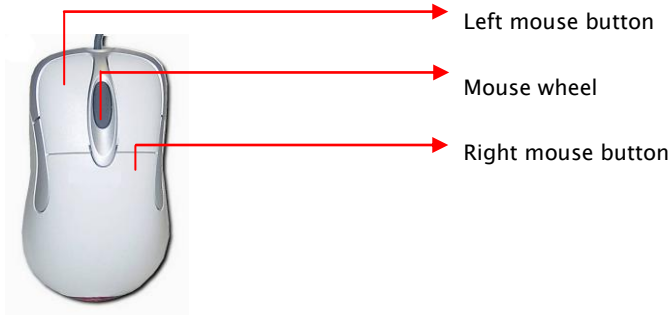




Short manual version: 5.2.7


This is a veterinary device for animal use ONLY, do not use for humans under any circumstances.

1. Mouse buttons – functions



Functions of the left mouse button:

On the navigation bar:

- Moves scroll bar (with button held down)
- A click on a preview image opens the image in the working area
- By clicking on one of the letters  an additional application window is opened and/or is switched to the respective additional application window; the letter of the active application window is grey

In the working area:

- Moves image within its grid area (PAN tool)
- Applies the tool selected from the tool bar (e.g. measurement, magnifying glass, annotation etc.)

On the tool bar:

- Selection of function or tool
- Moves the visible part of an image in the overview image (with button held down)
- Repositions the visible part of the image by clicking on the overview image

Functions of the mouse wheel:

On the navigation bar:

- Scrolls up or down the preview images

In the working area:

- Press mouse wheel to set the favorites menu
- Scrolls through a series (also within a grid area) (this is also possible by using the function “Moving through a series”)
- Moves the image within its grid area (PAN tools) with the wheel held

down

- Zoom: the Ctrl-key is pressed and the mouse wheel turned at the same time or the right mouse button is pressed and the mouse wheel is turned

On the toolbar:

- Zooms into or out of the selected image when cursor is positioned in the overview image (stageless zoom)

Functions of the right mouse button:

On the navigation bar:

- A click on a preview image opens the image in the working area

In the working area:

- Applies the tool allocated to the button (e.g. window level, magnifying glass, etc.)
- Zoom: the right mouse button is pressed and the mouse wheel is turned

2. The user interface – first overview

2.1 Toolbar

Most important tools can be activated just by clicking on the toolbar icons. If you hold the cursor over an icon, its function is displayed as a short text field (online help).

