

# CONAXX 2

## Module description

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## Scope of supply:

### **CONAXX 2 Acquisition System DR**

*Article-No. 4330-0-0200*

Consisting of:

- Acquisition Module
- Advanced Image Processing Module
- DICOM Store Module
- E-mail Module
- GDT/BDT/EMR Module

## Modules of the “CONAXX 2 Acquisition System DR” in detail:

### CONAXX 2 Acquisition Module

- Simple language selection when CONAXX is first started
- Supported languages: English, German, French, Spanish, Hungarian, Czech, Polish, Lithuanian, Chinese, Romanian
- Touch-screen compatible, appliance optimized for type of input device
- Manual creation of patients
- Creation of emergency patients
- Internal patient database
- Creation of X-ray jobs by selecting
  - the body part (with help of a homunculus)
  - the organ (fine part)
  - the view position (ap, lat ...)
- Radiographic Positioning: Predefined text instructions, positioning and real images provides assistance for carrying out the X-ray job. Images and texts are freely configurable by the user.
- Automatic X-ray job creation (“QuickJobs”). “QuickJobs” can be configured to create several simple scan jobs in one step. I.e. when a “QuickJob” is selected during the job creation, all other jobs belonging to it will be generated automatically.
- Automatic X-ray job creation by means of “Procedure codes”: “Procedure codes” can be configured representing a set of a single X-ray jobs. Transmitted via GDT or DICOM Worklist the “Procedure code” will be used in CONAXX for the automatic X-ray job creation.
- Exposure series: starts the next job automatically after an exposure
- Filter jobs according to their current status
- Crop-function: important image parts might be cut out, helps saving memory and facilitate diagnose. With this function an optimized cropping frame is being suggested, which can be adjusted manually.
- Automatic, configurable and manual image comment
- L/R signs, annotations (unlimited number)
- Annotations and L/R signs can be moved in the image and edited
- Flip, mirror and rotation
- Automatic and manual window level (image optimisations through brightness and contrast functions)
- Creating a DICOM file with the respective header information
- Internal security archive incl. self-clearing according to user settings
- Image export in different formats (DICOM, JPG, TIFF, BMP)
- Print images on a Windows compatible printer
- Flexible user model with different security options and permissions
- Configurable visibility for all image processing functions
- Simple configuration; import and export of configuration settings (therefore easy installation and setup)
- Guiding of the user during the image generation (visual and acoustic references on preparation and activation).
- Integrated, automatic cropping suggestion. The suggestion is being displayed automatically onto the image and can be accepted and modified. Only diagnostically important parts of the image data is being brought to sight.
- Exposure index: The exposure index is a value given for each image that correlates with the image receptor dose under same exposure conditions. The values “exposure index”, “deviation index” and “target exposure index” are indicated.
- Tube angle monitoring: Warns if the tube rotation is incorrect (only available with the systems PRS 500 or PRS 500B).
- Grid monitoring: Warns if the inserted grid is incorrect (only available with the systems PRS 500, PRS 500B or PEDS 600)

## **CONAXX 2 Advanced Image Processing Module**

- Factory set AUTO-PROCESSING of images, contains specifically defined routines for image processing and filtering
- Contains extended filters
- Contains the Professional Image Tuning (PIT) module: This module enables the technician and the physician the most effective individual image adjustment. All kinds of body parts can be modified according to the taste of the physicians. This fine tuning function is easy and comfortable to use and all modified adjustments – e.g. grey tone values, contrast, sharpness - can be automatically processed on the corresponding body parts.

## **CONAXX 2 DICOM Store Module**

- DICOM Store SCU incl. optional encryption (TLS)
- Stores images into DICOM compatible PACS (local or over network)
- Stores images automatically to different PACS
- DICOM Storage Commitment SCU

## **CONAXX 2 E-mail Module**

- Sends image by e-mail as attachment
- Uses JPEG as image format
- Automatically use of local installed e-mail client

*Hint: E-mail client is required and not part of the delivery.*

## **CONAXX 2 GDT/BDT/EMR Module**

- Automatic transfer of data from a patient administration software
- Taking concrete jobs from a patient administration software
- Configurable reply message to patient administration software (only with GDT)

## Additional modules in detail:

### CONAXX 2 X-Ray Journal Module

Article-No. 4330-0-0001

- Viewing and archiving of X-ray journal entries
- Searching of X-ray journal entries
- Automatic take-over of dose area product meter
- Automatic [sending of Radiation Dose Structured Reports \(RDSR\) to a DICOM compatible dose management system](#)

### CONAXX 2 Gridline Suppression Module

Article-No. 4330-0-0008

- When using fixed x-ray grids, lines can be seen in the image. These gridlines are removed automatically by using special „Fourier-Transformation-Algorithms“
- Gridlines can be removed manually or automatically
- When necessary lines can be recovered after removal

*Note: Specialised on 40 lines/cm grids.*

### CONAXX 2 Generator Connection Module

Article-No. 4330-0-0012

- Control of the X-ray generator (integrated into CONAXX software functionality)
- Adjustment of all generator parameters from CONAXX
- Automatic adjustment of the parameters for children
- All application functions in the range of the radiography are guidable directly in CONAXX (high operation friendliness as well as fast and optimised workflow).
- Compatible X-ray generators:
  - PROTEC PROVARIO HF
  - PROTEC PROSLIDE 32 B
  - PROTEC PROSLIDE 32 SR
  - PROTEC PROSLIDE 40 B
  - PROVOTEC ProVario 50
  - Siemens Polydoros RF RAD 80
  - Siemens Polydoros RFX
  - Spellman Editor HFe
  - WIROMA OptiX
  - CPI Indico 100
  - CPI CMP 200
  - CPI CMP 200 DR
  - Neusoft Venus 50-R
  - Protecasia PHG-HR32
  - Protecasia PHG-HR50
  - Protecasia PHG-HR65
  - Protecasia PHG-HR80

