

VIDAEXPERT: DATASET VISUALIZATION

The screenshot displays the VidaExpert software interface. The main window is titled "VidaExpert" and contains a menu bar (Project, Scenario, Data, Map, View, Window, ?) and a toolbar with various icons. The central area is divided into several panels:

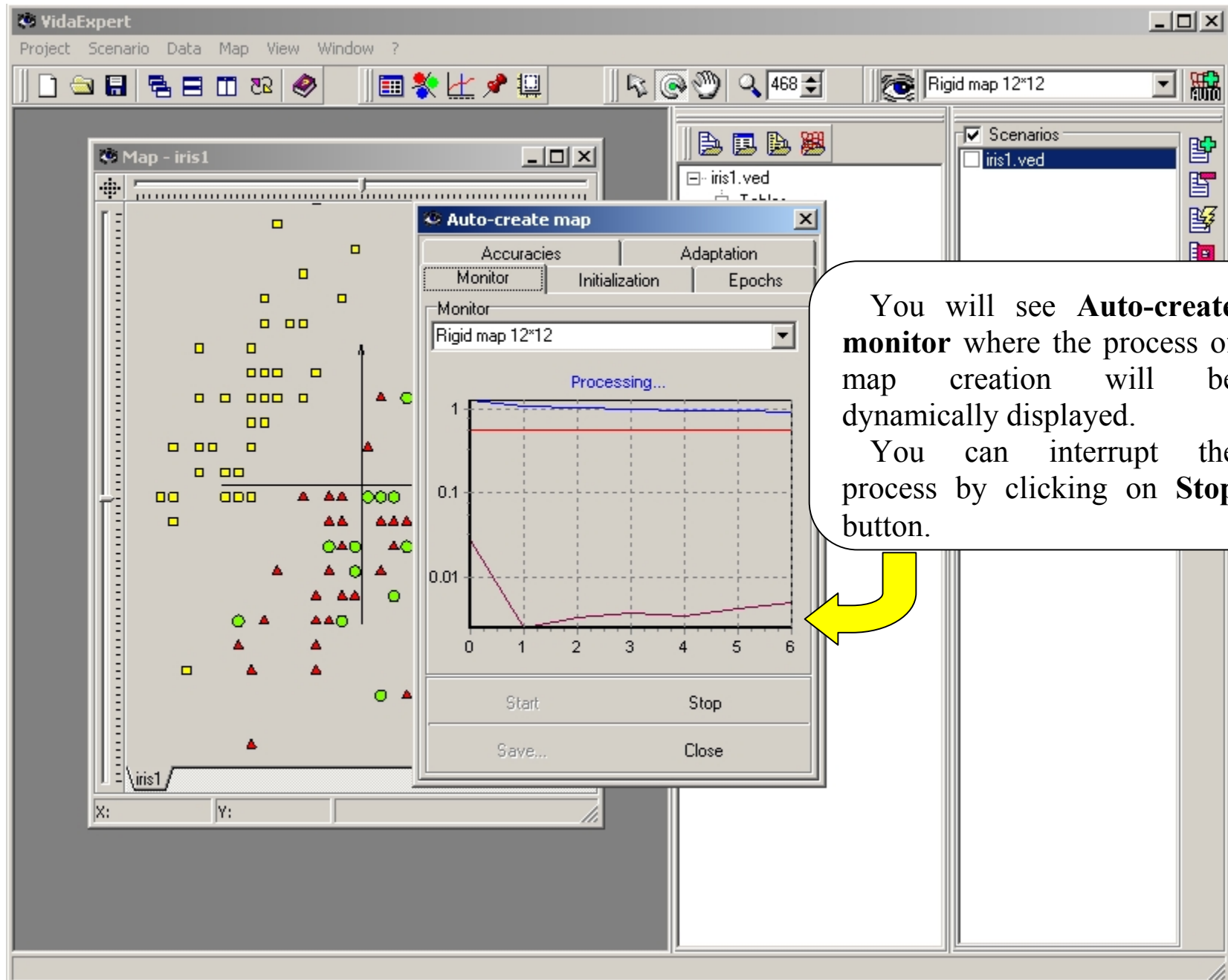
- Object Manager Panel (Right):** A tree view showing the project structure. The "Data" folder is expanded, showing "iris1" and "iris1" sub-items. A yellow arrow points from the "iris1" item to the "See It!" button in the visualization panel.
- Visualization Panel (Bottom Right):** A dropdown menu is open, showing a list of map types: "Without adjusting 10*10", "Without adjusting 10*10", "Rigid map 12*12", "Soft map 16*16", "Soft spherical map 11*11", "Linear model 10*10", "Detailed map 25*25", "3D map 6*6*6", and "Fractal growth". A yellow arrow points from the "Rigid map 12*12" option to the "See It!" button.
- Visualization Area (Center):** A scatter plot showing data points represented by yellow squares, green circles, and red triangles. A vertical line is drawn through the plot, and a horizontal arrow points to the right. The plot is labeled "iris1" at the bottom left.

