

## 3. Using IRISnet

The **IRISnet** menu provides a top-level graphical view of the workstations on an IRIS network. It also provides access to many functions of IRIS such as starting and stopping the IRIS server and client menus as well as accessing IRIS Utilities. From **IRISnet**, you can access nearly every IRIS feature.

### Topics in this Chapter:

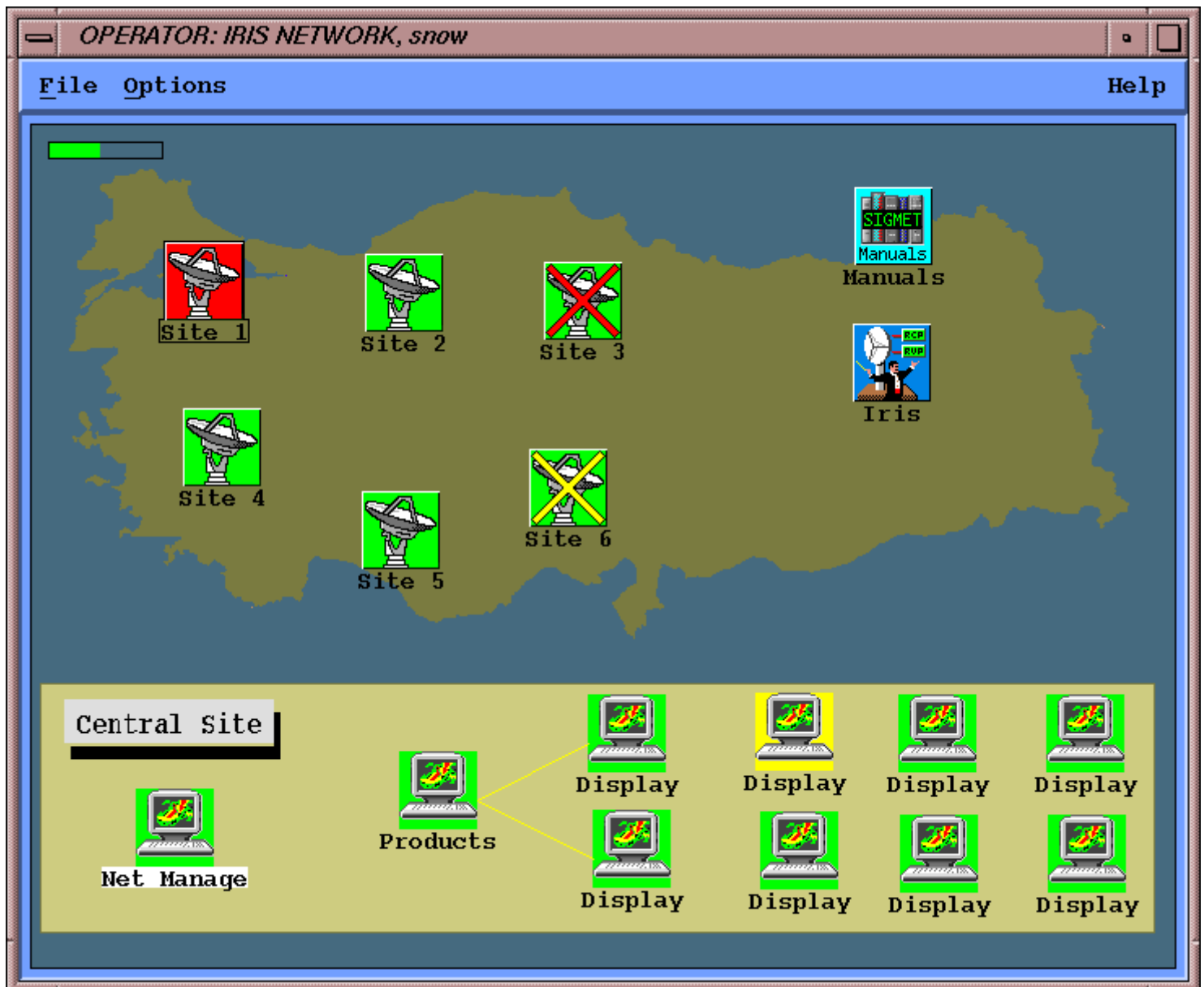
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## 3.1 Starting IRISnet

The IRISnet menu provides a graphical status monitoring and user interface into all IRIS features on a network. When you are logged in as 'operator' or 'observer' to a computer where IRIS has been installed, there is an IRISnet icon at the main menubar of your display. If the settings have been changed, simply type 'irisnet' on a terminal window.



