

# Dragonfly®

**AVIMARK<sup>®</sup>** 

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### TABLE OF CONTENTS

Dragonfly Overview	3
Toolbar	3
Information Bar	5
Navigation Bar	6
Working Area	9
Tools and Shortcuts Overview	10
Configuring Tools within Dragonfly	16
Associating Radiograph Codes	18
Creating a Radiograph Request in AVImark	19
Reconciling Emergency Captures	22
Reassigning Images through Dragonfly	24
TPLO Measurement	27
TTA Measurement	28
Distractions Index	29
Buchanan's Vertebral Heart Score	30
Printing the Request Status List	31
Importing Images from a Digital Device	32
Sending Email through Dragonfly	35
O&R Setup	35
Manual Setup	36
Creating Patient CDs	39



### **Dragonfly Overview**

Dragonfly is an easy-to-use digital imaging processing program for viewing, transferring, and archiving images. Any image from any device (x-rays, CT, MRI, ultrasound, endoscopy, digital camera), and any type of document (diagnostic findings, patient histories, faxes), can be stored in a Dragonfly digital file and accessed immediately by a mouse click.

#### Toolbar

The toolbar is divided into separate areas. Each tool area contains a number of tools belonging to a thematic group. The area "Administration", for example, contains all tools for loading images, entering new patients etc. The area referred to as "Image Acquisition / Output" holds all tools for acquisition and output of images, e.g. video recordings, scanning, printing etc.

Depending on requirements and usage, the icons visible in the toolbar 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 uncomplicated way of customizing the user interface and the availability of tools for individual needs.

All settings can be adjusted by clicking on the 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.

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.

When the zoom function is being used, a green frame in the overview area marks the part of the image currently visible in the working area. 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 shows the current zoom factor of the active image compared to its original resolution in pixel. At 100%, a pixel on screen corresponds to a pixel in the original image.

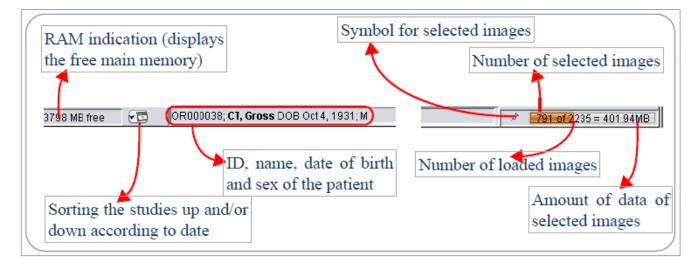


	Tool (icon	) Keybo	ard shortcut				
			1				
		menu you can choose additiona	I tools and define s	hortcuts for a	accessing tools.		
	🔲 manag						window level values     autolevel/leveling
Show/Hideicons							addition of the second se
on toolbar 🛛 🗲		search for archived images	F9		key words for statistic		<pre>   radiology tools </pre>
							hanging protocols
	⊻ 🚹+	add patient	F10		recovery	_	image selection
							@ k 🔲 🍫 🕱
		study preview	F8		daily visual check	_	magnifier/zoom
	- 6						
		archive			logoff		Unknown
							138%
		archive snapshot			reset all modifications		
		add images to presentation					
		folder			system preferences		
		presentation folder			start remote support application		images in/out
		mark as seen					
		mark as seen			reassign/ delete images		
		acata a finding					
		create a finding					management
	B						
	J				Hides confi	gurator ←	Tool Ar
	configuration dia	alog box					Show/hide configurator
Ior the mana	gement tools						



