Common ZX Spectrum demo effects include: attribute-based color tricks, scrolling text, sinus-based animations, raster bars, and various software-driven 3D illusions. These effects exploit the Spectrum's limited graphics hardware to create visually striking animations. Below is a structured overview of the most widely used techniques, grounded in what appears across classic demos such as *Shock Megademo* and many productions in the ZX demoscene archives. ZX-Art bbb.retroscene.org

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🎨 Attribute & Color Effects

These are among the most iconic Spectrum visuals because the machine's **attribute clash** forces creativity.

- **Color cycling / flashing attributes** — Rapidly changing the 8×8 attribute blocks to simulate animation or glowing patterns.
- **Rainbow / raster bars** — Horizontal bars with shifting colors, often synchronized to music.
- **Color flood fills** — Entire screen or large regions changing color in rhythmic patterns.

📝 Text & Scroller Effects

Text is a staple of demoscene intros and megademos.

- **Horizontal scrollers** — Smooth or chunky scrolling text across the bottom or middle of the screen.
- **Vertical scrollers** — Less common but used in some demos.
- **Wavy / sinus scrollers** — Text following a sine wave path for a fluid, organic motion.
- **Multi-layer scrollers** — Two or more scrollers moving at different speeds.

🌀 Sinus & Pattern Animations

The Spectrum's CPU-driven graphics make math-based effects popular.

- **Plasma effects** — Color patterns generated from sine functions.
- **Wavy distortions** — Lines or images bending in sinusoidal motion.
- **Checkerboard distortions** — Animated grids that appear to ripple or rotate.

□ Block & Tile Animations

Because the Spectrum screen is memory-mapped in a quirky way, block-based effects are efficient.

- **Tile flipping / block rotation** — 8×8 tiles flipping or cycling to simulate motion.
- **Mosaic transitions** — Images dissolving or appearing through block-based patterns.

□ Fake 3D & Vector-Style Effects

Even without hardware acceleration, demos simulate 3D motion.

- **Starfields** — Moving points simulating flying through space.
- **Wireframe objects** — Rotating cubes, pyramids, or more complex shapes.
- **Perspective tunnels** — Expanding/contracting concentric shapes to mimic depth.
- **Rotozoomers** — Rotating and zooming patterns or images (seen in modern Spectrum demos). bbb.retroscene.org

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🖥️ Full-Screen & Timing-Based Tricks

Some demos synchronize visuals tightly with music or the refresh rate.

- **Split-screen effects** — Changing display parameters mid-frame for multiple visual zones.
- **Border effects** — Manipulating the Spectrum's border color rapidly for rhythmic flashes.
- **Full-screen wipes** — Screen-wide transitions synced to music, as seen in modern Next demos. retrobeachman.itch.io

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🎵 Audio-Reactive Visuals

Many demos sync graphics to AY-chip music.

- **Beat-synced flashes** — Colors or shapes pulsing with the soundtrack.
- **Waveform visualizers** — Bars or patterns representing audio amplitude.

📌 Summary Table

Effect Type	What It Looks Like	Why It's Common
Attribute tricks	Color cycling, raster bars	Works within Spectrum's color limitations
Scrollers	Smooth/wavy text	Low memory, high impact
Sinus patterns	Plasma, waves	CPU-friendly math effects
Fake 3D	Starfields, wireframes	Impressive despite hardware limits
Block animations	Tile flips, mosaics	Efficient with 8×8 attribute grid

Effect Type	What It Looks Like	Why It’s Common
Timing tricks	Border flashes, split screens	Exploits precise timing for flair

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If you want, I can also list **specific demos** that showcase each effect, or explain **how these effects are coded** on the Spectrum’s hardware.