

NWID Tutorial

Page Dimensions, Layouts & Object Geometry

Working with Canvas Modes, Scale Modes, Anchors, and Export

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1. Understanding Page Dimensions

Every NWID page has a canvas — a rectangular workspace where you place controls. The canvas width and height define the design-time dimensions of your interface. These are set in the Canvas Properties panel (click empty canvas area, or click the page tab).

Setting Dimensions

Step 1: Click on the empty canvas (no controls selected). The Properties panel switches to Canvas Properties.

Step 2: Find the Dimensions group. Enter your desired Width and Height in pixels. Range: 100 to 3840 wide, 100 to 2160 tall.

Note: When a page has a Master Page assigned, its dimensions are inherited from the master and cannot be changed independently.

2. Canvas Positioning Modes

The canvas positioning mode determines how your interface is placed inside the browser window at runtime. There are three modes, selected in the Dimensions group of Canvas Properties.

Center in Browser (Default)

Your layout renders at its exact designed size and is centered horizontally and vertically in the browser window. The surround color fills the space around it. Controls are never resized — what you design is exactly what you get.

- **Best for:** fixed-size applications, dialogs, kiosk-style interfaces
- **Controls:** stay at their exact design positions and sizes

Fill Browser

The canvas stretches to fill the entire browser area. Each control is individually repositioned and resized based on its Scale Mode setting (see Section 3). This is the mode that makes the Scale Mode dropdown meaningful.

- **Best for:** full-screen applications, dashboards, responsive layouts
- **Controls:** each one scales according to its own Scale Mode setting

Custom Position

The canvas renders at its designed size but placed at a specific Left and Top pixel coordinate within the browser window. Useful for floating panels, tool windows, or multi-panel layouts.

- **Best for:** tool panels, sub-windows, multi-area UIs
- **Controls:** stay at exact design positions (no scaling)

Mode	Canvas Size	Control Scaling	When to Use
Center	Fixed (design size)	None — pixel-perfect	Dialogs, kiosk apps
Fill Browser	Fills viewport	Per Scale Mode setting	Dashboards, full-screen
Custom Position	Fixed at Left, Top	None — pixel-perfect	Floating panels

3. Scale Modes: How Controls Respond to Resize

When the canvas mode is Fill Browser, each control has its own Scale Mode setting that determines how it responds when the browser window is resized. This is the dropdown labeled "Scale Mode" in each control's Properties panel.

Proportional (Default)

The control's position, size, and font size all scale proportionally with the viewport. If the browser is 150% of the design size, the control is 150% bigger. The aspect ratio is preserved using the smaller of the X and Y scale factors for fonts.

- **Position:** $x * \text{scaleX}$, $y * \text{scaleY}$
- **Size:** $w * \text{scaleX}$, $h * \text{scaleY}$
- **Fonts:** scaled by $\min(\text{scaleX}, \text{scaleY})$ to prevent distortion
- **Best for:** most controls — buttons, labels, inputs, images

Anchor

The control docks to specific edges of the canvas using anchor flags (Left, Right, Top, Bottom). Instead of scaling, it maintains fixed distances from the anchored edges. See Section 4 for the full anchor system.

- No scaling — position shifts and/or size stretches based on anchor flags
- **Fonts:** not scaled (stay at design size)
- **Best for:** toolbars, status bars, sidebars, headers, footers

Fixed

The control stays at its exact design coordinates and size regardless of browser resize. The browser window may grow or shrink around it, but the control doesn't move or resize.

- **Position:** design x , y — never changes
- **Size:** design w , h — never changes
- **Fonts:** not scaled
- **Best for:** overlay elements, logos, decorative elements that must stay put

Scale Mode	Position	Size	Fonts	Use Case
Proportional	Scales with viewport	Scales with viewport	Scales (min ratio)	General controls
Anchor	Docks to edges	Stretches or shifts	Fixed	Toolbars, sidebars
Fixed	Exact design coords	Exact design size	Fixed	Overlays, logos

4. Anchor Mode In Depth

When a control's Scale Mode is set to Anchor, the anchor grid becomes visible in the Properties panel. It shows four directional cells (Left, Right, Top, Bottom) and a center marker. Click a direction to toggle that anchor on or off.

How Anchors Work

Anchors define which edges of the canvas the control is "attached" to. When the canvas resizes, the control maintains its distance from anchored edges.

Anchor Config	Horizontal Behavior	Vertical Behavior
Left only (default)	x and width unchanged	—
Right only	Shifts right (maintains distance from right edge)	—
Left + Right	Stretches: x stays, width grows with canvas	—
Neither L nor R	x and width unchanged (fixed)	—
Top only (default)	—	y and height unchanged
Bottom only	—	Shifts down (maintains distance from bottom)
Top + Bottom	—	Stretches: y stays, height grows
Neither T nor B	—	y and height unchanged (fixed)

Anchor Presets

Click a preset button below the anchor grid to quickly set common configurations:

Preset	Anchors	Effect
TL	Left + Top	Stays in top-left corner (default behavior)
TR	Right + Top	Stays in top-right corner
BL	Left + Bottom	Stays in bottom-left corner
BR	Right + Bottom	Stays in bottom-right corner
SH	Left + Right + Top	Stretches horizontally, stays at top
SV	Left + Top + Bottom	Stretches vertically, stays at left
All	Left + Right + Top + Bottom	Stretches in all directions
None	No anchors	Fixed position (same as Fixed scale mode)

Note: Anchor indicators appear on selected controls in the designer canvas — e.g., a small "L+T" badge showing the active anchors.