#### **Information Bar**

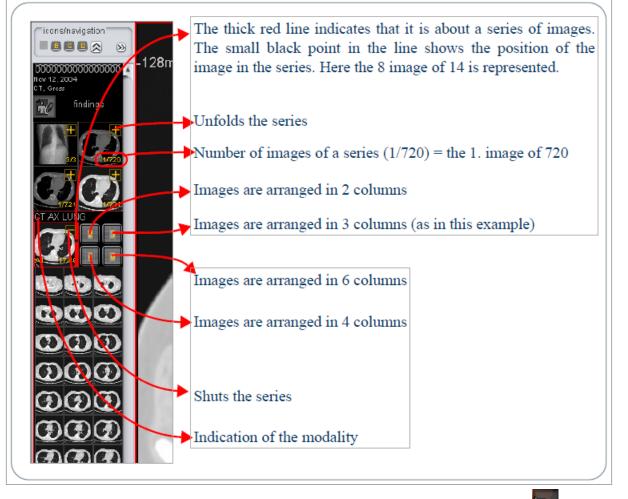
The Information Bar provides the patient data for the currently loaded images and the total size of all selected images. This information is given in MB (megabytes) and helps to estimate the amount of data to be exported to a USB or other external storage device.





#### **Navigation Bar**

On 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. With a mouse click on "+", in the upper right corner, a series is unfolded. All images of this series can be represented in three, four, six, or eight columns. The advantage of this representation method is that the user can navigate faster inside a series. Required images are found faster.



Video recordings are marked in the Navigation Bar by a video camera symbol E, which provides a better distinction between normal images and video sequences.

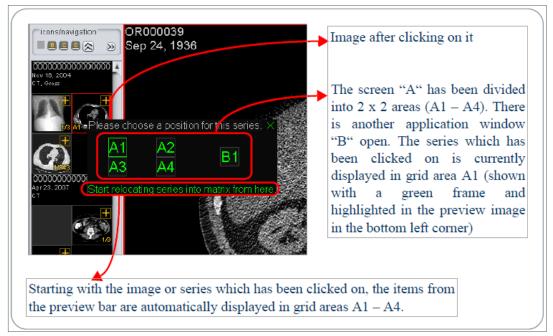
Click the mouse on a preview image, the image will be shown in a  $1 \times 1$  grid in the working area.



If the working area is already divided by a grid, e.g.  $2 \times 2$ ,  $4 \times 5$ , etc., click on a preview image or series to produce a dialog box to choose the grid area where it is to be displayed.

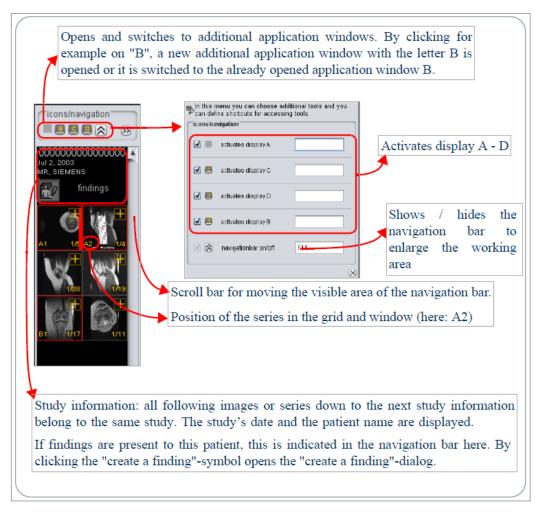
If more than one application window is open, the grid distribution of all open windows will be available to choose from. It is a quick and easy way to display any image or series in the required grid area from any of the open application windows.

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

Individual slices of a series can be marked, as the desired images are transferred first to a grid field of the working area. The series panel may be used to display the images separately and select them with the pick-up 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 to an external storage device, re-sorting or similar.



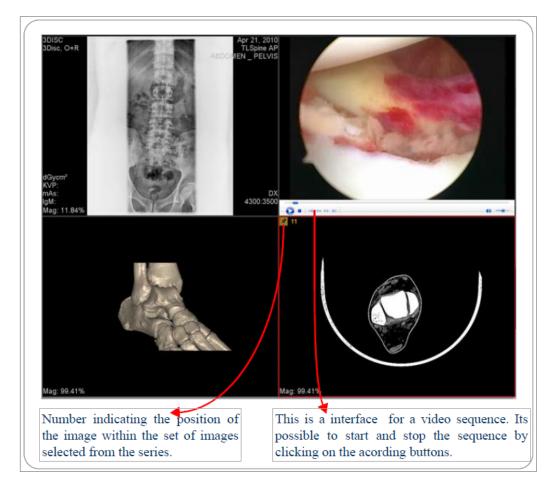
#### Working Area

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. The annotations are configured by an engineer.

