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# Catella 6.0 **Features Sheet**

## **IMAGING FUNCTIONS:**

#### **DISPLAY FUNCTIONS:**

- Multiple viewing matrices for comparison of multiple image series
- Multiple image layout within a series
- Thumbnail display for image series
- Display of scout lines
- Display of images in ascending or descending order for CT/MR
- Define image layout and overlay parameters based on modality
- Tagging of key images with options for creating categories based on modalities and study types
- Synchronization



## **IMAGE PROCESSING FUNCTIONS:**

- Window level manual and preset modes
- Zoom, pan, flip, rotate, invert image
- Hounsfield values for CT images
- ROI zoom
- Hide/show DICOM overlays
- Image stack/review for image series
- Image histogram
- Image sharpness and enhancement tool
- Customizable toolbar based on modality
- Image Stitching interface with image processing options of select, zoom, fit to screen, rotate left or right, rotate  $180^\circ$ , flip horizontal or vertical, reset image, move left or right, move up or down, bring to front, lock, move back, remove image, portrait and landscape

## ANNOTATION AND MEASUREMENT TOOLS:

- Line, arrow, rectangle ellipse and text annotation
- Freehand drawing
- Linear, angular and area measurements
- Cobb angle measurement
- Share annotation settings between Image Viewer and Image Acquisition

# **EXPORT FUNCTIONS:**

- Export images as JPG, BMP, or DICOM files
- Export images directly to PPT
- Send image to a particular DICOM node
- Option to Export worklist data to a file (HTML, XML, Excel or Text)

#### MULTI MONITOR AND HANGING PROTOCOLS:

- Supports unlimited landscape or portrait monitors
- Spreading of study/series on different monitors
- Screen configuration

#### PRINT COMPOSER:

- Select from multiple DICOM printers
- Customizable image layout to include images from multiple patients
- Image processing tools in the print composer include zoom, pan, window level,
- Select film size and orientation (Portrait or Landscape)

# **WORKLIST FUNCTIONS:**

- · Tree view display of studies and their corresponding series in the worklist
- Send selected studies to remote node
- Option to select multiple studies for viewing of images
- Display of reporting status
- Display of number of images and study size
- Display the job and DICOM Print Status of the study in the Worklist screen
- Display the image count and series size of the study in the series level in the local archive

- Advanced Study status field is added to the archive screen and can be edited through Edit Patient details window
- Instantly prepare report for selected study
- One click CD/DVD creation with multiple study selection
- Write a specific series to a CD/DVD
- Option to select multiple studies from a Server to download to the local archive
- Option to merge and split studies and series
- Color Code for Archived Patient Information display
- Reconcile the incoming study to either change the ID and add as a new study to the archive or merge with the existing study

# **QUERY/RETRIEVE FUNCTIONS:**

- Pre-defined filters for easy access to required studies, e.g. "All CT Studies Today," "All Female CR Studies," etc.
- Advanced search based on name, ID, study range, modality, etc.
- Advance search that allows user to open a custom search window to search local archive, query and search key images
- List of all available nodes by means of drop down buttons to select server to query from and store to
- Query from multiple servers or local archive Easy loading of DICOM and DICOM DIR files
- Cancel loading of images
- Search archive on institution name, referral physician and report status in advanced search mode and with predefined filters (import and export settings are also updated)



# **HL-7 INTERFACES AND FUNCTIONS:**

- Includes HL-7 interfaces for reporting back status to a EHR HL-7 compliant system
- Includes HL-7 interfaces to report location of imges in PACS to a EHR HL-7 compliant systems.
- Includes HL-7 interface to provide HER HL-7 compliant system with URL call for opening PACS browser style viewer to patient images.
- Includes the ability to receive and HL-7 scheduling and/or order message to build a DICOM modality worklist (MWL)



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## IMAGE ACQUISITION (optional module):

#### PATIENT INFORMATION:

- Query patient information from any DICOM modality, DICOM server, DICOM Workstation or Modality Worklist Server
- Receive worklist based on preferences, e.g. all new images, images from only one type of modality, images from a selected IP
- Search parameters include patient ID, name, sex, study date, accession number and modality
- · Manually enter patient information

#### STUDY MANAGER:

- Set study date, time, accession number and ID
- Set patient series date, series time, modality and description
- · Auto generate patient ID, study ID and series UID

#### **IMAGING FEATURES:**

- Display images in full size, 1x1, 2x2, 3x3, 4x4, 5x5, and 6x6 layouts
- Image manipulation tools include window (brightness), level (contrast), cropping, invert image, text and arrow annotations, rotate image, etc.
- De-skew image when scanning images
- · Merge selected images and convert to AVI
- Edit DICOM attributes for DICOM images
- Segment the scanned medical film to multiple images before pushing to PACS
- Pan and zoom image as in Image Viewer
- Viewing software supports hanging protocols including both general and mammogrphay protocols
- Images can be accessed from outside the local area network via addition of an SSL license.

