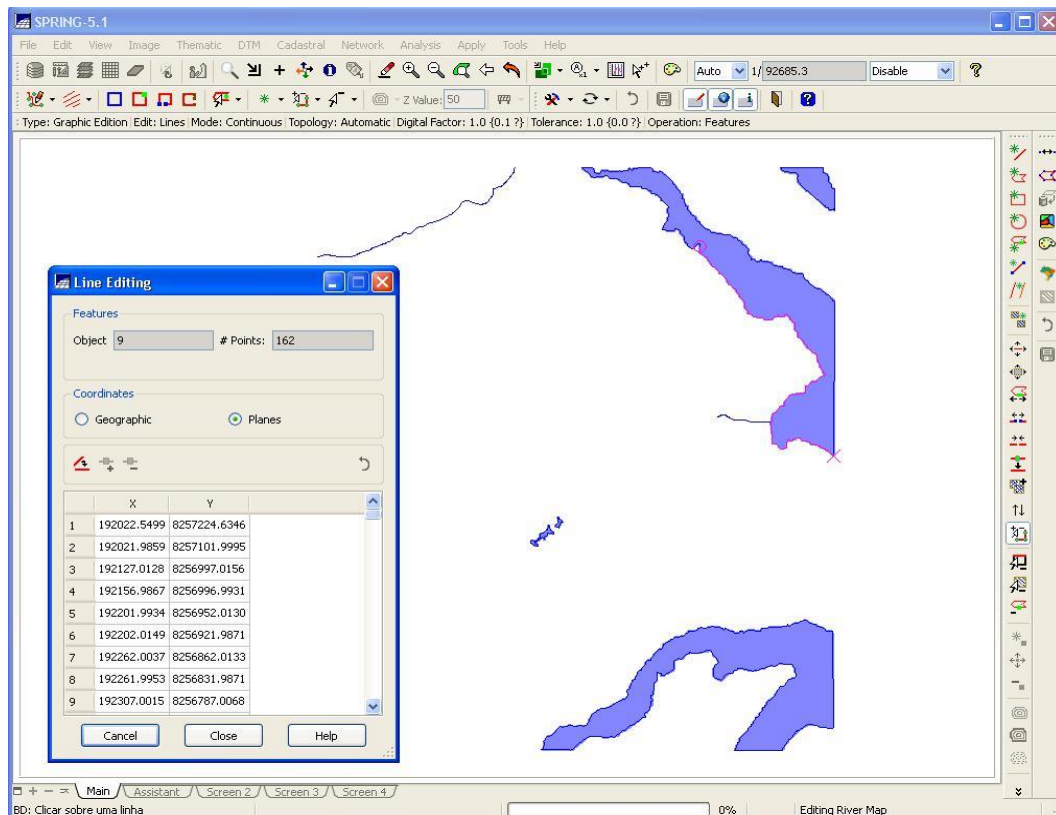
New Table Object Editor and Graphics

Objects Tables were connected to the main screen and the attribute table gained new functions for fast searching. The graphics package is more sophisticated allowing color attributes, text titles, axes and curves be configured by users.