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.

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





### **Tools and Shortcuts Overview**

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.

There are tools (rotations, flips, or display of a specific grid) in the working area and are operated by a simple click. Activate the image for which to apply the tool. Then apply the tool with a left mouse click or by pressing the allocated keyboard shortcut.

lcon	Functionality	Shortcut					
Annotation	s / Measurements						
called referen resonance in	f lengths or areas are to be measured in a specific measurement unit such as centimetres, a so- called reference scale is required. Modalities such as CT (computer tomography), MRI (magnetic resonance imaging), CR (computed radiography) or DR (direct radiography) usually include this reference scale in their images. Measurements may be taken at once.						
In order to measure images that do not contain a reference scale, e.g. images acquired from an analog source such as arthroscopy, the reference scale has to be defined before measuring. This process is called calibration.							
	on, a distance of a known true length is marked in the image. This distar the arthroscope, a ruler added in by the machine or other image details meter.	•					
	asuring process by left clicking on the 📝 icon. Then find the starting p						
	e marked. Click and hold the left mouse button on the starting point and	•					
and measuri	er to the finishing point. A window will open automatically to enter the k ng unit.	chown volue					
I'M A	Measure distances						
$\langle \rangle$	Measures angles						
(1) abc	⊾ Add text						
-6	Draw arrows						
DEL	Delete single annotations						



lcon	Functionality	Shortcut
Suu)	Edit, change or move single annotations	
<b></b>	Hide or show all entered annotations	
S	Draw elliptical shapes	
5	Delete all annotations from an image	
?/	Calibrate images	
$\Box$	Measure open or closed polygon shapes	
9	Draw a rectangle for the calculation of a black border	
₩D/	Measure hip dysplasia	
PID	Insert TPLO measurement	
Vite	VHS According to Buchanan measuring for heart enlargement	
Image Sele	ction	
x2	Select images, pick-up tool	
R.	Select all images	
*	Remove selection from all images	
	Sort and display all selected images in numerical order (only within series)	
	Remove all images from the display	Space
$\bowtie$	Remove single image from the display	х
k	Standard cursor (deactivates the selected tool)	Escape (Esc)



lcon	Functionality	Shortcut
Ð.	Allocate tools to the right mouse button	
100 M	Cogwheel function for synchronous scrolling through series	
Ъ	Scrolling through a series (also in the grid) while holding left mouse button	
Zoom		
Q	Magnifying glass enlarges image details	М
100 %	100% representation of the image, i.e. 1 image pixel equals 1 screen pixel	Num Lock: x
Ð	Enlarge the selected image	Num Lock: +
	Adjust image size to selected grid	Num Lock: -
	Adjust the image or document to display width	
1:1		
Q	Activate and deactivate the black border	
Ľ⊙ <b>€</b>	Zooming with the left mouse button	
Image Acqu	isition and Output	
	Print images	Ctrl + P
	Export images	F2
Í	Import images	F3
	Create a patient CD including viewing software	
à	Scan documents or films	



lcon	Functionality	Shortcut		
	Start video image acquisition / video recording			
Mr	Open the statistics dialog			
87 46	Teleradiology: send images and findings to other DICOM recipients			
6	Create different reports			
	Change to PMS (patient management system)			
Ø	Start external dictation environment			
Ex2	Create copies of images			
	CD import: Import of data from patient CD's, other data media and listings into the Dragonfly archive			
Ĩ	Copies an image to the clipboard			
Ĩ	Insert an image from the clipboard			
<b>WWW</b>	Web sharing of images and findings with selected users			
a contraction of the second se	Configuration of the settings for the specified tools			
Image Adm	inistration			
	Open the patient and statistics information dialog			
	Archive new or imported images			
<b>6</b> ?	Start patient and image search	F9		
Be	Delete images or allocates new patient data to images			
<b>*</b>	Add new patients and calls up work list	F10		