## 3.2 Interpreting IRISnet Status

The menu shows a graphical representation of the radar network. The example is for a network architecture that has 6 radar sites and a central site with 8 displays, an analysis computer (named Products) and a Net Manager. The screen shot is from the net manager's computer. Where you are sitting is indicated by the white highlight around the node name. It is important to remember where you are sitting in the network.

The status will be re-checked automatically every 10 seconds. You can monitor the update cycle from the bar in upper left corner. If you want an immediate update, click **Options->Update**.

### Node Icons Symbols and Color Status Indication

There are two types of node icons in IRISnet:

- **Radar Sites**— these nodes are workstations that are running either IRIS/Radar software. These nodes have signal processors that collect data from the radar. In the case of an active IRIS control system, these nodes will also have a radar control processor (RCP).
- **Analysis/Display Sites**— these nodes are workstations that are running either IRIS/Analysis or IRIS/Display software.

Each network node is assigned a color to indicate its status (like traffic lights):

- **Green** indicates that IRIS is running on the node.
- **Yellow** indicates that IRIS is not running on the node. This includes the case of the node turned off or disconnected from the network.
- **Red** indicates that the node is misconfigured with an invalid hostname or the network is misconfigured so that the host can not be reached.

On HP-UX workstations and Linux workstations before version RHEL3, the case of the node turned off was displayed as red.

Each green IRIS site node can show two types of fault alarms:

- **Red cross** indicates a critical error, such as Radar process turned off or BITE fault.
- **Yellow cross** indicates a non-critical error.

Critical and non critical faults are detailed in the Radar Status Menu of each system.

### Network Connection Lines and Color Status Indication

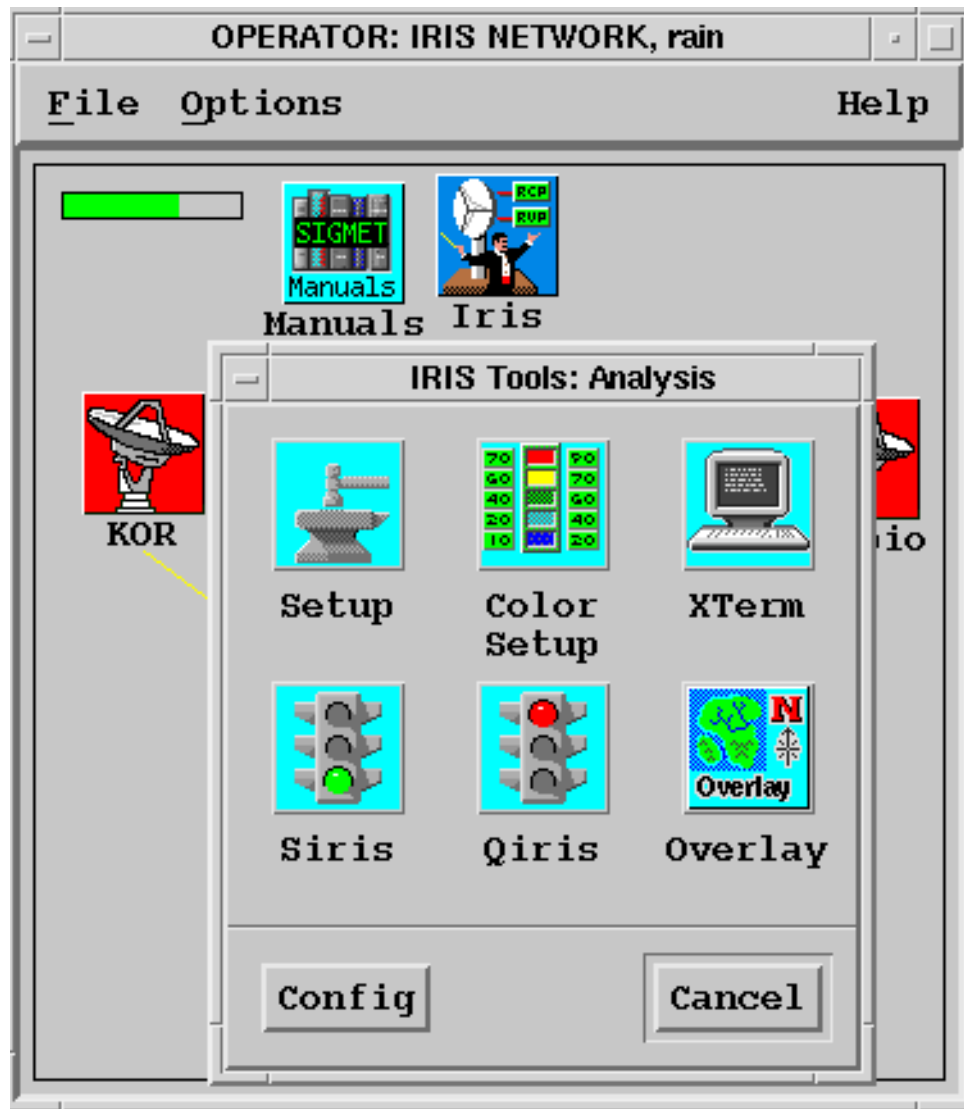
Each node may have one or more network connections to the various other nodes. These are indicated by lines that are color-coded to indicate status:

- **Green** indicates that the communication between the nodes is OK.
- **Red** indicates problems. There could be a problem with the line or with the node.
- **Yellow** indicates that the communication line cannot be sensed from where you are sitting. This depends on the details of how communications are routed through various nodes. In the example figure, the IRISnet menu is being run from the “Net Manager” workstation (indicated by the white highlight around the text “Net manage”). The line connection “Products” to “Display” is shown as yellow.

### 3.3 Launching IRIS Applications from IRISnet

IRISnet provides a convenient way to launch applications either on your workstation or remotely over the network. These are described below.

#### Launching the IRIS Client Menus and Manuals



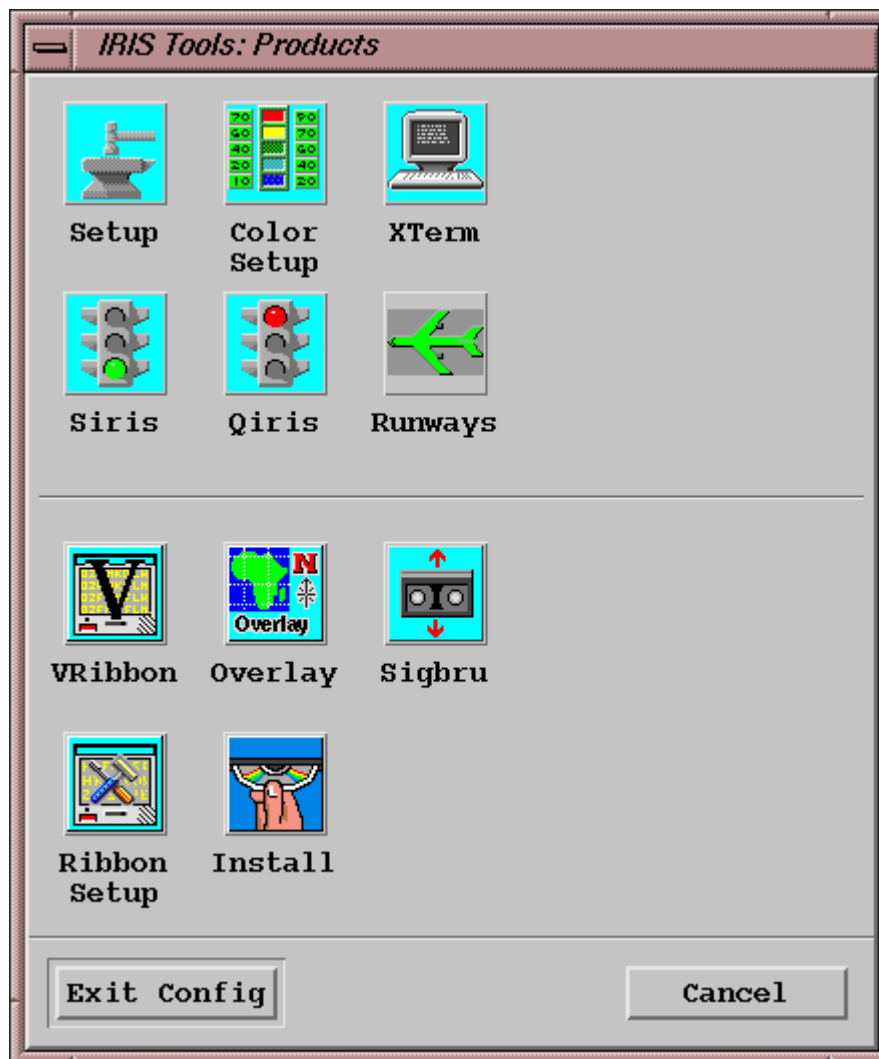
To start the IRIS Client Menus, simply double-click the icon labelled “Iris” (the radar conductor). These menus run locally on your workstation and allow you to connect to any workstation on the network. These menus are described in detail in this manual, which you can also read online by double-clicking the icon labelled “manuals”.