In addition to these changes, a new feature allows you to visually track the movement of the cursor across multiple screens (main and / or auxiliary) simultaneously.
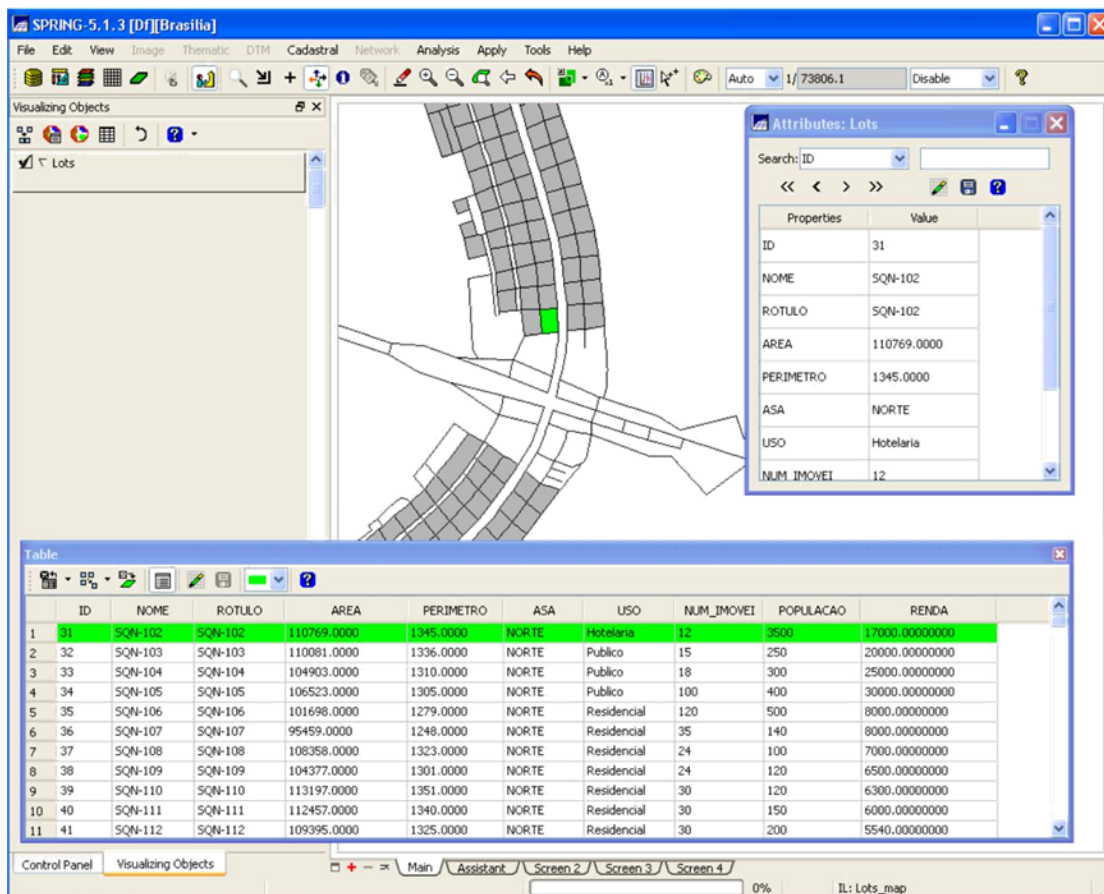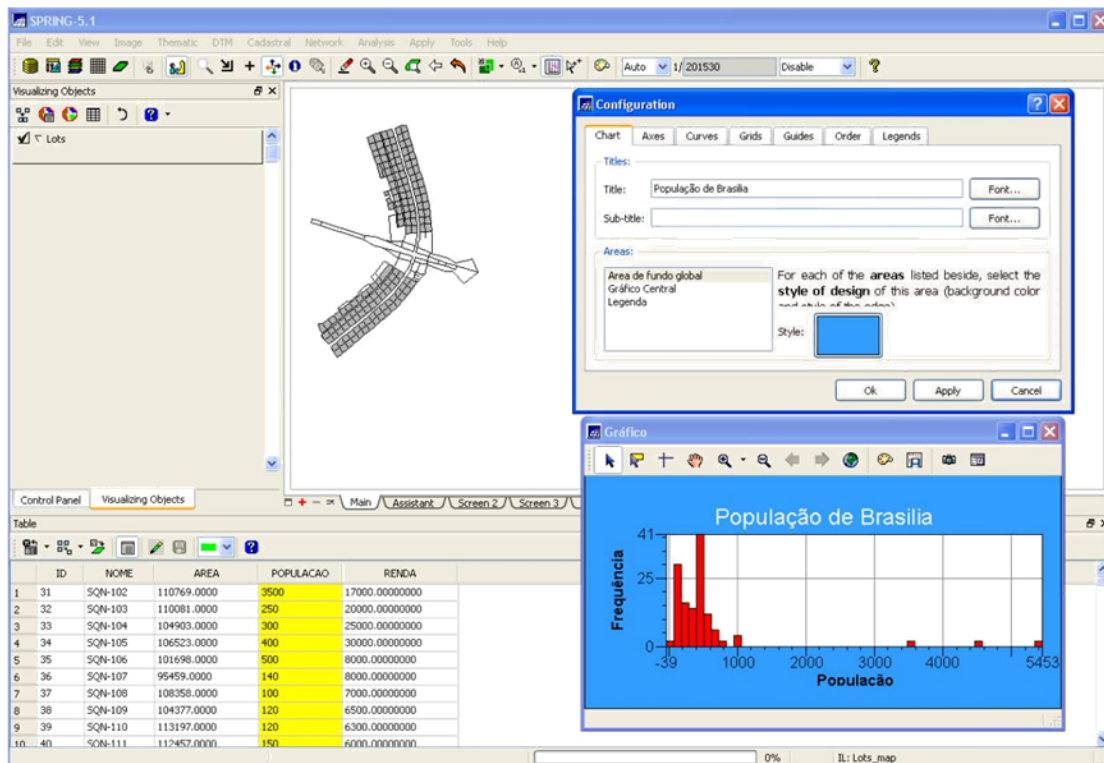
New Data Formats

