

Sup-C DCMviewer

Help

Product	Sup-C DCMviewer, executable `sup-c_dcmviewer`
Version	2.0.0
Document	Help text of the program
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Manufacturer	Sup-C — www.sup-c.com
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For image review only — not a certified diagnostic workstation. This product is not a medical device.

Contents

Mouse tools and keys 3
New in version 2 3
What is supported 4
What is not supported 4

Help

This is the text of the Help window of the program (menu Settings → Help / About, or key F1), version 2.0.0.



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A standalone viewer for DICOM media (CD, DVD, USB) made by Sup-C. Nothing is installed and nothing is sent over the network: all processing happens in this computer's memory, and your source files are never changed. Place the program next to a DICOM folder, or use "Open folder…".

Mouse tools and keys

- Pick a tool in the toolbar — W/L (window/level: brightness/contrast), Pan or Zoom — then drag with the left mouse button on the image.
- The right or middle mouse button always pans, whatever tool is selected. Double-click an image to fit it to the viewport.
- Mouse wheel: next / previous image. Ctrl + wheel: zoom. Arrow keys ↑/↓, Page Up/Down, Home/End also move through the series.
- Keys: F fit · 1 = 1:1 (one image pixel per screen pixel) · R reset · I invert · O show/hide overlays · Tab show/hide the patient list · F1 this help · F11 full screen.
- Double-click a series in the patient list to show it: its images are spread over the best grid for their number (1 image → 1×1, 2 → 1×2, 4 → 2×2, many → 4×4). Double-click a study to show all its series, one per viewport.
- Drag a series from the list into a viewport to put it there. A grid never mixes studies: choosing something from another study replaces the whole grid.
- Layout button: choose any grid up to 4×4. Window/level, zoom, pan and invert apply to every viewport showing the same series; scrolling moves the tiled images together.
- Series holding a PDF, video, Structured Report or ECG show a button: the document is extracted or converted and opened with the program your computer uses for it.

New in version 2

- Hanging protocols (button Auto, key H): the layout is chosen from the DICOM metadata. CT: the largest axial series as 16 consecutive slices (4×4), scrollable; MR: series ordered T1, T2, FLAIR, DWI, ADC per plane; mammography: RCC LCC / RMLO LMLO back to back (mirrored when needed); CR/DX: PA next to lateral; ultrasound: images and cine loops grouped. The manual grid (1×1 to 4×4) stays available.
- Measure (menu in the toolbar): distance in mm, angle, rectangular and elliptical ROI with area, mean and standard deviation (HU for CT). Distances use the DICOM pixel spacing; a '~' marks sizes at detector level (projection radiography). Del removes the measurements of the image, Esc cancels one in progress. Measurements exist only in memory.
- MPR (button, CT / MR volumes with regular slice spacing): axial, coronal and sagittal views with linked crosshairs and a 3D view. Click or drag: move the crosshair · wheel: scroll · right-drag: window/level · middle-drag: pan · Ctrl+wheel: zoom · Esc: leave.
- 3D (button, same volumes as MPR): one large volume rendering. Drag: rotate · right-drag or Shift+drag: pan · wheel: zoom. The overlay toolbar has presets (Bone, Soft tissue, Skin, Vascular, Airways, MIP, MinIP), opacity, threshold, brightness, contrast, background and tint colour, Fit to volume and Reset view. The letters R L A P S I show the patient orientation. Switching between MPR and 3D reuses the volume.
- Radiation dose: when the active study has a readable Radiation Dose SR, a Dose icon appears at the right of the status bar; click it (choose a report if there are several) to open the dose report in your browser. The viewer never calculates doses or risks.
- CT window presets: keys 2 Brain · 3 Soft tissue · 4 Lung · 5 Bone. Key images (DICOM Key Object Selection) are marked 'KEY IMAGE' with ticks on the slice bar; key K or the ★ button jumps to the next one. Presentation state

graphics (GSPS: lines, circles, ellipses, text) are drawn on their images (Settings: on/off).

- Compare: the Compare menu shows the active series next to the best matching series of another study of the same patient. Cine: Space or ▶ plays multi-frame images. PNG: exports the current image or a montage of all viewports (pixel data only, you choose the location). Tags: the tag window has a search box.

What is supported

- Uncompressed images (Implicit and Explicit VR Little Endian, Explicit VR Big Endian, Deflated): CT, MR, CR/DX, mammography, ultrasound, 8/16/32-bit, signed and unsigned.
- JPEG Baseline and Extended (8-bit), JPEG Lossless, JPEG 2000 (lossless and lossy), RLE Lossless, and JPEG-LS (lossless and near-lossless, 2–16 bit, grayscale and colour). All built in, in Rust.
- Grayscale (MONOCHROME1/2), RGB, YBR and PALETTE COLOR images (also segmented palettes), multi-frame and enhanced multi-frame objects.
- Rescale slope/intercept, window presets (CT brain, soft tissue, lung, bone), sigmoid and linear VOI functions.
- Key Object Selection documents (key images) and simple Grayscale Softcopy Presentation States (graphics and text).
- Encapsulated PDF documents, MPEG-2 / MPEG-4 video, Structured Reports (including Radiation Dose reports with a summary of totals and events) and ECG / waveforms (traces on ECG paper) — opened outside the viewer, in your default programs.
- Names and descriptions in any script (Latin, Greek, Cyrillic, Hebrew, Chinese, Japanese, Korean), using the fonts of this computer.
- Up to 16 viewports (1×1 to 4×4), one study at a time, each with its own image number, window/level, zoom and pan.

What is not supported

JPEG Extended 12-bit, RLE with 32-bit samples, HTJ2K and other newer compression, float / double-float pixel data (parametric maps), VOI LUT and Modality LUT sequences (a warning is shown), presentation state shutters, LUTs and spatial transformations (only simple graphics are drawn), overlay planes, RT objects, waveform annotations, audio waveforms, and playing video inside the viewer. DICOMDIR files are not read: the folder is scanned instead. MPR and 3D need a CT or MR series with one orientation and regular slice spacing (no gantry tilt); the buttons stay disabled otherwise, and MPR / 3D have no measurements. Printing is not available. A file that cannot be shown is listed under "Problems" with the reason; the other images stay usable. Always check an export from your own equipment or PACS before relying on this viewer for a batch of discs.

Decoding uses open-source Rust components (dicom-rs, zune-jpeg, an OpenJPEG port, and a JPEG-LS decoder derived from radicom-codecs-jpeg-ls); their licences are listed in LICENSES-THIRD-PARTY.md and under "Third-party licences" in this window. Decoders were checked against independent reference decoders (see VALIDATION.md); as with any viewer, test your own real exports first.

More Sup-C products and services for medical imaging: www.sup-c.com

For image review only — not a certified diagnostic workstation. Note: this is a simple viewing tool, not a certified medical device. Do not use it for diagnostic purposes. Sup-C DCMviewer is freeware; see LICENSE.txt (also built into the program: View License).