



## Overview

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To visualize a network topology in WAE Design, you need a basic understanding of layouts and templates, and how they relate to plan files. Once you understand these concepts, you can proceed to visualize the network and save a plan file as a template for use in WAE Live or WAE Design Archive, or simply save it as a plan file for simulation purposes in WAE Design. This chapter describes these concepts. The guide itself includes the following topics.

- [Visualizing a WAE Network](#)—Describes how to affect the visualization of a network, including such topics as how to assign sites to nodes, how to modify visual attributes of objects, and how to change the canvas (background) of the weathermap (WAE Live) or network plot (WAE Design). It also explains the use of traffic utilization colors, their defaults, and how to change these colors.
- [Using Layouts](#)—Explains the basic differences between Weathermap and Design layouts and how they are typically used, as well as how to create, edit, and view layouts.
- [Plan Files and Templates](#)—Describes how to save plan files and templates locally and remotely, how to copy visual elements and objects from a template, and how to modify the plan file database using the WAE Design GUI.
- [Access Remote WAE Live](#)—Describes how to open plan files and templates from a remote WAE Live server, as well as how to save templates to a remote WAE Live server.
- [Access Remote WAE Design Archive](#)—Describes how to open/save plan files and templates from/to a remote WAE Design Archive server.
- [Access Remote WAE Automation Server](#)—Describes how to open/save plan files from/to a remote WAE Automation server, as well as how to deploy plan files and patch files to the network.

## Plan Files and Templates

The unit of data storage that is displayed in the WAE Live or WAE Design Archive weathermap and in the WAE Design network plot is the plan file. Each plan file consists of a series of tables that describe network characteristics, including network topology, traffic, service classes, and routing protocols. Note that what is visible in the web applications and the WAE Design GUI differs since the former represents collected data from an operating network, while the latter can additionally represent simulated networks and network state.

These plans files are typically created as a result of the process that discovers topology and traffic. They can, however, be created using CLI tools or the WAE Design GUI, which can be useful when designing greenfield networks.

- **Local plan files**—Reside on and are accessed from a single local device, such as a laptop, and are typically used for simulation purposes in WAE Design.

- **Remote plan files**—For the WAE Live and WAE Design Archive applications, plan files are stored in an archive that is typically populated with plan files created through the discovery process. The WAE Automation server contains a working plan file (of the current network), and potentially contains plan files in staging areas.
- **Templates**—Each archive contains a “pattern” plan file called a template by which all the plan files are modeled for visualization in the web application. Templates usually contain visual elements that dictate how the objects appear in the network and the canvas (background) behind it. Templates might also contains objects that are not discoverable but are of use in network simulations, for example physical circuit routes. For more detailed information about templates, see the [Plan Files and Templates](#) chapter.

**Note**

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The WAE Automation server does not contain templates as defined here. Also note that while the Coordinated Maintenance uses templates, the application does so only for the purpose of having current topology (not for visualization purposes).

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## Layouts and Visualization

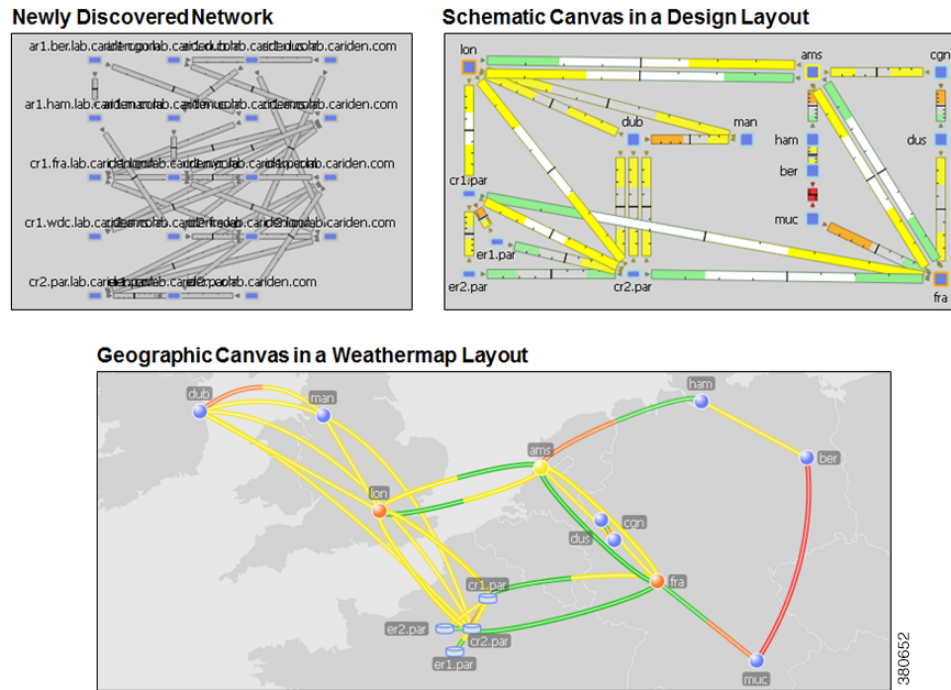
The manner in which plan files are laid out to visualize the network is called a layout. Each plan has a default layout. The WAE Design GUI provides numerous tools for re-arranging the topology and affecting the appearance of objects, both for newly discovered networks and for greenfield designs. With these tools you can create multiple layouts per plan file, each with its own visualization. For example, layouts can have schematic or geographic site canvases, or show specific sections of the network.

All layouts are one of two types: either Weathermap (primarily for preparing layout templates) or Design (for planning and design work in WAE Design). Unless otherwise noted, the procedures described in this guide apply to both Weathermap and Design layouts.

Layer 3 visualization is supported in WAE Design, WAE Design Archive, and WAE Live. Layer 1 visualization is supported in WAE Design. Most of the visualization tools are available for both Layer 3 and Layer 1.

[Figure 1-1](#) shows an example of a newly discovered network, a Design layout with a schematic canvas, and a Weathermap layout with a geographic canvas.

**Figure 1-1 Example Network Before and After Modifying the Layout**



## Related Topics

- *WAE Design Use Guide*
- *WAE Design Integration and Development Guide*
- *WAE Live Administration Guide*
- *WAE Design Archive User and Administration Guide*
- *WAE Plan Table Schema and CLI Reference*