In order to put SPRING 5.2, more compatible with the available data formats. New formats of spatial data have been incorporated into the operations Import and Export data. Through these new data types SPRING 5.2 is increasingly linked to other applications.

Data formats added:

- DXF and DWG AutoCAD native extension.

- KML, express geographic annotation and visualization of existing content into 2D maps and 3D browsers. Google Earth is a tool that uses this data format.

- JPEG2000 is a compression standard for high definition images, which can compress up to 90% of the original file without losing image quality.

Multiuser

In order to use the SPRING 5.2 in enterprise environments, where there is a hierarchy data flow, in that some users may have different functions (generation, Publication, Organization and Visualization of data) in a database. We implemented the Database Multiuser methodology.

Now multiple users with different profiles can access the same database simultaneously with safety, only if they have local access to the directory. Enabling the database use by group of users responsible for the creation and maintenance.

In addition to concurrent access, the database Multiuser methodology brought to the SPRING 5.2, the idea of:

- Working Groups, sets the permissions that a working group can perform.

- Users, identify the database responsible.

- Sessions, reports the operation being performed by a User on the info layer.

Note: Only the managers of the MySQL database, PostgreSQL and Oracle are available.

Note: Multi-user tests advanced.
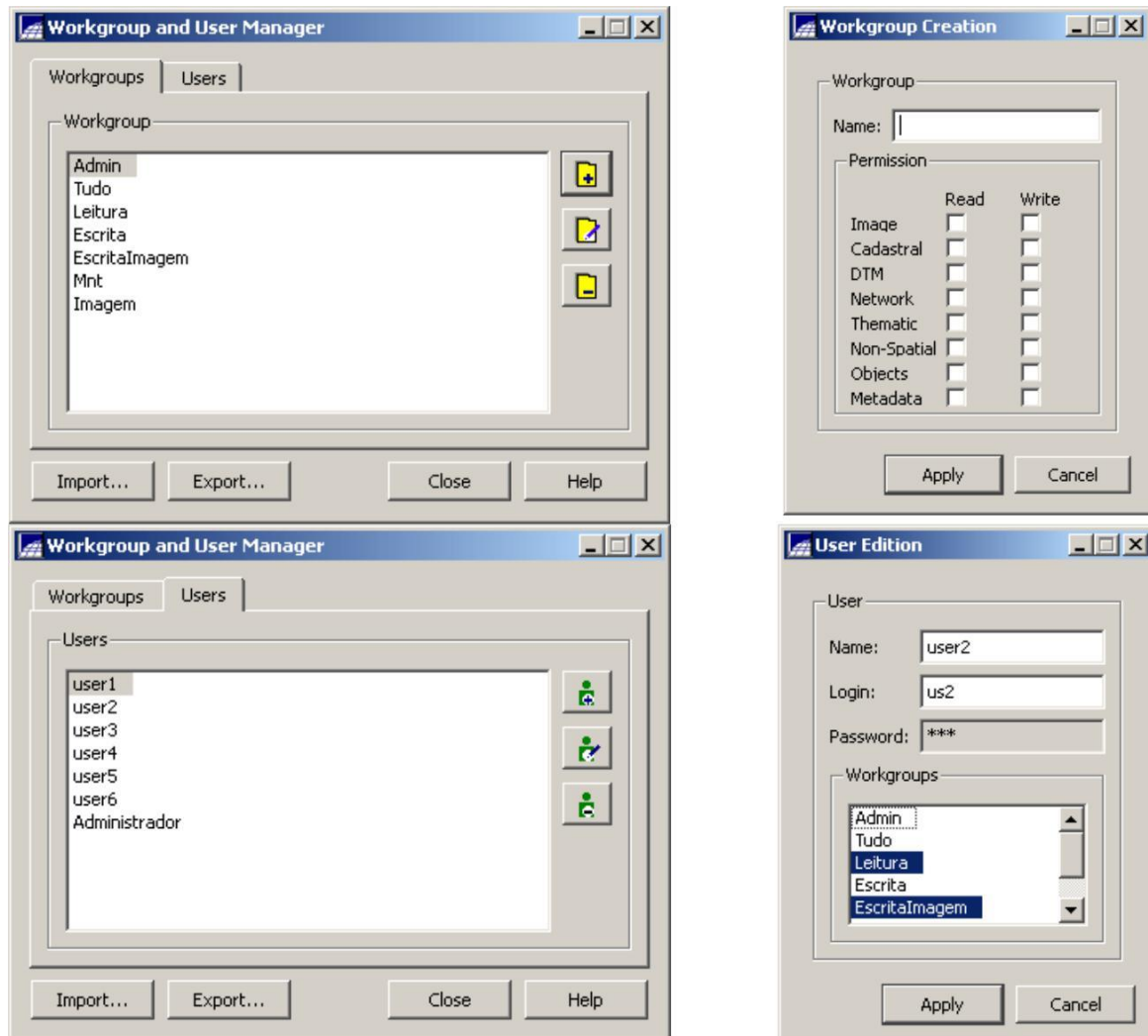

Importing GPS Data

One way of obtaining data is performed by devices that use the Global Positioning System (GPS), which is a positioning satellite system aimed to determine the position of a receiver on Earth's surface. Currently, there is a growing use of devices with the GPS system.

With the same goal of leaving the SPRING 5.2 each time updated with the new technologies. Emphasize the import of data collected by devices with the GPS system.

SPRING 5.2 takes data from a device as follow in a direct way, getting all the information present on the device and can choose which types (Waypoints, Routes and Tracks) information will be imported, or to receive the location information in real time may be interrupted at any time.
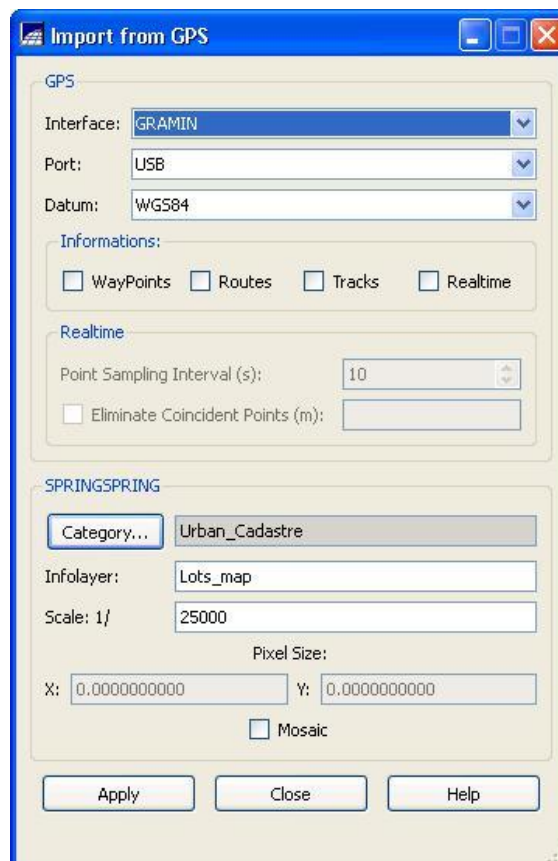
Remapping Color