## **CONAXX 2 Automatic Collimator Module**

Article-No. 4330-0-0028

- Siemens collimator "AL02 II eL" (Article 10092614) (Hint: "CONAXX 2 Generator Connection Module" additionally required):
  - Allows the control of the shutter
  - Allows the control of the filtration

*Note: "CONAXX 2 Generator Connection Module" additionally required*

- Ralco collimator "R230" (Hint: only in combination with "PRS 500 B" x-ray system):
  - Display of the source-image distance (SID)
  - Automatic adjustment of the collimator so that the collimated area remains constant when changing the source-image distance
  - Automatic setup of pre-defined collimation and collimation filter according to the body part

## **CONAXX 2 Dual Panel Module**

Article-No. 4330-0-0014

- Enables the use of two or if applicable of more DR modalities out of one CONAXX software
- Demanded DR selectable in the software or in case of x-ray generator module by the selected projection direction defined

*Note: Module only works with specific DR modalities and their combination. Modality must be integrated in the CONAXX already. According to the modalities specific PC system requirements have to be fulfilled.*

## **CONAXX 2 DICOM Print Module**

Article-No. 4330-0-0010

- For printing on a DICOM Imager directly from CONAXX
- Images can be printed immediately directly after acquisition
- Can be configured individually and adapted to various imagers according to user's preferences
- Layouter to arrange different images on one page
- Support for multiple DICOM Printers

*Note: Printer is not included. Please contact us for information on our DICOM Imager range!*

## **CONAXX 2 DICOM Query Module**

Article-No. 4330-0-0024

- DICOM Query SCU
- Queries for patient data on a DICOM compatible PACS

## **CONAXX 2 DICOM Worklist Module**

Article-No. 4330-0-0025

- DICOM Worklist SCU queries automatically for patient and job data on a DICOM compatible PACS
- DICOM MPPS SCU for sending status information of the job data automatically

### **CONAXX 2 Patient CD Module** *Article-No. 4330-0-0015*

- Allows the creation of Patient CDs with one or more patients on optical media (CD, DVD)
- Export a Patient CD to USB flash drive or hard drive
- Contains PROPAXX CD Viewer with the following functions:
  - Window level function
  - Panning function
  - Magnifier
  - Zoom functions
  - Light box with tilings up to 3x3
  - Full screen view
  - Annotations:
    - Text
    - L/R marker
    - Arrow
    - Ellipse
    - Rectangle
    - free hand
  - Measurements:
    - Distance
    - Angel
    - HD angel
  - Rotate/mirror images
  - View DICOM header
  - Interactive histogram
  - Ruler
  - Grid lines

### **CONAXX 2 Stitching Module**

*Article-No. 4330-0-0022*

- Enables the stitching of multiple images
- Stitching process runs automatically without image arrangements by the user

*Note: Module only works with the Stitching Trolley (Article-No. 7010-0-0000). A film-focus distance of 3m is recommended (min. 2.8m).*

### **CONAXX 2 Stitching Autotracking Module**

*Article-No. 4330-0-0029*

- Fully motorized procedure during the stitching process for optimum speed and accuracy
- Electronic collimator for perfectly collimated images and minimal radiation exposure for the patient
- High geometric accuracy for minimal stitching errors
- State-of-the-art stitching algorithm for superb image quality and perfect-looking overlap areas
- Fast interaction of the individual system components for high-performance workflow
- Preparation of the stitching process by an interactive wizard

*Note: Module only works in conjunction with the Stitching Trolley (Article No. 7010-0-0000), the "PRS 500 B" x-ray system and the Ralco "R230" collimator. It is recommended a film-focus distance of 3m.*

## CONAXX 2 Diagnostic Viewer Module

Article-No. 4330-0-0023

- Enables the image diagnosing for a single workstation solution
- Automatic self-clearing function can be disabled to allow a complete archive
- Contains the following functions:
  - Lightbox
    - Parallel view of several images
    - Additional images of other patients can be loaded for comparison
    - Moving of images within viewing area
  - Interactive histogram
    - View of grayscale spreading of an image
    - Enables interactive adjustment of windowing features and immediate use
  - Quick access toolbar for the main functions
  - Window level
  - Panning
    - If image is larger or zoomed larger than visible area (tile) of the lightbox in which it is opened, image parts from outside the visible area can be moved into the visible window
  - Magnifier
  - Region windowing
    - Other than the standard windowing function, where the window levelling is applied immediately to the whole image, the user of the region windowing function defines an area (region) of the image where contrast is optimized first. The settings of this area are later applied to the complete image
  - Crop function
  - Electronic shutter
    - Blinding out the border area of an image (comparable to collimator in the x-ray unit)
  - Rotate and mirror
  - Annotations
    - As text
    - Geometrical shapes (arrow, ellipse, rectangle, freehand)
    - L/R-markers
    - Annotations can later be moved and edited
  - Measurement functions
    - Distance, angle, circle, angle between two lines, PennHIP, HD-angle (hip-dysplasia-angle), Cardiothoracic ratio
    - Calibration
    - Measuring can be configured
    - Measurement functions can later be moved and edited
  - Filtering
    - Provides a predefined number of different filters for image optimization in addition to the Advanced Image Processing filters
  - Inversion
  - A number of zoom functions
    - Fit to screen
    - Zoom 1:1
    - Zoom factor
    - Zoom region
  - Fullscreen
  - Overlays/Ruler/Grid
    - Show and hide Overlays/Ruler/Grid
    - Color of the overlays can be configured
    - Color and scale of the ruler can be configured
    - Color, scale and distance between grid lines can be configured