2.2 Working area

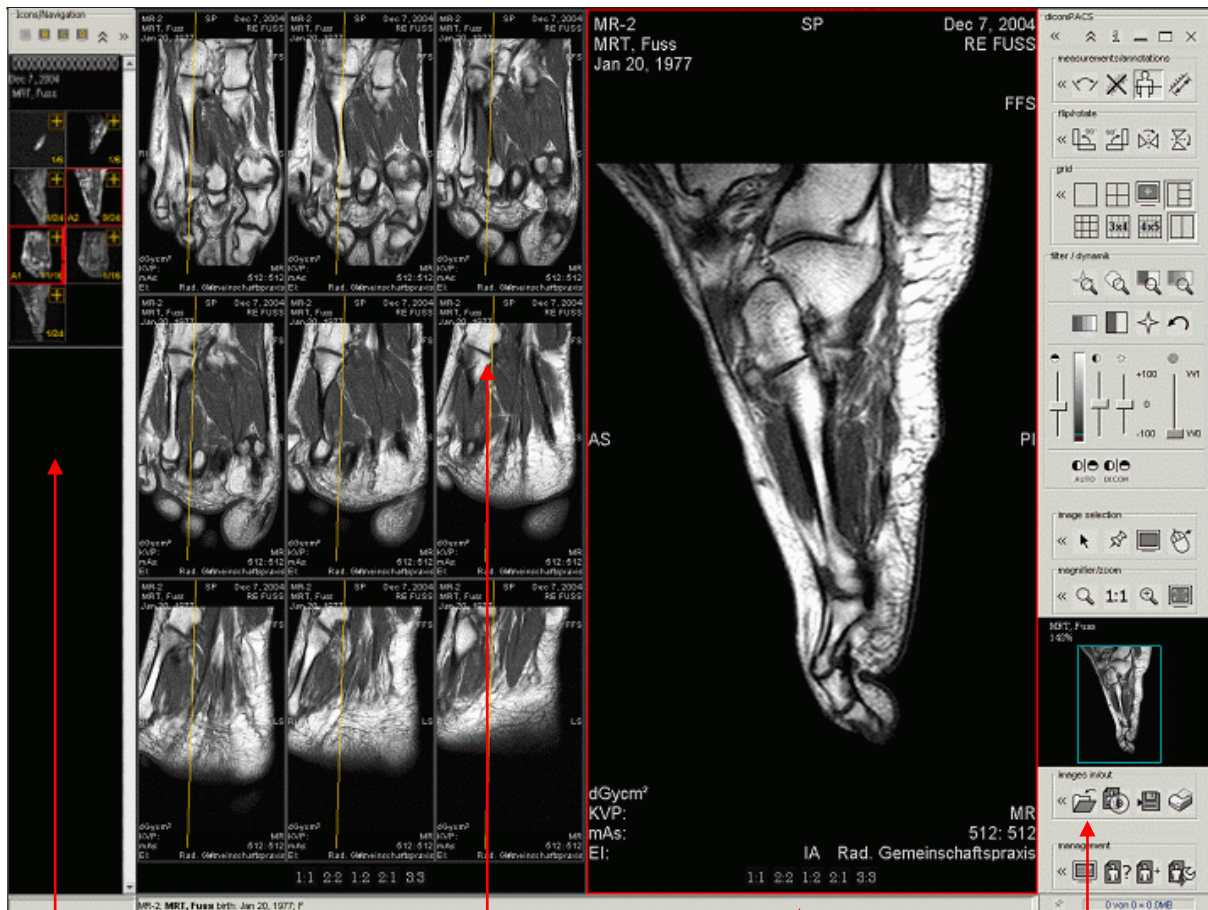
All loaded images or videos are displayed in the working area and are available for editing.

2.3 Information bar

This is located at the bottom of the window and displays all important information such as patient data, etc.

2.4 Navigation bar

All opened objects (images, videos, etc.) are visible on the navigation bar, even when not displayed in the working area.



Navigation bar

Working area


Information bar

Toolbar

3. Working with *DragonflyPACS*

3.1 The toolbar – general handling

The toolbar is divided into separate tool areas. Each tool area contains a number of tools belonging to a thematic group. The area “management” for example contains all tools for loading images, entering new patients etc. The area “images in/out” holds all tools for acquisition and output of images, e.g. video recording, scanning, printing, etc.

All settings can be adjusted by clicking on this symbol  in the respective area. Tools whose icons are not directly visible on the toolbar can still be used by clicking on the icon in the **configurator** or by using a **keyboard shortcut**.

Shows / hides icon on toolbar

Tool (Icon)

Keyboard shortcut

Tool area Shows / hides configurator

Hides configurator

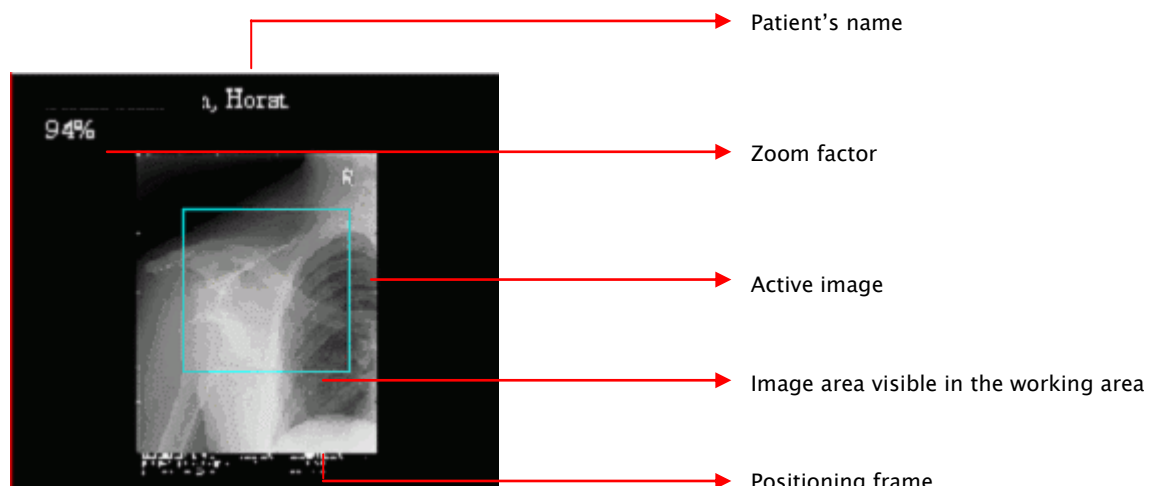
Depending on requirements and usage, the icons visible in the tool bar areas can be hidden or shown (by clicking the box next to the icon) or allocated to a keyboard shortcut. In order to enter the desired shortcut, position the cursor in the field next to the icon and enter the shortcut via the keyboard (e.g. C or Alt+C). This is an easy way to customize the user interface and the availability of tools for individual needs.