Two callout boxes provide instructions:

After creating dataset (or loading saved dataset) you can create **elastic map**.
First, select the dataset in Object Manager Panel.

Then choose appropriate map type. For the first preliminary visualization, type "Rigid 12*12" can be recommended.
Then click "See It!" button.

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Left click on this button allows to set **shift**, **zoom** or **rotate** to the initial state. The results depends on which button is down on the **Map manipulation** panel.

Right-click on this button allows to change background color of the picture.

You can manipulate the picture of data using these 3 buttons and spinedit.

When **Rotate** button is down, you can rotate map by clicking on the picture, holding the mouse left button pushed and moving the mouse.

Analogously, you can **shift** the map.

Changing value of **Zoom** spinedit, you can zoom the map.

Resulting constructed Manifold is displayed on the Map Panel.

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The screenshot displays the VidaExpert software interface. The main window shows a 3D visualization of a dataset with green circles, red triangles, and yellow squares scattered across a red grid. A yellow arrow points from a text box to the 'Datasets' section in the 'Data' tree on the right. Another yellow arrow points from a text box to the 'Parameters of drawing' section in the right-hand panel.

Click on **Datasets section to change parameters of displaying the dataset.**

**Choose and specify 3D space for displaying the dataset.
Specify which elements of the picture need to be displayed.**

Right-hand panel configuration:

- Datapoints
 - Views
 - On coordinate plane**
 - On principal components
 - In internal coordinates
 - Choosing axes
 - Axis 1: N1
 - Axis 2: N2
 - Axis 3: N3
 - Parameters:
 - Projecting type: In closest point
 - View: Orthogonal
 - Datapoints as timeseries
 - Node size
 - Parameters of drawing
 - Datas
 - Net nodes
 - Net lines
 - Colorings
 - Selections
 - Axis X
 - Axis Y
 - Axis Z
 - Not draw all

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Click on the **Coloring** section to change parameters of the map's coloring.

Click on the **Colorings** checkbox to start displaying coloring.
Choose appropriate coloring type. For example, by **Field** value.

The interface shows a map with a color gradient from blue to red, overlaid with a grid. Data points are represented by yellow squares, red triangles, and green circles. The right-hand panel includes a 'Colorings' section with a 'Fields' list (N1, N2, N3, N4), 'Densities', and 'Linear functions'. Below this are 'Parameters' for Smoothness (1), Corr. radius (1), and Relief (0). The 'Parameters of coloring' section includes a 'Palette' set to 'Continuous', a 'Color scheme' set to 'Color', and a 'Tints number' set to 5. A color legend at the bottom right shows a gradient from blue to red with numerical markers at 20, 40, 60, 80, and 100.

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Smoothness value can make discrete coloring more smooth. Be careful, smoothing can take a lot of time.

