

# Layout Design Scale and Group Scales

When you design a page layout for printing in the TNTmips Display process (or TNTview / TNTedit), you set the overall map scale for the layout in the Layout Settings window. The Layout tabbed panel in this window (see illustration below right) includes a Design Scale field in which you provide the map scale for the layout. This panel also includes controls for setting the media size, orientation, and margins for the page layout (see the Technical Guide entitled *Printing: Layout Settings and Print Setup*). The Design Scale field shows the scale as a ratio value (e.g. 1:36000) but allows you to enter either the full ratio or just the denominator (scale number).

When you add a spatial group to the page layout, its default group map scale is automatically set to match the layout's Design Scale. However, all spatial groups in the layout do not have to have the same map scale. You can set different map scales for separate groups containing small location (index) maps or enlarged maps of small parts of the main map data.

You can set the map scale for a particular group on the Placement tabbed panel of its Group Settings window (see the illustrations below and the TechGuide entitled *Spatial Display: Settings for Groups in Layouts*). This panel includes a Group

Scale menu that is initially set to Match Layout Design Scale. To set a different scale for the group, choose either Constant or Vary with Layout Scale from the menu (see below). You can then enter the desired scale in the Group Scale field on this panel. For a small index map you can set a smaller scale (larger scale number) for the group, while for an enlarged detail group you would set a larger scale (smaller scale number). The sample layout in the illustration below includes both an index map and a detail group with scales differing from the layout Design Scale. If you have changed the group scale, you can easily reset it to the Design Scale if desired by reselecting Match Layout Design Scale from the Group Scale menu.

The options on the Group Scale menu let you set how the group scale is handled if you change the layout's Design Scale. If you choose the option *Vary with Layout Scale* from the menu next to the Group Scale field, the group scale changes proportionally to the Design Scale. The *Constant* option maintains a fixed map scale for the group if the Design scale is changed. Layouts with differently-scaled groups set to vary with layout scale will display correctly in legacy versions of TNTmips (prior to TNTmips 2014). Rescaled groups using the Constant option will not display at the proper scale in legacy versions of TNTmips.

The screenshot displays a map layout titled "Nebraska Panhandle Historic Change in Groundwater Level through Spring 2010". It features three map groups:

- Main Map Group:** A large map of the Nebraska Panhandle with a scale of 1:750,000. A red box highlights a specific area in Scotts Bluff County, which is magnified in the detail map.
- Index Map Group:** A small map of the entire Nebraska Panhandle with a scale of 1:1,500,000. A red box highlights the location of the main map.
- Detail Map Group:** A magnified view of Scotts Bluff County with a scale of 1:750,000.

Three windows are open to show settings:

- Layout Settings:** Shows the "Design Scale" set to 1:1500000. Other settings include "US Letter" size, "Portrait" orientation, and margins of 0.50 inches.
- Main Map Group Settings:** Shows the "Group Scale" set to "Match Layout Design Scale" (1:1500000).
- Index Map Group Settings:** Shows the "Group Scale" set to "Constant" with a value of 1:15000000.
- Detail Map Group Settings:** Shows the "Group Scale" set to "Constant" with a value of 1:750000.

A legend for the main map shows groundwater level changes in meters, ranging from -10 to -20 (orange) to < -70 (purple), with a "Fall or Rise, meters" category.

This small index map group has been set to a map scale 10 times smaller (1:15,000,000) than the layout Design Scale.

This detail map group has been set to a map scale (1:750,000) that is half of the layout Design Scale.