A further important element of the toolbar is the overview area. It shows the currently active image (framed red in the working area) as an overview.

A turquoise/green frame in the overview area marks the part of the image currently visible in the working area, e.g. when the zoom function is being used. The visible area can be moved with the left mouse button held down. It can also be repositioned with a single mouse click in the overview area.

When the cursor is positioned in the overview area, the zoom can be adjusted using the mouse wheel.

The percentage figure in the image (here 94%) shows the current zoom factor of the active image compared to its original resolution in pixel. The example shows an image that is reduced by 6%. At 100%, a pixel on screen corresponds to a pixel in the original image (please see notes on 100 percent representation of the image in the user manual).

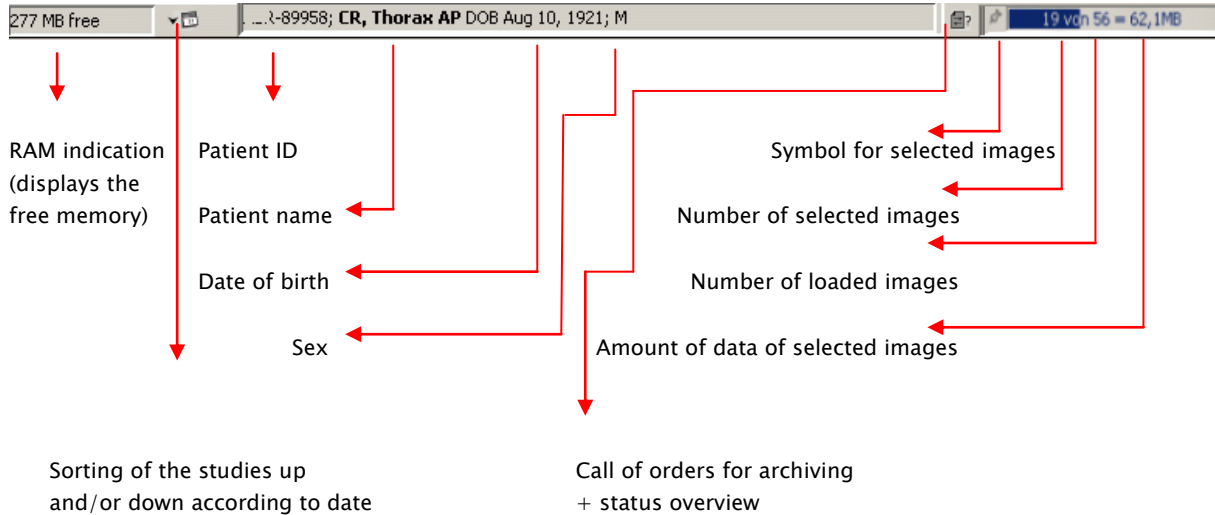


The tools described on the following pages are divided into two types requiring different handling. On the one hand, there are mouse tools such as measurements and the magnifying glass which have to be activated and can then be used with the mouse in the working area.

On the other hand, tools such as rotations, flips or display of a specific grid in the working area are operated by a simple click. Please activate the image to which you would like to apply the tool. Then apply the tool by a left mouse click or by pressing the allocated keyboard shortcut.