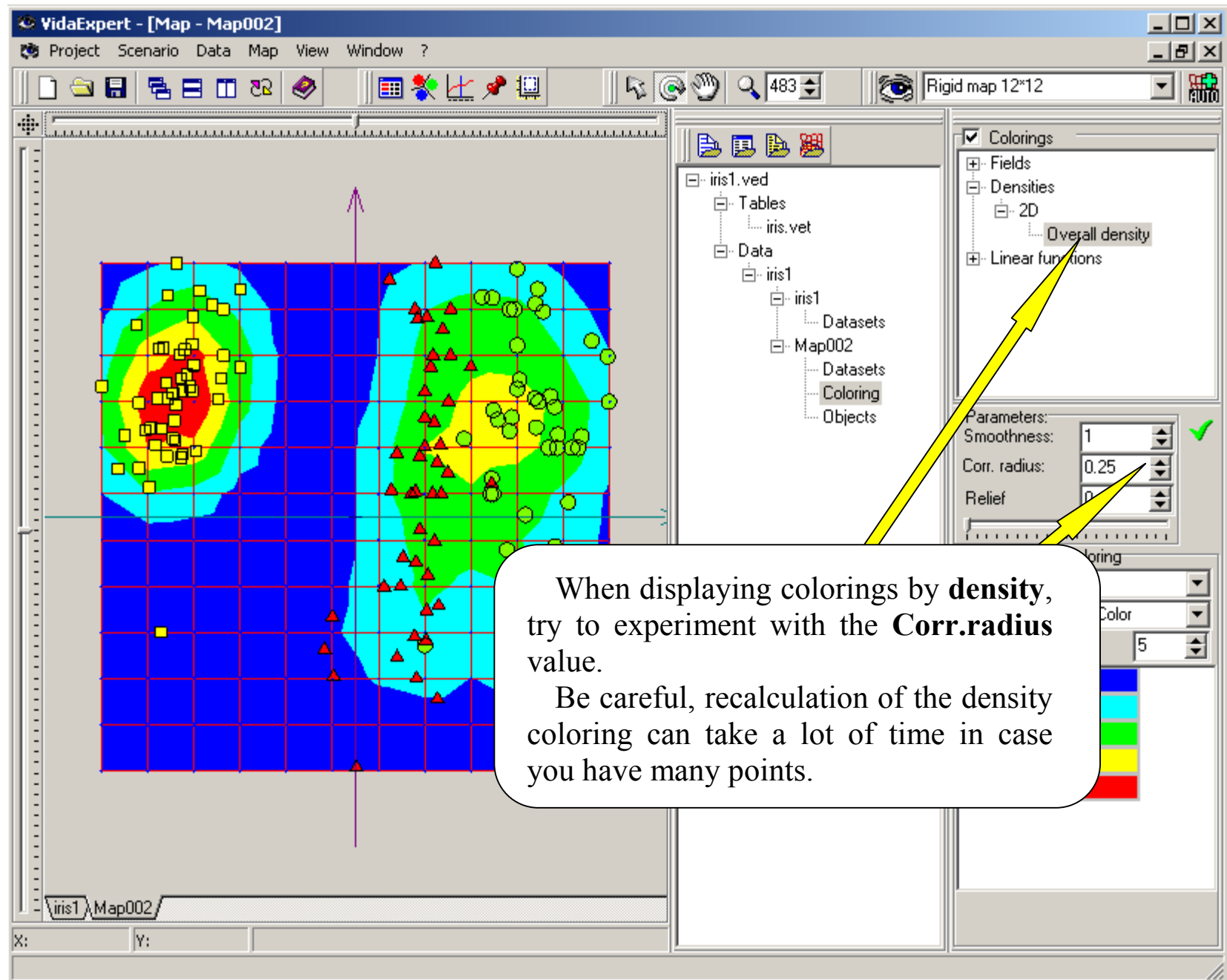
Make experiments with parameters of coloring.
For example, you can choose **Discrete** palette.
For colorings by field values it is possible to make the coloring relief and to evaluate how close the map approximate datapoints by this coordinate.

Parameters:
Smoothness: 1 ✓
Corr. radius: 1
Relief: 28

Parameters of coloring
Palette: Discrete
Color scheme: Color
Tints number: 5

20	Blue
40	Cyan
60	Green
80	Yellow
100	Red

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The screenshot shows the VidaExpert software interface. The main window displays a 3D map visualization of the Iris dataset. The map shows data points as colored shapes (squares, triangles, circles) on a blue background. A semi-transparent surface is overlaid on the data. A tooltip '7.2/3.6/Iris-virginica' is visible over a data point. The interface includes a menu bar (Project, Scenario, Data, Map, View, Window, ?), a toolbar, a file explorer on the right, and a 'Marks' panel with checkboxes for N1, N2, N3, N4, and IRIS-SETOS. A callout box provides instructions on how to interact with the 'Objects' section.

Click on the **Objects** section to change some properties of working with datapoints.

You can specify the content of the sign which is displayed when you move mouse over datapoint.

You can specify how **selected** datapoints will look.

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VidaExpert - [Map - Map002]

Project Scenario Data Map View Window ?

Rigid map 12*12

iris1.ved

- Tables
 - iris.ved
- Data
 - iris1
 - iris1
 - Datasets
 - Map002
 - Datasets
 - Coloring
 - Object

Datapoints

Views

- On coordinate plane
- On principal components
- In internal coordinates

Choosing axes

Axis 1: 1

Axis 2: 2

Axis 3: 3

Parameters:

Projecting type:

View:

Datapoints as timeseries

Parameters of drawing

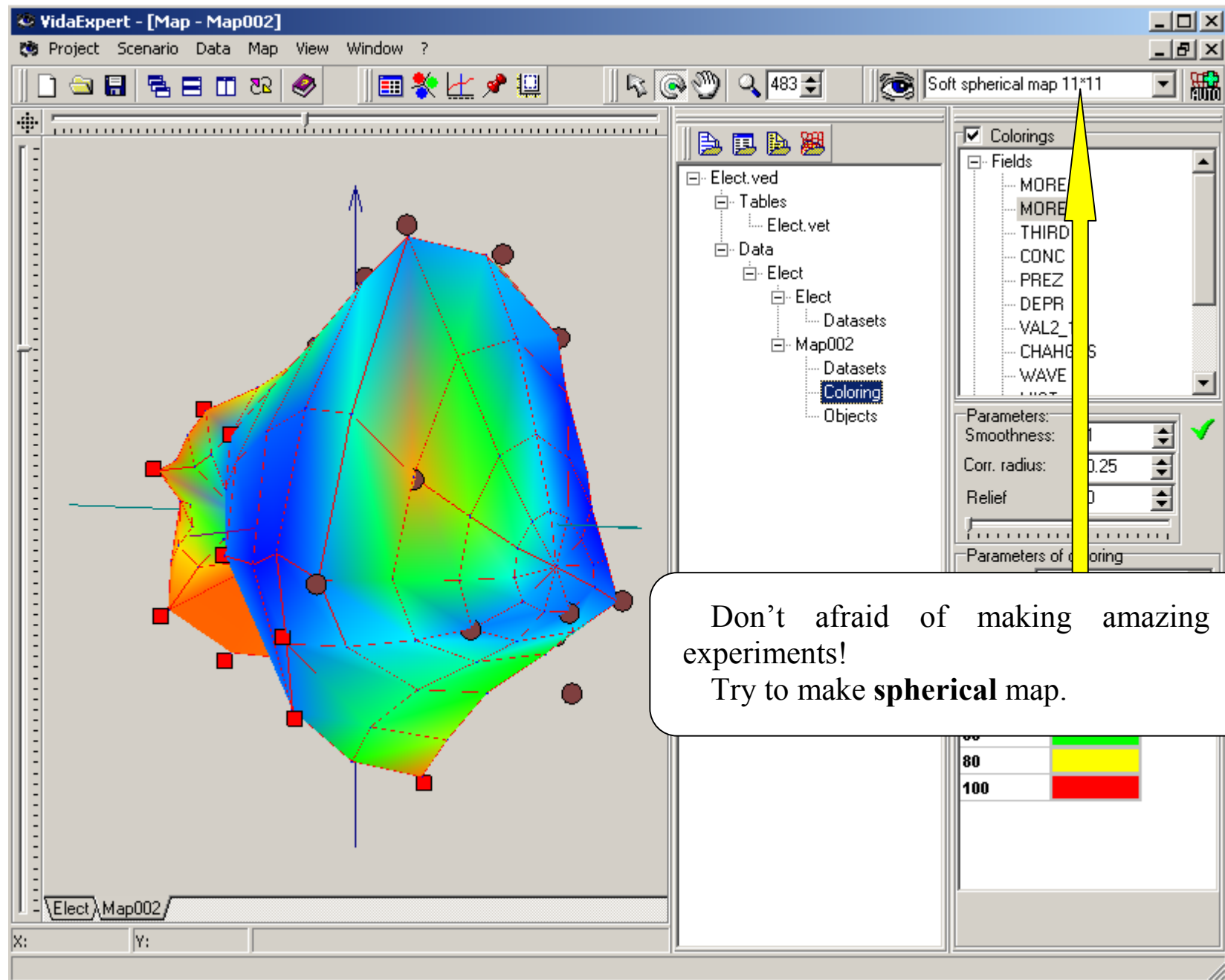
- Data
- Net nodes
- Net lines
- Colorings
- Selections
- Axis X
- Axis Y
- Axis Z
- Not draw all

X: Y:

iris1 Map002

You can continue studying your map in different spaces.

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The screenshot displays the VidaExpert software interface. The main window is titled "VidaExpert - [Map - Map002]". The menu bar includes "Project", "Scenario", "Data", "Map", "View", and "Window". The "Map" menu is open, showing options: "Add", "Delete", "Properties" (with shortcut Shift+M), "Initialize", "Autosetting" (with shortcut Ctrl+Alt+M), "Adjust" (with shortcut F9), "Interrupt", "Save map" (with shortcut Ctrl+M), "Load map" (with shortcut Alt+M), "Map analysis", and "Experiments". A blue arrow points from the "Save map" option to a text box. Another blue arrow points from the "Elect.ved" file in the "Elect.ved" folder of the "Data" tree to the same text box. The main map area shows two circular maps on a yellow background. The left map has a dark gray center with red circles, and the right map has a light gray center with red squares. The "Colorings" panel on the right shows a tree structure with "Fields" containing "MORE1", "MORE50", "THIRD", and "CONS". Below this, the "Parameters of coloring" section shows "Relief" set to 0, "Palette" set to "Discrete", "Color scheme" set to "Gray", and "Tints number" set to 5. A color scale legend is visible with values 20, 40, 60, 80, and 100.

In the end of work you can save your **map**. The file will have **vem** extension and can be loaded using **Load map** button and menu item.