WORKSTATION ONE
MAMMOGRAPHY WORKSTATION

- Affordable
- Vendor Neutral
- Simple and elegant interface
- Intuitive and flexible Hanging Protocols
- Efficient Interpretation workflow

- Multi-modality: Optimized for reading Mammography, Ultrasound and MR studies on a single workstation
- Tomosynthesis support
- Displays computer-assisted detection (CAD)
- Bi-directional HL7 support
- Integration with third-party reporting systems
WorkstationOne™, offers a distinctly different style of enterprise integration and interpretation workflow. Our software understands the data-intensive challenges that radiologists are facing when moving to digital mammography, and the need to review digital mammograms as efficiently as they can read films on motorized light boxes. The workstation’s elegant and simple interface is designed to meet the most demanding radiologists’ needs.

User advantages:

- “Single-click” workflow to streamline mammogram reading from opening a study to generating a report.
- Customized mammographic-specific reading and hanging protocol sequences (including multiple priors support).
- Incorporates expert viewing methodology including Tabár’s systematic viewing mask techniques for searching for subtle radiographic abnormalities.
- 8 or more current and prior images are displayed immediately when the next study is opened, with multiple priors accessible by single click.
- An unlimited number of “current” images (2D and 3D) can be stepped through as part of the workflow (e.g., to handle extra views and duplicates), or the user can configure to only see the primary views, with others available with a “page-flip” click.
- Current images are high-lighted in all hanging protocols to minimize the risk of misdiagnosis from priors.
- Full-resolution image viewing navigated using a mouse wheel with visual tracing of pixels that have been viewed – no need to manually pan and zoom the images to view all pixels at full resolution.
- Electronic grease pen allows the radiologist to markup the image display any time; and automatically generate corresponding mammography recall form and/or screening report. Markup can be configured to be exported to PACS.
- Range of modalities – digital mammography (all vendors, including Hologic, GE, Siemens, Planmed, Philips, Metaltronica, Medi-Future, Fujifilm, IMS/Giotto), CR (including mammography images from Fuji, Carestream, Agfa, Konica), digitized films, DX, US, MR, CT, NM; integrated CAD, Key Notes and GSPS display.
- Tomosynthesis (i.e., 3D) support – DICOM standard (DBT/BTO), cine mode, navigation icon, fully integrated into the workflow. Tomosynthesis images from Hologic and GE units can be transferred in DICOM standard format, and non-standard Siemens tomosynthesis (CT) is converted automatically for viewing. Images from other vendors that generate DICOM standard (DBT/BTO) images are also supported.
- Collects reporting information automatically as each case is read, with the ability to export that to external systems (RIS, reporting, dictation, etc) or to generate various types of reports internally. For example the system can generate a recall form, initiate a simple report mechanism, and even generate DICOM structured reports (following the Breast Imaging Template).
Plug-in viewers for adjunct capabilities such as breast MR CAD, ultrasound CAD, web document review, dictation triggers, view DICOM structured reports, etc.

Mammography film printing – including 10 and 12 bit grey-scale, true size, chest-wall alignment, annotation positioning, as required to meet the MQSA guidelines. Multi-image print layouts are also supported.

Efficient reading due to bi-directional reporting system integration – reading can be driven by an external work-list, and markup and assessment results from the reading are transparently propagated back into the reporting system where they are included in the generated report.

**WorkstationOne™ Technical Data**

- Runs on Windows (XP and later) with the dotnet framework.
- Native 32 and 64 bit versions of the application.
- Recommended to be used with one color monitor for user navigation, and two high-resolution monitors (typically 5MP) for primary diagnosis of mammograms.
- Displays greater than 256 grey levels on suitable monitors, with optimized display on specific display cards which off-load all display tasks from the CPU.
- Includes support for a number of low-level display techniques (to get best speed and quality on the available hardware) – including OpenGL (configurable use of NVIDIA extensions), Direct2D (version 11), ISD (for specific Totoku and Sony monitors), as well as base GDI display mechanisms.
- Acts as a storage SCP in order to receive MG for presentation studies, Mammography SR reports, GSPS (gray-scale soft-copy presentation state) objects, and related images in classes such as SC (secondary capture), US (Ultrasound), MR (Magnetic Resonance), NM (Nuclear medicine), CT, DX and the Breast Tomosynthesis IOD (DBT/BTO).
- Acts as storage SCU to output generated SR, KOS, SC and GSPS.
- Acts as a print SCU for film printing to DICOM printers.
- DICOM secure communications (TLS) supported as a configuration option.
- Configurable use of modality worklist, HL7 connections and other mechanisms as hints for up-coming studies (to trigger pre-fetch) and for composing an interpretation work-list.
- Bi-directional HL7 support.
- Launching of cases via http, tcp, and file mechanisms, to support integration with external systems.
- Integration support includes bi-directional worklist synchronization, and export of reporting information.

**Enterprise features:**

- Follows industry standards, compatible with IHE Mammo guidelines.
- Images and related information (such as mammography CAD structured reports and markup defined in GSPS objects) can be pushed to the workstation, or can be retrieved from PACS.
Software-only install, so can easily be deployed in the field.

Runs on a range of Windows platforms (e.g., XP, Vista, Windows 7 and 8) – 64 bit preferred.

Low maintenance – system pre-fetches and cleans up data automatically.

Stand-alone configuration tool (allowing service configuration of site settings).

Intuitive integrated user configuration UI for user options.

Application honors the security settings of the enterprise – so can work within the policies that an enterprise implements as part of its HIPAA compliance.

Can work in a mixed environment with workstations from other vendors – e.g., as a “best of breed” viewer to accompany a VNA, or to form part of a “deconstructed PACS” deployment.

Easy user migration from existing workstations (such as SecurView, IDI MammoWorkstation, etc) as WorkstationOne provides even more functionality in an easier to use environment.

**IT features:**

- Two levels of pre-fetch – optimistic storage to local disk based on an expected worklist, plus caching to memory during the reading cycle using the interpretation work-list.

- Even with no user logged in, the system automatically pre-fetches studies.

- Multi-reader (local and/or remote) support with automatic and manual arbitration.

- Plug-in mechanism integrates the display of reports from an external RIS, and supports the trigger of an external dictation system with the identity of the study being read.

- Peer-to-peer worklist synchronization without the need for a server (reading states on multiple workstations can be automatically synchronized).

**Notes:**

WorkstationOne has FDA 510K clearance (K073272), CE marking, Health Canada License, and other clearances that allow it to be sold in various parts of the world.