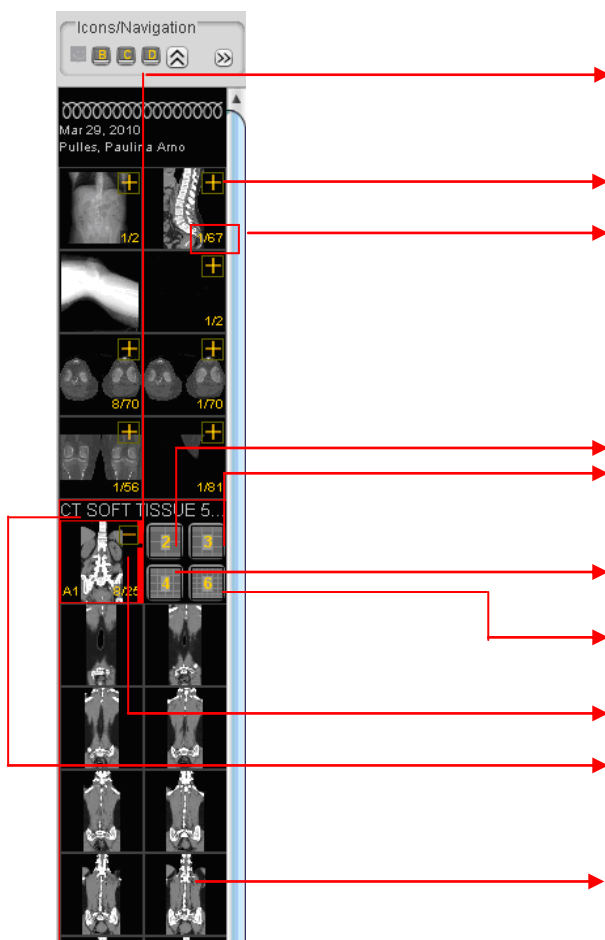
3.2 Information bar

The information bar provides the patient data for the currently loaded images and the total size of all selected images. This information is given in Mbytes and helps to estimate the amount of data to be exported to a CD or similar.



3.3 Navigation bar

In the navigation bar, all loaded images, series or documents are shown as preview images. Series of MR and/or CT images are shown in two columns. To unfold the series click on "+" in the upper right corner. All images of this series can be represented in two, three, four or six columns. The advantage of this representation method is that you can navigate faster inside a series. Required images are found faster.



The thick red line indicates that a series of images is loaded. The small black point in the line shows the position of the image in the series. Here the 8th image of 25 is represented.

Unfolds the series

Number of images of a series (1 / 67) = the 1st image of 67

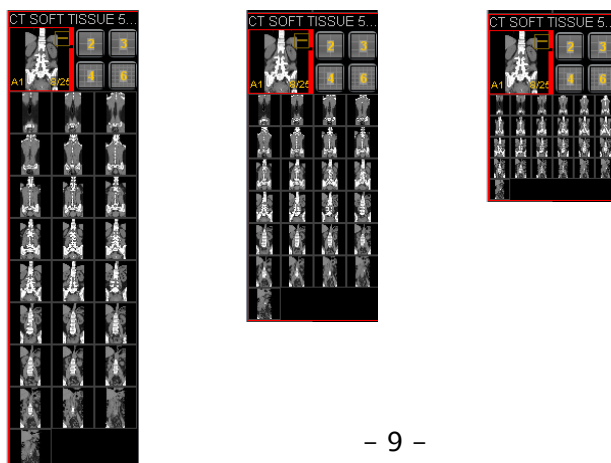
Images are arranged in 2 columns (as in this example)

Images are arranged in 3 columns

Images are arranged in 4 columns

Images are arranged in 6 columns

Representing a series in 3, 4 and 6 columns:

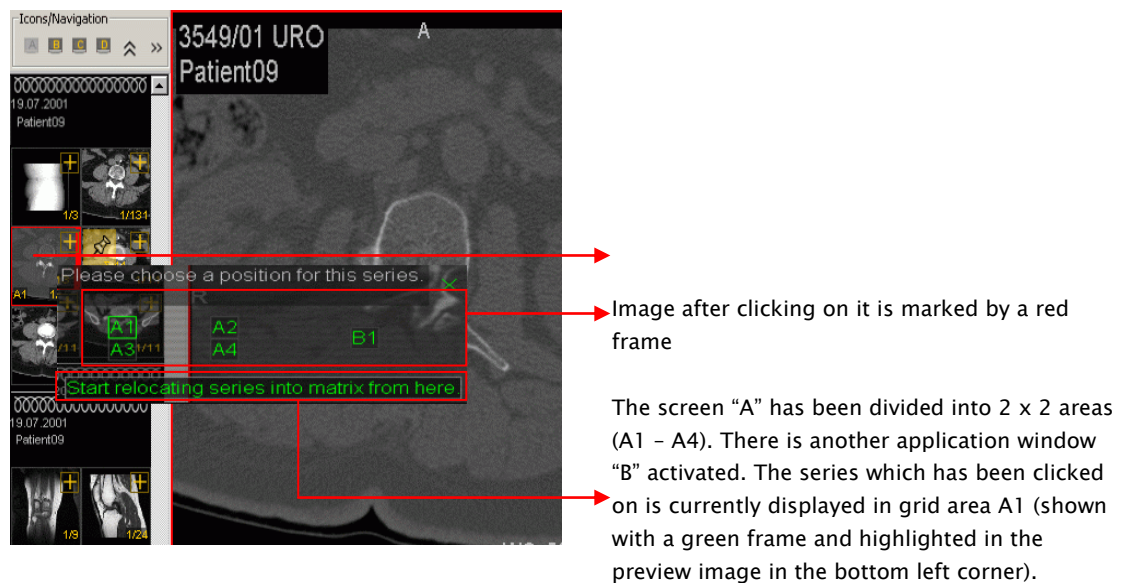


At a mouse click on a preview image, the image will be shown in a 1 x 1 grid in the working area.

If the working area is already divided by a grid, e.g. 2 x 2, 4 x 5 or others, a click on a preview image or series will produce a dialog box for choosing the grid area where it is to be displayed.

If more than one application window is open (activate new display) the grid distribution of all open windows will be available to choose from. Thus, it is very quick and easy to display any image or series in the required grid area from any of the activated displays.

There is also an option to automatically display all images or series consecutively in all available grid areas, beginning with the image first clicked on.



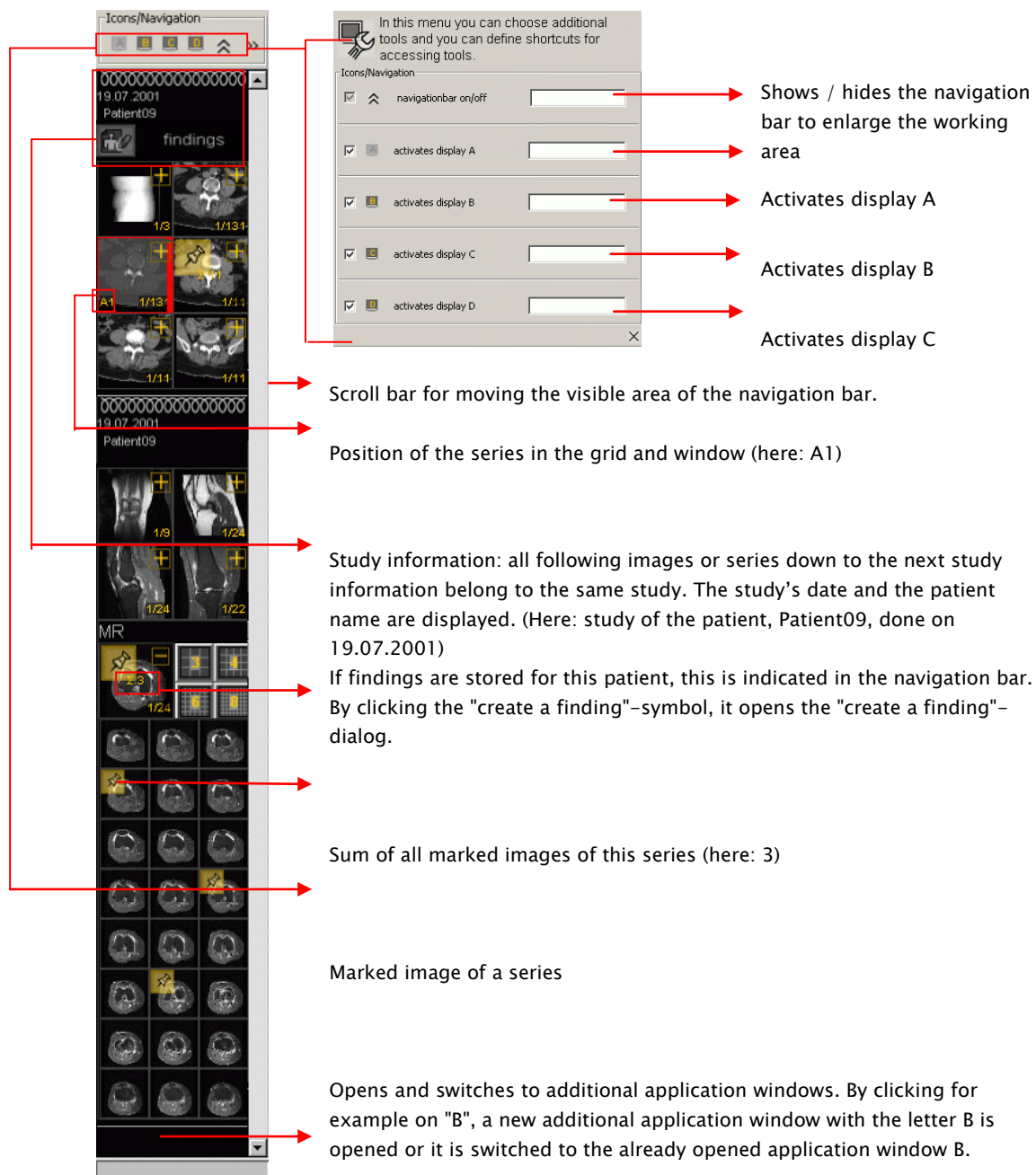
When many images are loaded, the visible part of the navigation bar may be moved using the scroll bar or the mouse wheel.

