

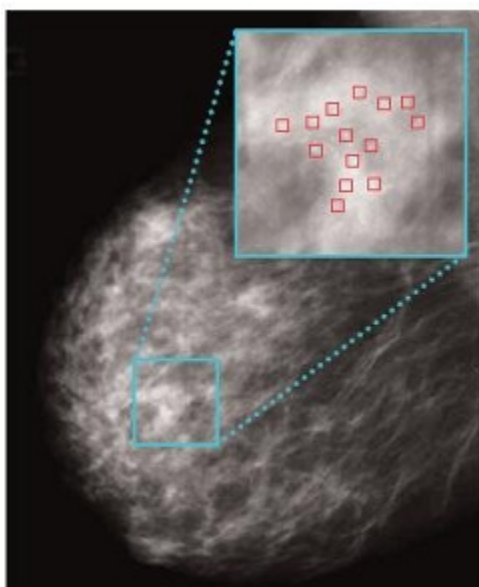
CyclopusCAD Mammo

An advanced Class IIA Medical Device (93/42/EEC). When integrated within the mammography workflow CyclopusCAD® Mammo it provides a powerful IT solution for the detection of breast cancer and it is especially effective in detecting significant pathology in its earliest stages.

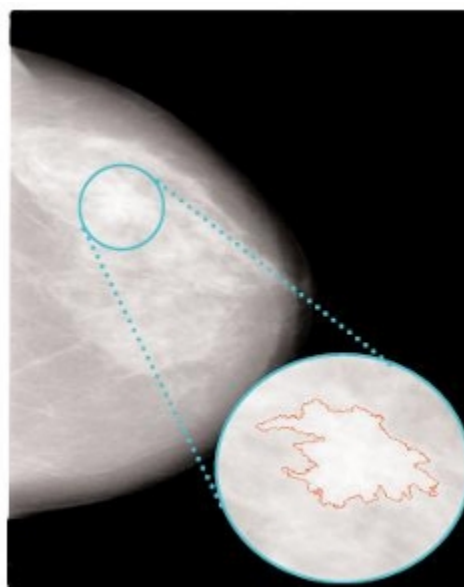
The primary purpose of CyclopusCAD® Mammo is to serve as a “second reader” to assist the radiologist in viewing mammography images. Using the technology has the important secondary benefit of reducing problems associated with fatigue arising from long and repetitive routine work. Improved well-being in the physician, in turn, impacts positively on diagnostic outcomes and even the costs of healthcare provision.

CyclopusCAD® Mammo uses artificial intelligence algorithms developed for the identification of potential lesions on mammographic images. The CAD result (standard DICOM SR) is super-imposed visually on the original image in the mammo viewer (Hipax or Alma Mammo) through various symbols and by extent delimitation (contouring), depending on the lesion type, ie mass lesion or microcalcification. Early cancers are identified using a patented pattern recognition method in conjunction with sophisticated computer vision technology to analyse the images.

CAD performance is usually expressed in terms of sensitivity and specificity. In the great majority of CAD software products these parameters are dependent on decisional threshold values that are set as a default constant by the application developer. By contrast CyclopusCAD® Mammo enables the radiologist to make fine adjustments of the decisional threshold (Fine Tuning Threshold) according to his/her own preferences.



“CAD marks”



“contouring”

Unique Features of CyclopusCAD® Mammo

- CAD decisional threshold can be fine-tuned with radiologist’s preferences and requirements
 - radiologist can choose the optimum working point by tuning the threshold
- the CAD also outputs the contours of the regions of interest which can be subsequently displayed for a more accurate reading

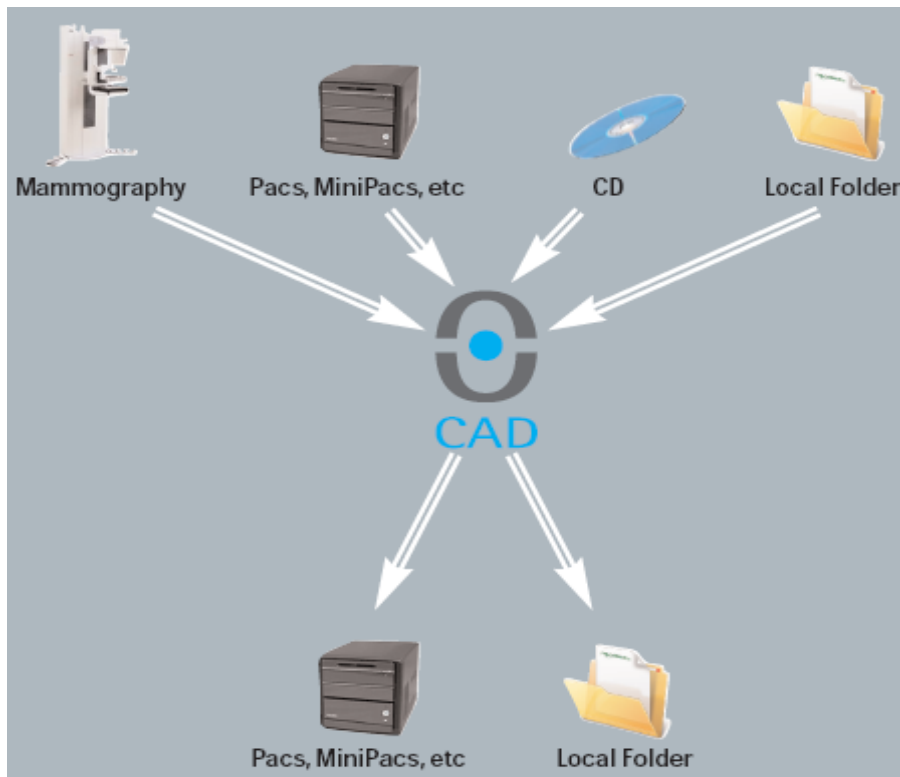
Installation

CyclopusCAD® Mammo can be installed on review stations or on a dedicated hardware



Input (DICOM Image) / Output (DICOM SR)

CyclopusCAD® Mammo can receive the mammographic images from various input sources and produce a DICOM SR file which can be subsequently sent to the PACS and/or stored locally



Technical Data

- Input
- MG DICOM "for presentation" – for use by doctors (with Hipax or Alma Mammo)
 - MG DICOM "for processing" – for use by OEM's in development as embedded tool
 - CR DICOM
- Output
- DICOM CAD SR

Danum International recommend Hipax Diagnostic Workstation or Alma Mammo viewing software for use with CyclopusCAD. Please refer to www.danum.com for further details.