## IRIS Tools Window for Easy Remote System Access

Double click on a network node icon to pop-up the IRIS tools menu for that node as shown in the example above. This provides convenient remote access to the major IRIS functions:

- **Setup**– the major configuration utility in IRIS (see *IRIS Utilities Manual*).
- **Color Setup**– to configure the IRIS color scales (see *IRIS Utilities Manual*).
- **Siris and qiris**– to start and stop the main IRIS server program.
- **Utilities**– to start the graphical utilities menu (see *IRIS Utilities Manual*).
- **Overlay** – to edit your background maps (see *IRIS Utilities Manual*).
- **Real-time Display** – to see an instant radar display.
- **Xterm**– starts a remote “sigterm” X-terminal. This terminal knows about the IRIS profile and there is no need to type the “export DISPLAY” command to run an application so that the display appears on your workstation– sigterm does this automatically.
- **Sigaudio** – to control the Iris sound features
- **Install** – to copy IRIS software from one node to another.
- **Sigbru** – to perform tape backup/restore operations.
- **VRibbon** – for optional IRIS/TDWR Option (see *Appendix E*).
- **Runways** – for optional IRIS/TDWR Option (see *Appendix E*).
- **Ribbon setup** – for optional IRIS/TDWR Option (see *Appendix E*).

## Configuring the tools



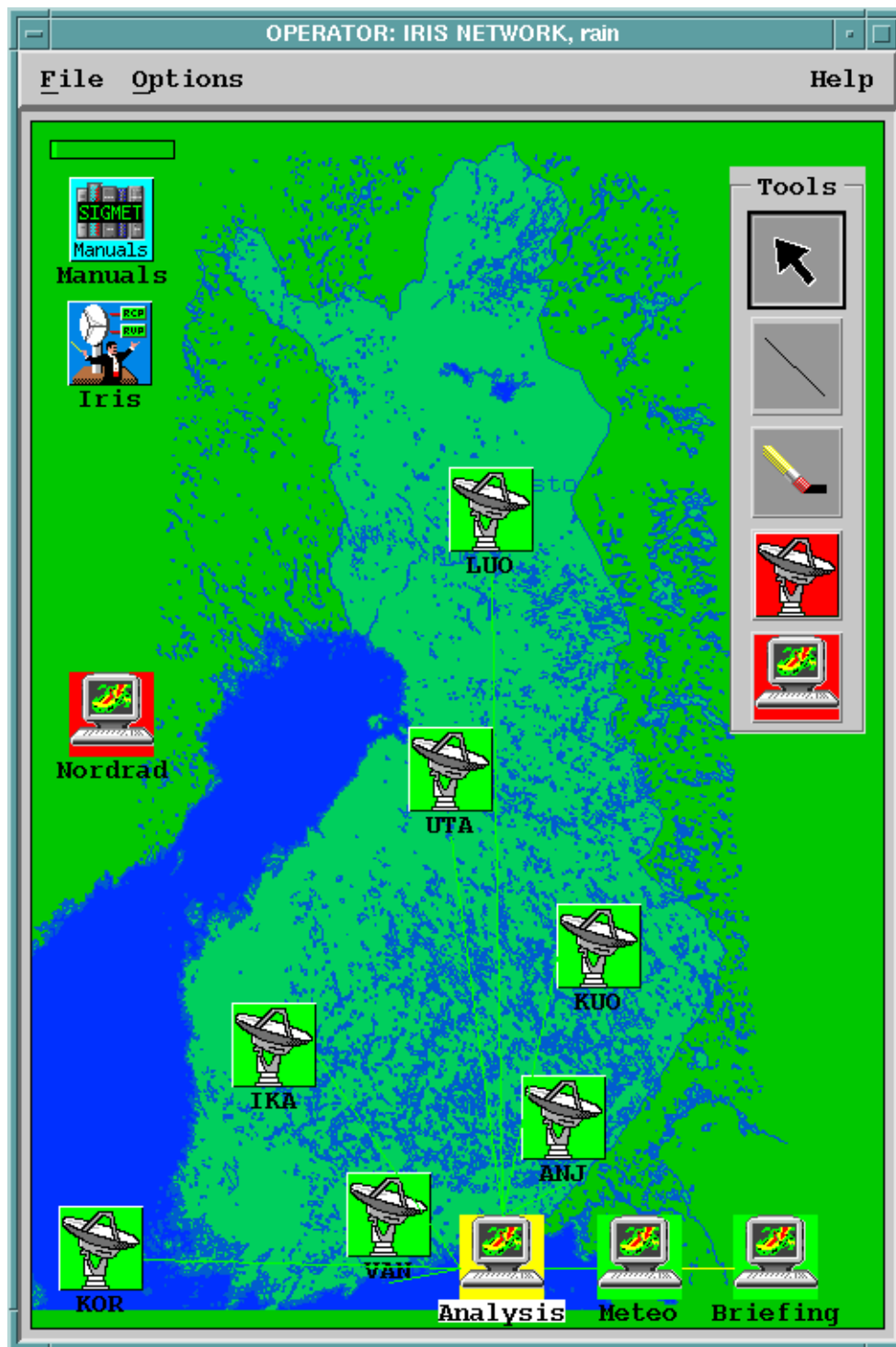
In the tools menu, click “Config” to see a full list of the tools. The top part shows the active tools selected for the site, while the bottom part shows inactive tools (i.e., not selected). If you need one of the inactive tools, simply select it by clicking and it will move up to the active portion of the tools menu. You can de-select a tool by clicking it to move it down to the inactive tools.