5. Creating and Saving Layouts

Creating a New Layout

Step 1: Click File > New or press Ctrl+N

A fresh project opens with a single blank page at the default dimensions (1024 × 768).

Step 2: Set your canvas dimensions in Canvas Properties

Step 3: Choose your canvas positioning mode (Center, Fill, or Custom)

Step 4: Add controls from the palette and arrange them

Step 5: Set each control's Scale Mode as needed

Saving a Layout

Layouts are saved as .nwid files — plain JSON containing all pages, controls, canvas settings, themes, and control properties.

Step 1: Press Ctrl+S to open the Layout Manager, then use the Save panel to save your layout. In VNW: a save dialog appears. In browser mode: the file downloads automatically.

Opening a Saved Layout

Step 1: Open the Layout Manager via File > Layout Manager or Ctrl+O

Step 2: Select a saved .nwid file from the list

Step 3: Click Open to replace the current project, or Import to merge controls into the current page

Note: Import copies the first page's controls from the saved layout into your current page. IDs are automatically renamed if they collide with existing controls.

6. Exporting Your Layout

Export generates the files needed to run your NWID interface inside a VisualNEO Win publication.

Step 1: Click File > Export Runtime HTML or press F5

NWID generates two files:

File	Contents
runtime.html	Complete HTML/CSS/JS — your entire interface as a self-contained web page. Includes all controls, styles,
runtime_subs.txt	VNW subroutine stubs — one sub per control event, plus infrastructure subs (Initialize, NWID_OnMessage,

Wiring Into VNW

Step 1: Create a VNW publication with a Rectangle object

Step 2: In the Book Action (startup), call GoSub "Initialize"

Step 3: In the Initialize sub, ezEdgeCreate loads the WebView2 into the Rectangle

Step 4: Uncomment the ezEdgeGoTo line and point it at your runtime.html

Step 5: Paste the runtime_subs.txt content into VNW's Subroutine action

Step 6: Add your VNW logic inside each generated stub (below the "Your actions" line)

Your exported layout preserves all Scale Mode and anchor settings. If you used Fill Browser mode with anchor controls, they will resize correctly when the VNW window resizes.

7. Practical Examples

Example A: Fixed-Size Calculator (400 × 530)

- Canvas mode: Center in Browser
- All controls: Scale Mode = Proportional (default)
- Canvas dimensions: 400 × 530
- Result: calculator always renders at exact size, centered in the VNW window

Example B: Full-Screen Dashboard (1920 × 1080)

- Canvas mode: Fill Browser
- Top toolbar: Scale Mode = Anchor, anchors = Left + Right + Top (SH preset)
- Side panel: Scale Mode = Anchor, anchors = Left + Top + Bottom (SV preset)
- Main content area: Scale Mode = Anchor, anchors = All
- Logo in corner: Scale Mode = Fixed
- Chart widgets: Scale Mode = Proportional
- Result: toolbar stretches full width, sidebar stretches full height, main area fills remaining space, logo stays put, charts scale smoothly

Example C: Floating Tool Panel (300 × 400)

- Canvas mode: Custom Position, Left = 20, Top = 80
- All controls: Scale Mode = Proportional (default)
- Result: compact panel positioned at a specific spot in the VNW window

8. Quick Reference

Canvas Properties Location

Click empty canvas area (deselect all controls) to view Canvas Properties in the Properties panel.

Keyboard Shortcuts

Shortcut	Action
Ctrl+N	New layout
Ctrl+S	Layout Manager (save)
Ctrl+O	Layout Manager (open/import/delete)
F5	Export (generate runtime files)
F6	Preview runtime
Ctrl+Z / Ctrl+Y	Undo / Redo

Scale Mode Decision Tree

Use this to choose the right Scale Mode for each control:

Question	Answer	Scale Mode
Should this control resize with the window?	Yes, proportionally	Proportional
Should it stick to an edge or stretch?	Yes	Anchor
Should it stay exactly as designed?	Yes	Fixed
Is it a toolbar or status bar?	Yes	Anchor (SH preset)
Is it a sidebar?	Yes	Anchor (SV preset)
Is it a main content area?	Yes	Anchor (All preset)
Is it a floating overlay or logo?	Yes	Fixed

Remember: Scale Mode only takes effect when the canvas mode is Fill Browser. In Center and Custom Position modes, all controls stay at their exact design coordinates.