# NILREAD v5.1 feature descriptions

## GENERAL FEATURES
- Verified browsers: MS Edge, IE11, Chrome, Firefox, Safari
- Verified devices: PC, Mac, tablet, mobile phone
- Multi-touch support on Windows 10
- DICOM, C-Store, SCU/SCP & MWL SCU
- DICOMweb (WADO-RS, QIDO-RS, STOW-RS)
- API interface to VNAs
- DICOM activity monitor
- Federated search: DICOM, XDS, Repositories, Web Services, etc.
- XDS and XDS-I Consumer
- FHIR integrations

## PUBLIC AND PRIVATE FOLDERS
- Public and private folders
- Printing
- Multiple Active Directory authentication
- Local NILRead authentication (for guest)
- Epic encrypted URL integration
- Fujifilm encrypted URL integration
- Open API for launch, authentication and report ingestion
- Lifecycle management
- Prefetch
- Multi-tenant (virtual sites & unique governance)
- Custom branding — designated locations for logos
- MDT/tumor board workflows: custom folders, batch queues, keyword flagging, folder notes, date stamps
- Study UID grouping with the same accession number (squishing)

## ADMINISTRATIVE TOOLS AND FEATURES
- Enables access to features as a system, group or user
- Tools and feature usage statistics by site
- Crash / exception statistics / IIS alerting
- Admin dashboard
- Study statistics
- Loading / rendering / SQL statistics
- Data analytics
- Break glass notifications
- Common Access Card authentication
- Enhanced Security Audit page
- UI for Epic AES-256 encryption

## REMOTE READING
- Edge Rendering
- Bi-directional propagation of preferences
- Study or streaming mode
**IMAGE SHARING, IHE AND COLLABORATION**

NilFeed: securely ingest imaging studies and documents from remote sites
Privilege controlled, zero-footprint upload/download with Web CD Uploader
Authorized one-time secure use link to external user to support web-based upload
Launch integration w/ EHR, dictation, specialty viewers
Send and share secured study links
HL7
Real-time collaboration

IHE Integration Profiles
- Image Display (ARI, BRI, CPI, ED, KIN, IID)
- Report Reader (ARI, SINR)
- Evidence Creator (CPI, ED, KIN)
- Display (RID)
- Document Consumer (XDS.b)
- Imaging Document Consumer (XDS.b-I)
- Content Consumer (XDS-SD)
- Patient Demographics Consumer (PDQ)
- Patient Identified Cross-Ref Consumer (PIX)
- Client Authentication Agent (EUA)
- Secure Note & Secure Application (ATNA)
- Time Client (CT)

**STUDY NOTES**

Aligned with best practices as outlined in the RSNA Reporting Initiatives Program (www.RadReport.org)
Customizable and portable HTML5 format
Stored as DICOM SR objects
Add DICOM data and images to a report
Floating report window (capable of resizing and moving for image viewing)

**DEPARTMENTAL WORKLIST / QUALITY ASSURANCE**

Advanced QC interface for video editing
DICOM attribute editing
Reconciliation with MML scheduled procedures
Series splitting
Masking, label, markers
Anonymization/confidentially masks
Outbound IOCM messaging to third party systems
Foldering/printing
Integration with external worklists (RIS, EMRs, dictation, enterprise worklist, etc.)
Quality control and data assurance components
Data quality control and data assurance tools
Video editing

**ADVANCED IMAGE VIEWING**

+1 Priors (adjacency)
Anatomical region filtering
Display/creation of presentation states
Save/send bookmarks
Create key images
Cross correlation between series (localizer)
Prior support
Linking between multiple series
Arrow and text annotations
Basic measurements: Point, Ruler, 3-Points Angle
Grease pen (annotation without measurement)
Advanced measurements: Ellipse, Contour, Region of Interest (ROI), Cobb Angle, Spine Tools, Reference Line Caliper
Blur/sharpen, gamma correction
Curved Reformat
Extended Patient Timeline
Advanced CT and MR Protocols (Automatic Multiple Series, 2D, MPR, and 3D)

**BASIC IMAGE VIEWING**

2D image manipulation: W/L, Zoom, Pan, Rotate, etc.
Cine
Non-DICOM: JPEG, PNG, TIFF, PDF, MPEG4
Display of reports
Toolbar configuration
Batch viewing
Multiplaner reconstruction (aligned, oblique, curved)
3D (volume rendering, MIP average)
Create Secondary Capture
Hyland Doc Filters integration
## Multi-Specialty Capabilities

- **Fusion** (PET-CT and PET-MR)
- **Mammography Diagnostic Workflow**
- **Mammography CAD display and edge detection**
- **Mammography implant masking**

### Ophthalmology Diagnostic Workflow:
- Ophthalmic Photography 8 Bit Image Storage
- Ophthalmic Photography 16 Bit Image Storage
- Ophthalmic Tomography Image Storage
- Wide Field Ophthalmic Photography
- Stereographic Projection Image Storage

- **DICOM-ECG standard** (view, measure and document diagnostic ECG waveforms)
- **ECG viewing layouts** (3x4+1, 3x4+3, 6x2)
- **ECG tools panel**: frequency features, timescale adjustments, gain adjustments
- **ECG area calculations**: BPM, Time, MVs
- **ECG viewing of QT Retrieval, RR Interval and QT and QTc formulas**
- **Simpson Measurement**, Ejection Fraction, GSPS
- **Heart rate measurements**

### Radiation treatment support functions including:
- Display of Radiotherapy plans
- Add/Delete/Edit isodoses
- Switch absolute to % isodose values
- Color editing, opacity and line thickness of isodoses
- ROI structures: color editing and opacity of structures
- DVH graphing, allow histogram computing

- **Orthopedics**: image stitching (scoliosis, leg length)
- **Neurology**: NIfTI image support
- **Dental imaging**
- **Referential pathology viewing** (US only)
- **Diagnostic pathology viewing** (EU, UK only)

## Patient Portal Enablement

- **EHR integration to patient portals with Image Viewing**
- **Simplified license**
- **Simplified user interface**
- **Study upload** (by the patient)
- **Secure link sharing** (by the patient)

Learn more at [HylandHealthcare.com/EnterpriseImaging](https://HylandHealthcare.com/EnterpriseImaging)