## **Status menu**

When you launch an application, you will often get a Status menu to show you the progress of the application. For example, when you launch **siris**, the Status menu will give you all of the messages associated with starting the IRIS software. You can cancel the status menu at any time by clicking the **Cancel** button. This will not effect the application that you started. If you want to see the Status menu to review something, you can click **Options→Status Menu**. If it is blank, then there are no status messages yet.



## 3.4 IRISnet Drawing Tools





**You must have operator privilege to change the IRISnet menu.**

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IRISnet has drawing tools so that you can easily draw your network block diagram and save it. First, you should collect information from your system manager concerning the names of network nodes and what nodes are running IRIS, etc.

### Starting the drawing tools

To select the drawing tools click **Options→Tools**. The **left** or **right** determines if the tool bar is displayed on the left side or the right side of IRISnet so that you don't cover a section where you want to draw. An example is shown in the figure above with tools placed to the right.

### Adding new nodes

To add a node, click the tool icon for either a radar site icon or an analysis/display site icon. Now move your cursor (which has changed to a ghost of the icon) into the menu and click to plant the icon. You can click and drag an icon to position it (dragging is only available if the tool bar is displayed).

### Naming and Re-Naming Network Nodes

The screenshot shows a 'Server' dialog box. The title bar is dark blue with a minus button on the left and the word 'Server' in white. The main area has a light blue background. It contains two text input fields: 'Hostname' with the value 'cloud' and 'Alias Name' with the value 'products'. At the bottom, there are 'OK' and 'Cancel' buttons. The 'OK' button is highlighted with a red rectangular border.

To start naming, set the Tools off. To name a node, double-click on the node name field at the bottom of the icon. The menu labelled “Server” will appear as shown above. The “Hostname” should be the name that is recognized by the network (as assigned by your network manager). The “Alias Name” is anything the name that will appear on the icon in IRISnet.



**We recommend that you set the Alias Name to be something logical like a radar location or a workstation function. It is best if the host name is the same. Note that you can alias hostnames as well in the Unix network configuration. Check with your network manager if you want to alias an un-friendly hostname such as xnrf0327 (this is almost as bad as an IP address) to something more recognizable such as BOS\_Radar.**

## Adding Network Link Lines

To connect the network nodes, click on the line drawing tool and then click on a node attachment point. There are four attachment points on a node icon— one each centered on each side. Next drag the line over to the attachment point on another icon and release the mouse. If you miss you will need to re-click the line tool and try again.

## Erasing Mistakes

If you make a mistake or simply want to remove a node or a line, click the eraser tool and then click the object that you want to delete. When you are in erase mode, the cursor shape show a universally recognized warning symbol to caution you that the next click of the mouse will erase the nearest object.