lcon	Functionality	Shortcut				
	Study or image preview for the activated patient	F8				
23	Recover not yet archived images					
	Set the diagnostic status in database; (mark as seen)					
E/	Creation, sign and review of findings to the current study					
۲	Execute the daily visual check					
<b>9</b>	Login and/or logoff to the Dragonfly viewer					
*	Archive the current image as a snapshot					
Filters / Dyr	namics					
with diagna	of images can be adjusted with filters in order to see further or new det osis and findings. In these cases, the image data is processed by the filte ch means that the image shown is not an exact reproduction of the orig	ers (e.g. grey				
Q	Invert the image within the magnifying glass					
Eq.	LUT (Look Up Table) within the magnifying glass					
Q	Relief filter within the magnifying glass					
0	Definition filter within the magnifying glass					
Q	Specialized filter within the magnifying glass					
Q	Soft focus filter within the magnifying glass					
0	ldeal contrast filter (available for magnifying glass only)					
	Invert the whole image					



lcon	Functionality	Shortcut
*****	Relief filter applied to the whole image	
$\diamond$	Definition filter applied to the whole image	
H	Specialized filter applied to the whole image	
$\bigcirc$	Soft focus filter applied to the whole image	
	Display predefined window / centre values (from DICOM tags and other sources)	
Ľ ∎)⊝	Window leveling with the left mouse button	
5	Remove all filters and adjustments displays original image	
₽ A	Solution Configuration of the settings for the specified tools	
Other		
$\times$	Exits Dragonfly	
$\Rightarrow$ $\Rightarrow$	Hide or show navigation and tool bars	
$\ll \gg$	Hide or show further tools in a section	
?	Help function	
ĩ	List all DICOM tags incorporated in the image	
	Maximize the Dragonfly application window	
_	Minimize the Dragonfly application window	
	LUT (Look Up Table) applied to the whole image	



### **Configuring Tools within Dragonfly**

The tools within Dragonfly can be configured to display only the tools that are specific to each clinic's needs. The tools can be configured by clicking on the double arrows << located on the Dragonfly heading under the Dragonfly tools on the far upper right corner.



**1.** Click the wrench icon for configuration once the next window opens:

₹?	help	F1
<b>V</b>	info	1
3 🔕	toolbar on/off	F12
<b>y</b> 🗆	maximize window	
<b>v</b> -	minimize window	
	quit Dragonfly	

- 2. Click on the *icon* for the configuration, then click on the "GUI / Toolbar ?" tab and all of the tool categories will be displayed.
  - To remove an entire category of tools, uncheck the category check box and it will hide the entire category group.
  - To hide tools belonging to one of the categories, simply click the >> on the category and it will open a window displaying all of the tools.



- 3. Uncheck the check boxes for the tools to hide. Remember, these settings are workstation specific so adjusting the tools on one computer will not save the settings on all computers.
- 4. Once configuring all of the tools is complete, click the save option and the toolbar will be set.

V Re	euse last set grid after	resta	art	
$\checkmark$	annotations	»	🗹 🥢 distance	HD measurement
	flip/rotate	»	<ul> <li>✓ ∽ angle</li> <li>✓  \<sup>10°</sup> vertical aberrancy</li> </ul>	Center line
<b>V</b>	grid	»	M horizontal aberrancy	✓ +++ center point
	magnifier filter	»	<ul> <li>✓ I ≈ text</li> <li>✓ arrow</li> </ul>	<ul> <li>✓ <sup>P</sup> corrective osteotomy</li> <li>✓ <sup>P</sup> TPLO measurement</li> </ul>
V	filter	»	☑ _	TTA measurement
V	filter slider		<ul> <li>✓ □ polygon</li> <li>✓ ellipse</li> </ul>	<ul> <li>✓ Question index</li> <li>✓ cross distance</li> </ul>
V	autolevel/leveling	»	Calibrate image	VHS according to Buchan
	window level values	»	<ul> <li>✓ ▲ density within a line</li> <li>✓ ▲ density within a quadrilateral</li> </ul>	G draw/edit blackborder     edit an annotation
	radiology tools	»	density within an ellipse	I annotations on/off
	hanging protocols	»	Show active cutline	<ul> <li>✓ DEL remove an annotation</li> <li>✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ <p< td=""></p<></li></ul>
V	image selection	»	☑ 📌 insert a prosthesis	
V	magnifier/zoom	»		
_				



# **Associating Radiograph Codes**

- **1.** To associate a code with the modality within AVImark, go to **Work with > Treatments**.
- 2. Find the treatment code to associate.
- **3. Right-click > Change** on the Code.
- 4. Click on the Laboratory tab.