Incorporate a new way of viewing the monochrome images and digital images to SPRING 5.2. Now, SPRING 5.2 presents this information through a map of colors, ie, the User associated with a gradient color to monochrome images and numerical, where the image values are represented by colors.

A new mapping colors feature of SPRING 5.2, already contains a large set of color gradient, but the User has the flexibility to create your own color gradients.
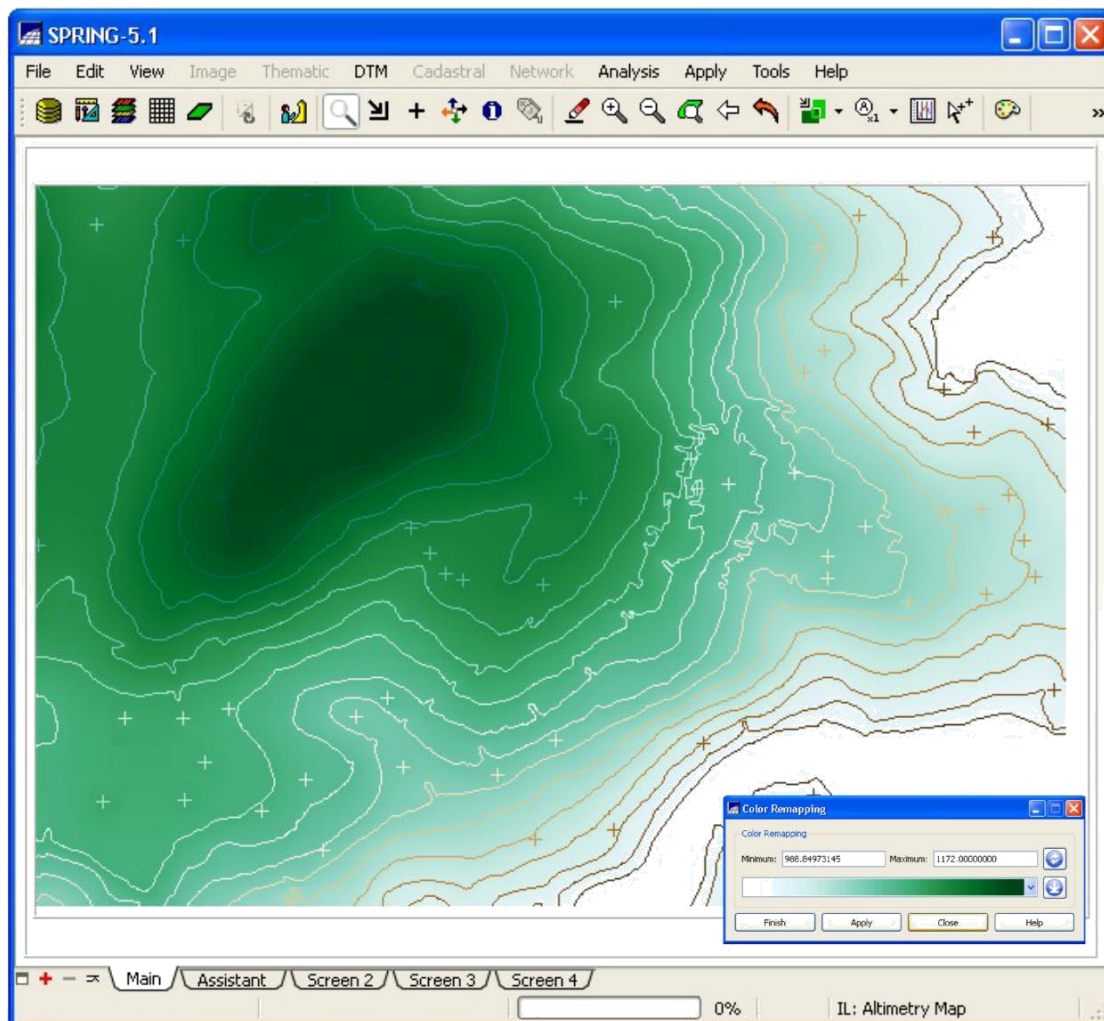
Validation Template

