

Diagnostic viewer

Browser-based (Chrome, Edge, Firefox, Safari). No client installation, plug-in or Java runtime. WebGL2 is used for 3D rendering where available.

Image manipulation

- Window / level — brightness & contrast
- Window presets — lung, bone, brain, soft tissue, abdomen
- Zoom
- Pan
- Scroll / stack navigation
- Fit to window
- Actual size / 1:1
- Reset view
- Rotate left / right 90°
- Flip horizontal / vertical
- Invert greyscale
- Magnifier

Measurement & annotation

- Length
- Angle
- Cobb angle
- Rectangle ROI — mean, min, max, area
- Ellipse ROI — mean, min, max, area
- Freehand ROI
- Probe — pixel value / CT Hounsfield units
- Arrow marker
- Text annotation
- Freehand drawing
- Eraser / delete annotation
- Clear all annotations

Navigation & layout

- Cine playback
- Cine speed (FPS)
- Previous / next image
- Previous / next series
- Series thumbnail browser
- Layouts — 1×1, 1×2, 2×2, 3×3
- Full screen
- Maximise viewport
- Viewport synchronisation
- Crosshair
- Reference lines

Display & output

- Image overlay — patient / image data
- DICOM tag inspector
- Key image marking
- Snapshot
- Print
- Export image — PNG / JPEG
- Download DICOM — permission-gated
- Web upload — files, folder or .zip

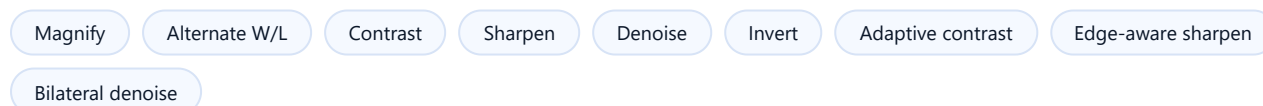
Advanced visualisation

- qLens™ — local enhancement lens
- MPR — axial, coronal, sagittal
- Linked crosshair across planes
- Per-plane scrolling
- MIP — maximum intensity
- MinIP — minimum intensity
- Average thick-slab projection
- 3D volume rendering — orbit and zoom

Performance & personalisation

- Progressive image loading
- Slice prefetch
- Secure caching
- Large CT / MR study handling
- Server-side decoding on retrieve
- Keyboard shortcuts
- Configurable mouse bindings
- User preferences — layout, overlays
- Hanging protocols

qLens™ — local image enhancement without altering the source image



Enhancement is applied inside the lens region only and is display-only: the source DICOM pixel data is never modified, the effect is reversible, one-click reset returns the acquired presentation, and the viewer indicates when post-processing is active.

Image handling

- Multi-frame DICOM
- Ultrasound RGB/YBR colour and cine loops
- MONOCHROME1 / MONOCHROME2
- Compressed transfer syntaxes — transcoded on retrieve
- Rescale slope / intercept and modality LUT

qPACS Mobile — Android & iOS

- Study worklist with paging and instant search
- Search by patient name, ID/MRN, accession, modality or date
- Opens studies in the qPACS viewer
- Same PACS account, role and permissions
- No images, reports or patient data stored on the device
- Connects to your server by address — no cloud routing
- Phone and tablet, portrait or landscape

DICOM & connectivity

- C-STORE — receive and archive
- C-ECHO — verification
- C-FIND — study, series and image level
- Query / retrieve — C-FIND, C-MOVE, C-GET
- Modality Worklist (MWL)
- MPPS — N-CREATE / N-SET procedure step status
- DICOMweb QIDO-RS, WADO-RS, STOW-RS
- Modality configuration — AE title, IP, port, routing
- Calling-AE allow-list — optional enforcement
- Transfer syntax support — compressed and uncompressed

Security & audit

- Role-based access control — view, report, export, admin
- Authentication and optional SSO
- Session timeout
- Patient context protection
- Study access audit
- Export / download audit
- Annotation audit trail
- Anonymisation — for approved secondary use
- Single-use launch tokens — short-lived, scoped

Patient & study workflow

- Patient search — name, ID, identifiers
- Study search — accession, modality, date, description
- Study worklist with filters and statuses
- Patient → study → series → instance hierarchy
- Prior studies
- Current vs prior comparison
- Study status — unread, in progress, reported, verified
- Study assignment to radiologists
- Patient image gallery — tool-less patient view
- Non-DICOM document store

Integration interfaces

- DICOM: C-STORE, C-ECHO, C-FIND, MWL, MPPS
- DICOMweb: QIDO-RS, WADO-RS, STOW-RS
- REST: order push and cancellation
- REST: launch-token mint and exchange — server-to-server
- Per-application client credentials and scope
- OpenAPI specification
- Native MediCubes RIS/EHR integration

Reporting

- Report editor alongside the images
- Report templates — by modality / body part
- Draft, finalise and sign
- Controlled addendum workflow
- Critical finding flag
- Report history and versions
- RIS / HIS / EMR integration — orders, demographics, results

Modalities

Designed to receive and archive objects from DICOM-conformant modalities across vendors. Devices are registered by AE title with an optional allow-list.



Architecture

COMPONENT	RESPONSIBILITY
DICOM node	Dedicated listener for C-STORE, C-ECHO, C-FIND, MWL and MPPS, isolated from the interactive API.
Application service	DICOMweb, REST API, web upload, on-retrieve transcoding; also serves the viewer (single origin).
Background worker	Thumbnail rendering and asynchronous processing.
Index	PostgreSQL — patient / study / series / instance index, orders, reports, audit; schema applied on upgrade.
Object storage	DICOM Part-10 files on local disk, SAN or NAS; S3-compatible object storage optional.

Requirements & licensing

ITEM	SPECIFICATION
Server (recommended)	Windows Server 2019+ / Windows 10+ or current Linux · 4+ CPU cores · 24 GB RAM · SSD for the database · bulk storage sized to study volume and retention.
Workstations	Chrome, Edge, Firefox or Safari. No client installation, plug-in or Java runtime. WebGL2 used for 3D where available.
Network	Standard LAN. Web 80/443, DICOM 11112 (configurable). Works with or without a domain; TLS supported and recommended for clinical use.
Installation	Guided installer creates services, schema, storage paths and firewall rules, and the first administrator. In-place updates preserve configuration.
Licensing	Signed, node-locked licence validated offline. Entitlements cover connected modality count and types; optional modules per licence.

Specifications are indicative and subject to change without notice. Availability of individual features may depend on edition, licence entitlements, deployment configuration and the capabilities of connected modalities and third-party systems. Sizing guidance should be confirmed against your study volume and retention requirements. Regulatory status for diagnostic use varies by territory; please confirm the applicable status for your market before clinical use.