Treatment Ad	vanced Contract I	Prices Documents White	board Laboratory Ass	sociated Entries
Radiographs	Instrument Types	Labs		
Provider	Modality	Description	Study List Type	[
Historica Chil	Modality (none)	Description Radiograph Request	Study List Type None	

5. Right-click > New and the source should be Dragonfly, the AE Title should default to the AE title associated in the DICOM Modalities Table. The Shot Description drop-down should show all of plan codes that were set up in the DICOM Modalities table and by selecting this it will automatically fill in the Code.



# Creating a Radiograph Request in AVImark

- 1. To create a request in AVImark, with the patient selected, go into the patient area and **right-click** > **Radiography** > **Create Request**. This will open the DICOM window.
- 2. Within this window, click to highlight the appropriate shot description and use the space bar to select it.
- 3. Select a **Doctor** from the drop-down list to assign the request and click **Done**.
- 4. In the notes window, enter any notes pertaining to the radiograph shots (skull, left leg, front left paw etc.)

H DICOMs	- 44	80.1	4	041		
Radiograph Source Dragonity		•	Doctor	AC: Alfea Crensha	aw 👻	
Description	Code	Price		Shot Count		
Digital X-Ray - Additional View	RU149		0.00	0		
Digital X-Ray - Two Views	RU152		0.00	0		
Digital X-Ray - One View Only	RU154		0.00	0		
Description	Code		ice			
Digital X-Ray - Two Views	RU15	2	0.00			
					V Done	X Cancel

5. This will place the request in the patient's medical history and send the request to the modality (CR, DR, etc.).



Medical Date	Time		Туре	Code	Description	Qty	Amount	By	Photo Publ	Attachments
08-11-11	4:37p	BH2	S	RU152	Digital X-Ray - Two Views	1	0.00	BH2	Ye -	Contal Chart
05-10-11	1:36p	BB1	S	5580	Radiograph , 2 views	1	165.00	881	Ye	Form
05-10-11	1:36p	BB1	S (m)	5561	Radiograph Single	1	65.00	881	Ye	Inventory Used
05-09-11	3:39p	CO1	V	SOAP	Patient check-in			AC	Ye	Medical Condition
05-09-11	3:39p	CO1	S (m)	5580	Radiograph , 2 views	1	110.00	CO1	Ye	More Stuff
05-03-11	4:43p	JBS	1	030144	Fluoxetine tabs 10mg #100	101	1079.66	AC	Ye	
05-03-11	4:42p	CO1	1	030144	Fluoxetine tabs 10mg #100	100	1069.00	AC	Ye	T Notes
05-03-11	4:36p	C01	1	030144	Fluoxetine tabs 10mg #100	120	1282.20	AC	Ye	Photograph
05-03-11	2:28p		V	SOAP	Patient check-in			AC	Ye	T Attachments
04-08-11	1:28p	BH2	S	5185	Anesthesia IV - Feline	1	37.00	AC	Ye	T Vaccination
04-08-11	1:28p	BH2	S	5051	Anesthesia (Intramuscular)-Exotic	1	47.00	AC	Ye	Tests
12-04-10	11:25a	BB1	l (n)	59613P	Plus Frontline K-9 0-22lbs. 6 mos	1	73.00	JVB	Ye	Radiographs
12-04-10	11:25a	BB1	l (n)	27370	Interceptor K-9 1-10lbs 6 MOS. (brown)	1	35.99	JVB	Ye	ie naulographis
07-10-10	6:15p		S	LMOM	Follow Up Call: post dental	1	0.00	CJW	Ye	
Chronolog	2.22		Diet	Injections	Lab / Rx /Reminder /Surgery /Vacct / X-R			Notor	Public Problems	
Childholdy	na len	synoae	a loier	mpecatons	ran ( ux / menimoer / serger) / vacce/ x-m	1 / 30	Ar Armoio	s /mores	Veranie (riourenia)	