We incorporated into the SPRING 5.2 a grids and images Validation Template, featuring graphs and statistical reports, checking the info layer quality from another.

Grades and Images Validation:

· SPRING 5.2 Inform the quality of a numerical grid or image theme through reference sampling points or other images (numerical or image theme).

· Quality is represented by graphs and statistical reports, i.e themed images reports contains Kappa index.
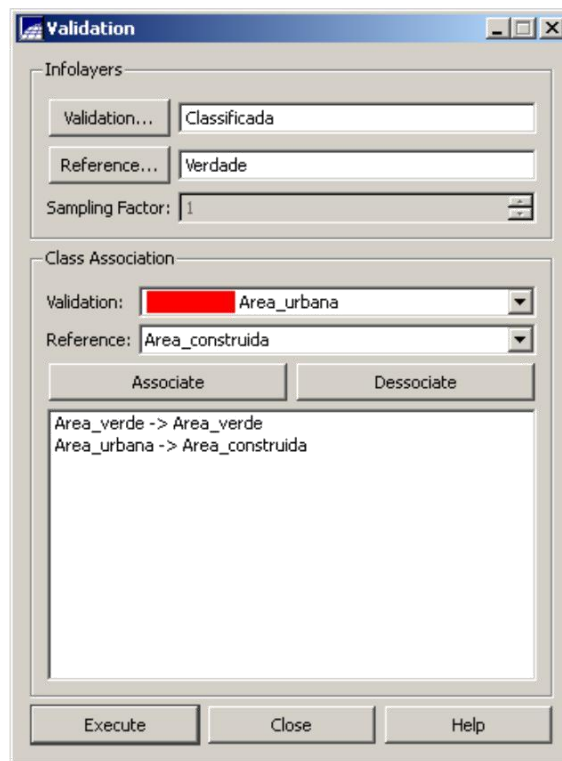
Others news of Spring 5.2

- *New Wizards*

Datuns Management: The Management Datuns is essential to add new Datuns that are not available in the SPRING 5.2. Now, the User can create and manage new Datuns (Models of the Earth) and involve them in the projections presents on SPRING 5.2.

Shapefile: Allows the User to perform the duties of import and export Shapefile (. Shp) informing the data necessary step by step.

Representation Text: Allows the User to perform the duties of import and export text representation of the following data formats SPR-ASCII, DXF and DWG.

Tables: Allows User perform the import and export object categories and non-spatial tables in ASCII-SPR, DBF and SpaceStat.

- *New Managers Database*

Managers Incorporation database platforms that were not previously available. Offer the PostgreSQL manager on Windows and Oracle on Linux.

- *New Direction restrictions at Network model*

Restrictions attribute Inclusion at Network model, which adds barrier between two arches of the info layer. The functionality is located on the toolbar vector Edit.

- *CR Buttons Elimination*

In many windows were the CR buttons. They were replaced by the Enter key or just take the focus of the text box.

- *New Tables with more than one link*

SPRING had the limitation of only one link between the objects tables and Not Spatial. In the SPRING 5.2 is possible to realize the connection between various Object table and Not Spatial.