The activated select image tool may also be used on the preview images. When picking up a series, all images are automatically selected or if the series is unfolded, also individual images of the series can be marked. The yellow Σ and the number following it indicate the total number of selected images in a series.

Individual slices of a series can be also marked, as the desired images are transferred first to a grid field of the working area. Then the series panel

may be used to display the images separately and select them with the select image tool. Each selected slice will be allocated a serial number (in yellow). The total number of selected slices in the series is displayed in the corresponding preview image in turn.

All highlighted images are available for further actions, e.g. printing, exporting, saving on a patient CD, re-sorting or similar.



The image shows a vertical navigation bar on the left and a settings dialog box on the right. The navigation bar contains a grid of image thumbnails, some with yellow highlights and serial numbers. The settings dialog box has several options with checkboxes and input fields. Red arrows point from the annotations to the corresponding elements in the interface.

- Shows / hides the navigation bar to enlarge the working area** (points to the 'navigationbar on/off' checkbox)
- Activates display A** (points to the 'activates display A' checkbox)
- Activates display B** (points to the 'activates display B' checkbox)
- Activates display C** (points to the 'activates display C' checkbox)
- Activates display D** (points to the 'activates display D' checkbox)
- Scroll bar for moving the visible area of the navigation bar.** (points to the scroll bar in the navigation bar)
- Position of the series in the grid and window (here: A1)** (points to the 'A1' label on a thumbnail)
- Study information: all following images or series down to the next study information belong to the same study. The study's date and the patient name are displayed. (Here: study of the patient, Patient09, done on 19.07.2001)** (points to the patient and date information)
- If findings are stored for this patient, this is indicated in the navigation bar. By clicking the "create a finding"-symbol, it opens the "create a finding"-dialog.** (points to the 'findings' icon)
- Sum of all marked images of this series (here: 3)** (points to the '3' in a yellow box on a thumbnail)
- Marked image of a series** (points to a yellow-highlighted thumbnail)
- Opens and switches to additional application windows. By clicking for example on "B", a new additional application window with the letter B is opened or it is switched to the already opened application window B.** (points to the 'B' icon at the bottom of the navigation bar)

3.4 The working area

The working area is used to display the loaded images. Additional information on the images, such as patient name, date of birth and examination details may be shown (see tool “annotations on/off”).

The tools and settings from the toolbar always apply to the currently “active” image. An image is activated by a mouse click on it or by positioning the mouse cursor over it and turning the mouse wheel. A red frame around the image confirms its active status.