- 6. On the modality, open the worklist to find the request that was generated.
- 7. Fill the request and send the images back to Dragonfly.
- 8. In the patient medical history record, find the request that was entered, highlight it and click the radiograph check box in the lower left corner to open and see the thumbnails of the shots taken.

<b>K Radiograp</b> Edit View He	hy Requests Status						_0
Provider	Description	Study List Type	Request ID	Status	Ordered Shots	Taken Shots	Modality
Dragonfly	chest	None	1421	Complete	1	6	(none)
Thorax D	IV Thorax DV	Thorax LAT	Thorax LAT	Thorax D	Thorax	VD	
					Set finalized	to false	🗸 Done

- 9. From within the radiograph requests status window, view the images and launch Dragonfly: rightclick on one of the images and there will be three choices: View this image, view study with this image, and view all images for this patient.
- **10.** Click on one of these options and it will launch Dragonfly with the viewer.



	Description	Study List Type	Request ID	Status	Ordered Shots	Taken Shots	Modality
Dragonfly	chest	None	1421	Complete	1	6	(none)
10.00		10000	and the set			-	
A0050007	k 02250k	10 A					
1/2	2000		Contraction in the		1000	View This Image	
4		1929	100				
Thorax D	DV Thorax DV	Thorax LAT	Thorax LAT	Thorax (	DV Thorax	View Study With	
Thorax D	DV Thorax DV	Thorax LAT	Thorax LAT	Thorax (	DV Thorax		
Thorax D	DV Thorax DV	Thorax LAT	Thorax LAT	Thorax (	DV Thorax	View Study With	

• There are additional options that can be accessed by right-clicking in the area below where provider, AE Title, Description etc., are located.

Provider	Description	Study List Type	Request ID	Status	Ordered Shots	Taken Shots	Modality	
Dragonfly	chest	None	1421	Complete	1	6	(none)	
Thorax D	DV Thorax DV	Thorax LAT	Thorax LAT	Thorax D	V Thorax	Digital E-Mail Reque	-	> > > > > > > > > > > > > > > > > > >
					Set finalized	to false	<ul> <li>✓</li> </ul>	Dor

- **Edit** Undo or Redo any changes made in this window.
- **View** Customize columns, view entry history, refresh, show hide preview panel etc.
- View Images View the study or all images for the patient.
- Send to Web Publish the photos to a website for more published viewing.



- Burn to CD or Folder Burn the study or photo to CD or to a flash drive.
- Digital Imaging Send Send the image(s) to DICOM recipients who are saved.
- E-Mail Email the image(s) in jpg format. (E-Mail must be setup within AVImark to use this function).
- Request Status To get images, set the finalized to true, or set the status back to requested, so the user can get images again (this option gives the ability to get all images from the study in case the radiographs window is opened before all images have archived from the modality).

# **Reconciling Emergency Captures**

AVImark provides for emergency captures to be reconciled with the patient after the image has been taken.

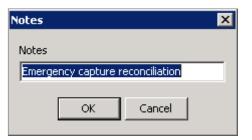
- 1. Right-click in the patient area and choose Radiograph > Create Request.
- 2. In the Request window, first choose a **Doctor** associated with the images.
- 3. Click on the Dragonfly menu and click on the **Reconcile from Emergency List to Current Patient**. A list of captures that haven't been reconciled to any patient will be displayed.

