

synedra View Professional

Version 22 "Niobe"

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1. Feature Overview

1.1. General Features

- Available in German, English and French
- Documentation available in German, English, French
- Dark user interface available
- Supported operating systems: Windows 10 x32, Windows 10 x64, Windows 11, Windows Server 2016 with Citrix Virtual Apps and Desktops 1912 LTSR (or later), macOS
- Can be run as a native 64-bit application; for an optimized performance and quick loading of big studies > 4GB
- Support of HTTP and HTTPS for software updates and web service calls
- Login via 2-factor authentication possible
- Integration of synedra View Professional with RIS, HIS or web applications
- Browser integration of archives via a URL call
- Users may create a local catalog, thus enabling them to access data without accessing the archive
- Integrated file and CD browser with preview function; optional web browser

- Keyboard shortcuts for an efficient access to tools and functions for key users
- Functions can be assigned individually to mouse keys
- Numerous possibilities for format conversions of images and videos; creation of conversion templates
- Easy compilation of key images to print on film (or paper), as PDF or as a new DICOM series
- Search in local catalog and/or in synedra AIM via a configurable web portal

1.2. Opening and Hanging

- Flexible configuration of hanging protocols; separate GUI for the creation and adaptation of hanging protocols
- Hanging protocol wizard to create personal hanging protocols
- Automated hanging of examinations/series/sequences based on default hanging protocols supplied with synedra View Professional
- Users can adjust the priority and activation of the hanging protocols available
- Configuration of comparative protocols
- Identification rules for hideable elements and for elements that are not to be hung are configurable
- Hanging protocols can be activated with buttons and keyboard shortcuts
- Possibility to select a certain hanging directly on the diagnostic monitor
- Mammo-specific hanging protocols (vertical image alignment and edge orientation)
- Dynamic grid adjustment to the aspect ratio of the display

1.3. Diagnostic Imaging, Image Viewing and Editing

- Direct display of all common image formats without the need to change the application
- Integrated PDF viewer with many features, including search, adjust page, adjust width, print, delete, split PDF document etc.
- Integrated media player based on ffmpeg, providing extensive support of different video formats; saves the current playback position in videos and restores it when playing the video the next time
- Image fusion view
 - Image fusion (e.g., fusing 2 images to measure the antetorsion angle)
 - Series fusion (e.g., fusing 2 series of the same examination, but of different modalities in oncology)
- DICOM display:
 - All DICOM image types, including x-ray (CR), MR, CT, nuclear medicine, PET, angiography, fluoroscopy

- Data embedded in DICOM: MPEG2, MPEG4, PDF
- DICOM Structured Reports
- DICOM Presentation States
- DICOM ECG data
- Viewing area can be flexibly divided into grids: n x m, 2+1 left/right/top/bottom
- Possibility to interact with the data directly on the diagnostic monitor: stripe, data selector, loading of previous examinations etc.
- Support of HL7 CDA
- Support of numerous image and multimedia file formats, including JPEG, JPEG 2000, Photoshop, TIFF, PNG, BMP (Windows Bitmap), XPM, PNM, GIF
- Single- and multi-monitor set-ups:
 - Standard clinical application on standard PCs with 1 monitor on each workstation in the hospital
 - Workstations for radiological image interpretation usually consist of three monitors: 1 control monitor and 2 high-resolution monitors (2, 3 or 5 megapixels); order of monitors can be changed (e.g., if control monitor is positioned to the right of the diagnostic monitors)
 - synedra View Professional can also be operated on two diagnostic monitors without the need of a control monitor
- Specified elements, e.g., presentation states, localizers, can be shown and hidden in the documenttree with a toggle button
- Wide range of image viewing functions, including window, zoom, magnifier, shutter, scroll, rotate, mirror, false colors
- Individually configurable window presets for CT examinations: cranium, abdomen, bone, lung, liver, spine, postmyelo, petrous portion, mediastinum
- Support of Thick Slab projections (MIP, MinIP, AVG) in stack view and in MPR
- Support of localizers for scrolling in series of slice images
- Visualization of the scroll direction when scrolling through an image stack
- Cine Loops: play-back of multiframe sequences (e.g., angiography, nuclear medicine, ultrasound sequences) and series of slice images (e.g., CT, MR) as film
- Synchronization tools:
 - Synchronous scrolling, windowing, zooming and panning
 - Synchronous application of the viewing properties Invert and Edge enhancement in multiple series
 - Synchronization of changes made to the MinIP, MIP and AVG projections and the slab size in all linked viewers

- Support of multiplanar reconstructions (MPR):
 - Rotation cube for an easy handling of multiplanar reconstructions
 - Orientation lines to visualize how planes are situated to one another; orientation lines can be shown and hidden
 - Tool to measure the volume of spheres/ellipsoids
 - Configuration of user-defined slice thickness possible
 - Configurable initial view of MPR examinations and configurable layout in MPR view
 - In the reconstructed view, it is possible to display two topograms (scouts), which inform users about the position of the reconstructed slice
- Specific tools for mammographic image interpretation
 - Quadrant zoom
 - Align image to nipple
 - Background Air Suppression
 - Edge enhancement
- Pre-configured labeling templates to label vertebrae and intervertebral spaces; creation of user-specific labeling templates possible
- Wide range of measurement and annotation tools:
 - Distances with optional display of the midpoint and snapping at 45 degree increments; adding further measuring points is possible
 - Measuring the perpendicular distance; *Application*: measuring the femoral offset, measuring the TT-TG distance
 - Areas; adding further measuring points is possible
 - Angles (3-point, 4-point, 2-line angle measurements) including snapping at 45 degree increments
 - Freehand; adding further measuring points is possible
 - Spline (Catmull-Rom-Splines)
 - Circle measurements either starting from the center of the circle or from 3 points on its circumference; display of diameter, circumference and area
 - Ellipse measurements
 - Density/gray value measurements
 - Measurements on Doppler ultrasound images: time and velocity measurements; display of the Resistive Index
 - Deleting/applying/copying/modifying selected measurements/annotations
 - Image calibration tool; support of different measurement units

- Measurement and annotation tools are available as so-called single shot tools
- Undo and redo for image editing functions

1.4. Exporting

- Options for the export of data to local media:
 - Data can be anonymized
 - Export of one image out of n, marked images
- Convenient production of patient CDs/DVDs; optionally available with a free viewer for patients, synedra View Personal
- Versatile printing component
 - Easy compilation of images to print on film (or paper), as PDF or as a new DICOM series
 - Configurable image text, header and footer
 - Creation of print templates for similar, frequently carried out print jobs possible

1.5. Integrated Special Features

- DICOM Query/Retrieve: Requests can be made to a DICOM archive or a modality; data can be transferred from this external system to synedra View Professional
- Support of DICOM ECG documents including specific tools (i.e., ECG time measurement, ECG heart rate measurement, ECG tension measurement) and display of interpretation
- DICOM/EXIF Dump: display of the DICOM and EXIF information contained in the image
- Support of punctures (puncture cube):
 - Automatic recognition and display of the puncture cube in CT exams in the MPR view
 - Display of the top and bottom template of the puncture cube
 - Tool for the positioning of the puncture needle
 - Preset window values for an optimized image rendering

1.6. Usage and Support

synedra View Professional is a class IIb medical device certified to Regulation (EU) 2017/745.

synedra View Professional may be used for medical purposes.

synedra View Professional includes a professional email support.

synedra View Professional may be used on diagnostic workstations.