## Shifting Node Positions (rubber-banding)

Another editing feature is that after you have made connections among the various nodes, you can still move things around. The node lines will “rubber-band”.

## Save Your Work Periodically

As with any drawing utility, it is always good practice to click **File→Save** periodically so that you save your progress.

## Using a background image

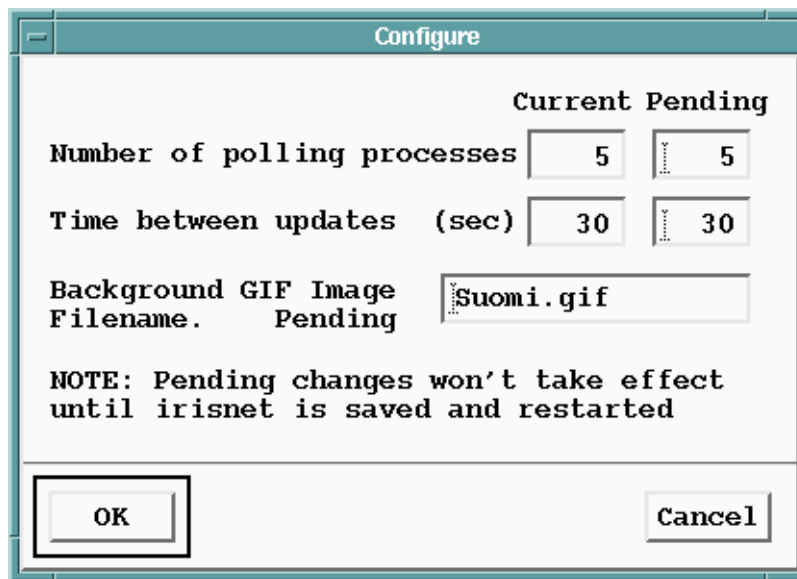
IRIS provides you tools to tailor your control display with a background image. This is why the **overlay** utility (see *IRIS Utilities manual*) has a Save as .gif-option.

- *Preparing the background:* For background image, edit a pretty map with the **overlay** utility. Save it as a gif. Or, select another GIF/image, e.g., a photograph of your headquarters (so you can show at which floor each computer is located). The **overlay** utility stores the gif automatically in the /usr/sigmet/config/images

directory. You might want to edit the gif image with graphic tools such as xv or xpaint. It sometimes is a good idea to draw a grey box to represent the headquarters, or other site with several computers.

- *Importing image to IRISnet:* Select the gif file you want to use as IRISnet background, from the IRISnet -> options -> Config menu. Note that the image isn't shown before you save and restart irisnet. So save and restart.
- *Setting the icons:* Then move the radar and computer icons around the map so that each site is approximately at its geographical location. Note, that you can also monitor other computers in your network, even if they are not running IRIS. They are shown as red or yellow, indicating if they are connected to network.

## 3.5 IRISnet Options→Config



At the Options → Configuration menu you can change the polling scheme of your IRISnet. This is something you typically don't have to do. You mainly need this menu to set the background image for your IRISnet.

### Number of polling processes:

This is the number of background processes that wakeup after a specified number of seconds (Time between updates) and check the state of the IRIS's that are displayed in irisnet. If an IRIS computer is taken out of the IRIS network, but IRISnet still shows the computer, the polling process that was checking the removed computer will hang for a 2 minute timeout. This leaves one less polling process for checking IRIS status.

The min number of polling processes is 2, and the max is 15. Typical is 5. The key thing to remember here is, once an iris computer is removed from the iris network, but the computer is still shown in IRISnet, a polling process will hang for 2 minutes so it is possible to "hang" **irisnet** in the event that the entire network goes down and all polling processes are in timeout.

### Time between updates (sec):

This is the time in seconds the polling processes will sleep. Once they wakeup they check the status of the IRIS's in the irisnet and then sleep again. The min time between updates in seconds is 15, and the max is 120. Typical is 30 seconds.

### **Background GIF Image Filename:**

This is a gif image that can be used for **irisnet**'s background. The gif image **MUST** be located in directory `${IRIS_CONFIG}overlay`. The Background GIF Image Filename must be the exact name of the image in the directory `${IRIS_CONFIG}overlay`. If filename is left blank, then no image will be displayed.

**NOTE: All values changed will be pending. Therefore the user must save, exit and then restart irisnet before they are valid.**