## ADVANCED LINE ANALYSIS TOOLS INCLUDING:

- Skull: Vastine-Kinney Method of Pineal Gland Localization, Sella Turcica Size, Basilar Angle, McGregor's Line, Chamberlain's Line, MaRae's Line, Height Index of Klaus, Boogaard's Line, Boogaard's Angle, Anterior Atlanto-Occipital Dislocation Measurement
- Cervical Spine: Atlantodental Interspace (ADI), Method of Bull, George's Line, Posterior Cervical Line, Sagittal Dimension of the Cervical Spinal Canal, Cervical Gravity Line, Cervical Lordosis (Angle of the Cervical Curve, Depth Measurement, and Method of Jochumsen), Stress Lines of the Cervical Spine (Flexion and Extension), Prevertebral Soft Tissues
- Thoracic Spine: Cobb's Method of Scoliosis Evaluation, Thoracic Kyphosis, Thoracic Cage Dimension
- Lumbar Spine: Intervertebral Disc Height (Hurxthal's and Farfan Methods), Lumbar Intervertebral Disc Angles, Lumbar Lordosis, Lumbosacral Lordosis Angle, Sacral Inclination, Lumbosacral Angle and Disc Angle, Lumbar Gravity Line, Lateral-Bending Sign, Meyerding's Grading Method in Spondylolisthesis, Ullmann's Line, Eisenstein's Method for Sagittal Canal Measurement,
- Lower Extremity: Teardrop Distance, Hip Joint Space Width, Acetabular Depth, Center-Edge Angle, Symphysis Pubis Width, Presacral Space, Acetabular Angle, Iliac Angle and Index, Measurements of Protrusio Acetabuli, Femoral Angle, Skinner's Line, Axial Relationships of Knee
- Upper Extremity: Glenohumeral, Acromiohumeral and Acromioclavicular Joint Spaces
- Specials: Gonstead Measurements, Cervical Curve

# **IMAGE ACQUISITION:**

- Capture single frame and multiframe images using a grabber card from any non-DICOM modality including Endoscope, Ultrasound, CT, MRI, C-Arm, Cathlab, etc.
- Scan documents like physician reports, tech notes, lab reports and more by connecting TWAIN compliant scanners
- Scan film by connecting to film digitizer (VIDAR)
- · Import JPG, DICOM, files and AVI files from a selected folder in the local drive.
- Import images from TWAIN compliant cameras
- · Foot switch integration for capturing images/sequences using a grabber card.

# PREFERENCES-ACQUISITION:

- · Set default input and output directory
- · Set frequency for auto capturing images
- Set default DICOM Query server, Store server and DICOM worklist server
- Allows only authorized users to make the preference changes
- Filter worklist for AET
- Force to gray scale
- Default scanner settings

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- · Video capture settings like device, input, format, standard and compression
- Supports Modality Worklist (MWL) in its basic configuration (not as an extra charge feature) is unique.
- Supports mammography and general radiology hanging protocols.

# **CD/DVD WRITING FUNCTION:**

- Burn CD/DVD with embedded viewer
- Burn multi patient CD/DVD
- · Embedded viewer includes essential image processing tools
- · Written images are stored as DICOM files
- Burn CD/DVD using Rimage, Primera, Duet or local CD/DVD recorder
- PACS browser viewers include the ability to create CDs with appropriate administration control.

#### REPORTING FUNCTIONS:

- · User defined customizable report templates
- Multiple report templates for each study
- · Double click images for adding images to report
- Customizable report header to include center name, logo, address, etc.
- Finalization of report to prevent further changes
- Print images using pre-defined layouts through Windows based printers.
- Notes for reporting
- · Multiple reports and multiple versions of report
- Presentation state of the images to be retained to images in reporting window

#### **BACKUP MANAGEMENT FUNCTIONS:**

- · Housekeeping to free disk space
- · Import and export configuration settings
- Backup database and archive
- Schedule backup
- Delete log files that are older than the given number of days by the scheduler service in housekeeping settings.
- Restore the backed up database from the specified location supporting both .bak and .zip formats.
- Manual and scheduled database backup to be compressed as a password protected zip file

# **DICOM ROUTER FUNCTIONS:**

- · Rules based DICOM router based on conditions and actions
- Create rule condition for receiving images based on AE title, IP address, modality, duration, DICOM attribute, etc.

# **ADMINISTRATION MODULE:**

- Configure multiple DICOM devices
- Create multiple users with different access rights (Doctor or Technician)
- · Storage management based on modality
- Modality description to be displayed as tool tip for the modality buttons in preferences
- Auto log off feature
- Lock the application by using Ctrl + Alt +"L"
- Quick switch between windows by using Ctrl + Tab for forward switch and Ctrl+ Shift+Tab for reverse switching
- Customize hot keys function available in Preferences, Image Viewer and Print Composer for specific customization

# SYSTEM REQUIREMENTS:

- SQL database
- Pentium IV 2.8 GHz
- 1 GB RAM
- Network adapter
- · 40GB of free Hard Disk space for software installation
- CD/DVD-RW Drive
- · Standard network connection to DICOM nodes

# **OPERATING SYSTEM REQUIREMENTS:**

- Windows XP Professional SP2
- · Windows Vista compatible