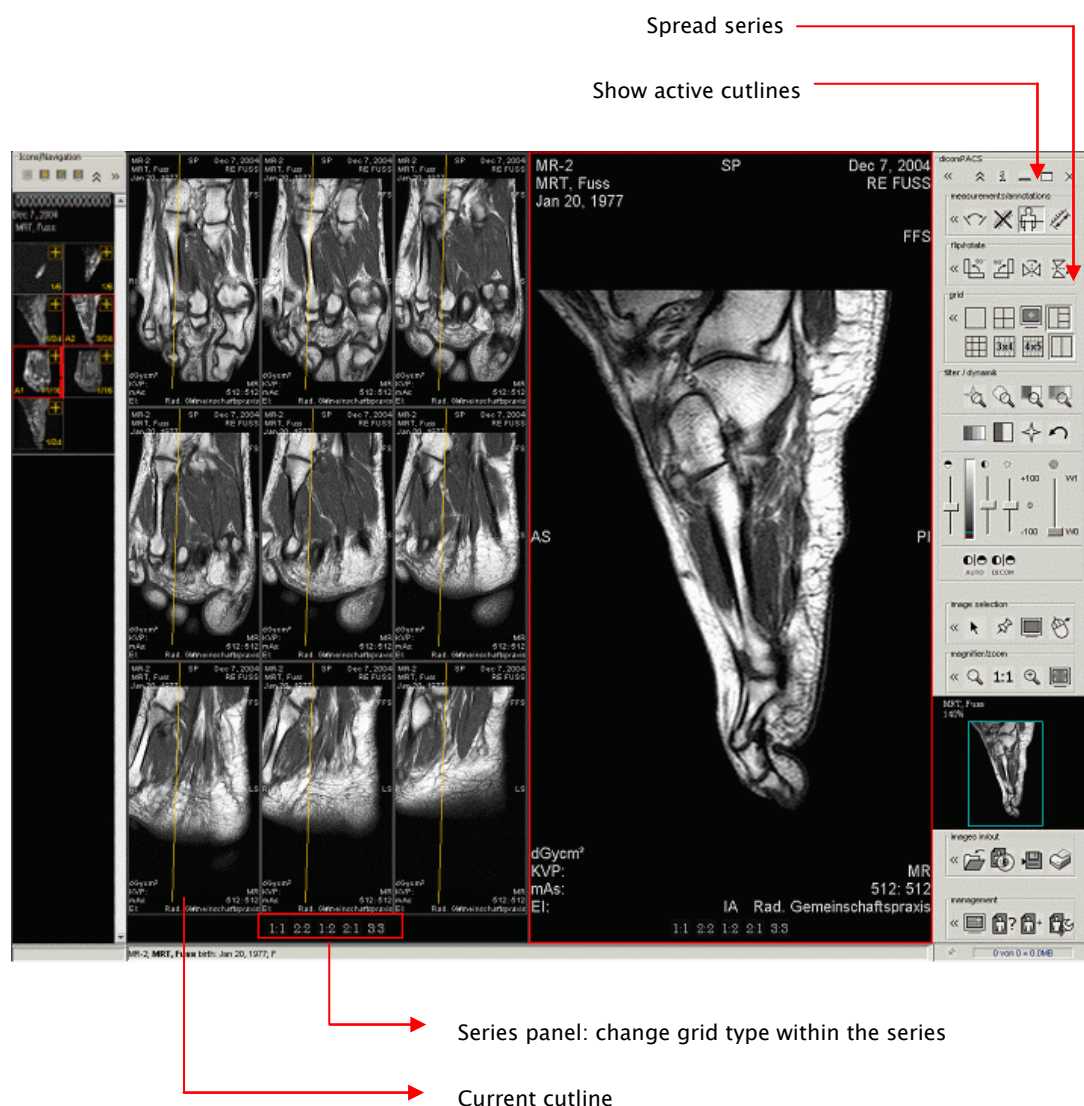
A yellow number represents a selected image and indicates the image’s position within all currently selected images of its series when using the select image tool.

If an image is magnified in its grid area it may be moved within this area with the left mouse button held down.

Several symbols giving additional information about an image may be shown near the upper or lower edge of an image, for example that the image is not archived.

There are two main tools available for working with CT and MR image series in the working area: the series panel and the tool “show active cutlines”. If one or more series of images are displayed in the working area grid and the mouse cursor is positioned in the respective grid area, the mouse wheel can be used to scroll through the series (also in a grid area).

In addition, the series can be distributed within any selected grid, so that each image is displayed. To activate this function, please click on the icon “spread series” in the grid area. To show cutlines in corresponding images, please use the icon “show active cutlines”.



An image can be moved within its grid area with the left mouse button held down (PAN tool).