M DICOMs					- 🗆 ×
M Dragonfly PACS View					
<ul> <li>Reconcile from Emergency List to Current Patient</li> <li>Local BDT and dicomPACS Paths</li> </ul>		Doctor	(none)	•	
Description	Code	Price	Shot Count		
Radiograph Single	5561	65.00	0		
Digital X-Ray - Two Views	RU152	0.00	0		
Digital X-Ray - One View Only	RU154	0.00	0		



	Radiog	raph Source	Pragonfly	•	Doctor	AC: Alfea Cre	nshaw 💌		
)esc	ription		Code	Price		Shot Count			
adio	ograph Single		5561		65.00	(	)		
g 🖡	Dragonfly PACS	Emergency Capl	ture List				_	_ 🗆 ×	11
g			1			1			
Ť	Study ID	Date	Description					^	
	1.2.826.0.1.3	08/02/2012	Thorax DV						
	1.2.826.0.1.3		Thorax LAT						
	1.2.826.0.1.3		Lumbar spi						
	1.2.826.0.1.3		unknown p		re code :				
	1.2.826.0.1.3		Sacral bon	e VD					
	1.2.826.0.1.3		Elbow LAT						
	1.2.826.0.1.3		Femur VD						
	1.2.826.0.1.3								
	1.2.826.0.1.3								
	1.2.826.0.1.3		<b>c r</b>						
	1.2.826.0.1.3		findings an Elbow LAT	d docur	nents				
	1.2.826.0.1.3		Skull DV						
	1.2.826.0.1.3		Mandible (	hlique					
	1.2.826.0.1.3		Thorax DV						
	1.2.826.0.1.3		Cervical sp		tebrae c				
	1.2.826.0.1.3		Cervical sp						
	1.2.826.0.1.3		OFA	(***					
	1.2.826.0.1.3	10011100011	unknown p	rocedu	e code :				
	1.2.826.0.1.3		unknown p						
	1.2.826.0.1.3	09/12/2011	llium (HD) \						1
	1.2.826.0.1.3	09/12/2011	findings an		nents				
	1.2.826.0.1.3	09/12/2011	findings an	d docur	nents				
	12926013	09/22/2011	findings an	d docur	nonte			-	

4. Click to highlight the entry then click **OK**. This will reconcile the image to the following message.



5. The images will then appear on an entry using the digital x-ray additional shot code.

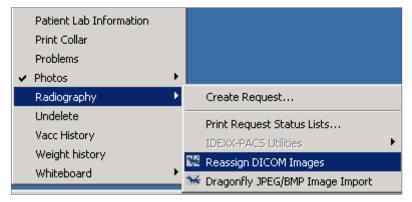


Provider	Description	Study List Type	Request ID	Status	Ordered Shots	Taken Shots	Modality
Dragonfly	Emergency Capture	None		Complete	3	3	(none)
	1000	B					
		0					
	52						
unknow	m Sacral bone VD	Lumbar spine					
unknow procedure o	m Sacral bone VD	Lumbar spine LAT					
	m Sacral bone VD						
	m Sacral bone VD				Set finalized		

### **Reassigning Images through Dragonfly**

Reassign images assigned to the wrong client and patient.

1. Right-click in the patient area and go to Radiography > Reassign DICOM Images.



2. The following prompt will appear:



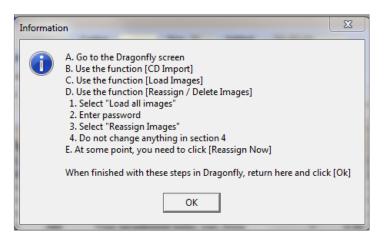
Confirm	<b>X</b>
?	This function is for assigning DICOM images only. Reassign DICOM Images?
	Yes No

- 3. Click Yes on the message to Reassign DICOM Images. This will launch the Dragonfly viewer.
- 4. Open the search for archived images window with F9.
- 5. Click to select the image(s) to reassign and click the load images option.
- 6. Once the images are in the viewer, click the reassign/delete images icon under management to get the following window:

C perma			lity to reassign new pati count for these operatio						ie
. Changes will	be done for	the c	urrent image 0			With reports Reports only			
. User authent	tication				What do you want t	o do?			
	user	support	•		Ē	reassign images	/ patient data		
	password	••••			Ē	delete images	from archiv		
. Patient data	of the image								
id	401	→	401		Owner	Animal	PattD	DOB	
titel				_			1421		A
uter				_	2012.2, Test	Antech Test	1419	01/31/	
Animal	Luna		Luna		Ables, Scott & Lisa	Calvin	53	07/31/	1
Owner	Monson, Ha	-	Monson, Hans		Ables, Scott & Lisa	Gorbi	51	04/01/	-111
Owner	Monson, Ha	#15	monson, mans		Adams, Amanda Adams, Danielle	Cat Madison	1 25603	02/09/	-
date of birth	Oct 31, 200	1	10/31/2001		Adams, Danielle Adams, Henry	Domino	825	09/01/	
sex	F		F		Adams, Kyle	Fluff	15	11/19/	
Sex	· ·		r		Adlong, Charles	Bo	419	01/01/	11
6					Aldrighette, Andrea	Dutchess	36	10/31/	
	2 Take	over patien	t data from PMS		Aldrighette, Andrea	Dutchess	WJQ36	10/31/	
L					Alexander, Albert	Buffy	655	11/30/	
					Alford, Bruce	Brandon	767	05/01/	٣

- 7. The information of the patient will show up and click the option to archive. Enter the user which is support and the password is the password of the day that the DICOM support team will provide.
- 8. Click the option to reassign now and then minimize or close the viewer.
- 9. Click **OK** on the message in AVImark as shown below:





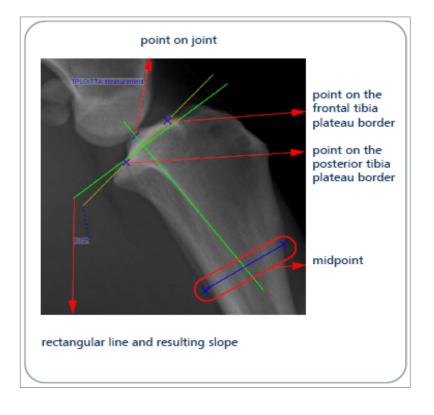
- **10.** Refresh the AVImark screen with F11 and it will show an import entry.
- **11.** Click the radiograph attachment check box after highlighting the entry and see the images reassigned to the new entry and patient.



### **TPLO Measurement**

The TPLO (Tibial Plateau Leveling Osteotomy) measurement allows the angular measurement of the tibia plateau.

Configuration of the midpoint of the tibia at the tuberositas tibiae and the point on the joint. Set a point at the frontal and the back border of the tibia plateau and get a resulting line (olive), the third line, rectangular to the first line, allows the slope measurement of the medial tibial condyle, between the second and the third line.

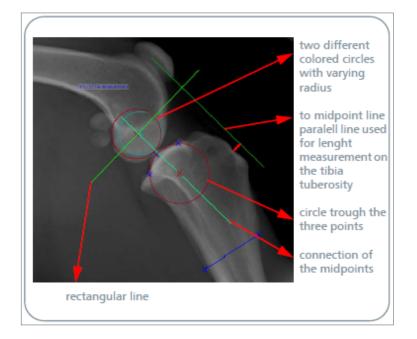




# TTA Measurement

The TTA measurement is used for the measurement of the parallel shifted length measurement at the tibial tuberosity.

The three points of the TLPO serve as the basis of the circle. Two other circles, each with variable center and radius are located. The middle between the centers will be connected to the other circle center. Two additional lines are rectangular to the other one so that a parallel displaced length measurement of the tibia tuberosity is possible.

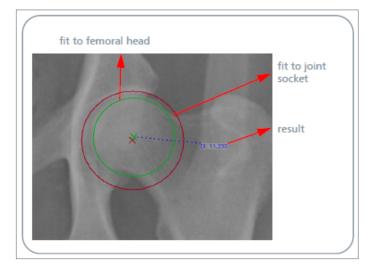




# **Distractions Index**

The Distraction Index  $\boxed{0:143}$  measures the looseness of the hip joints.

The degree of displacement of the femoral head from the acetabulum of the hip joint in relation to the radius of the femoral head is determined by two circles. The green circle is placed on the femoral head and the red circle on the joint socket of the hip joint.



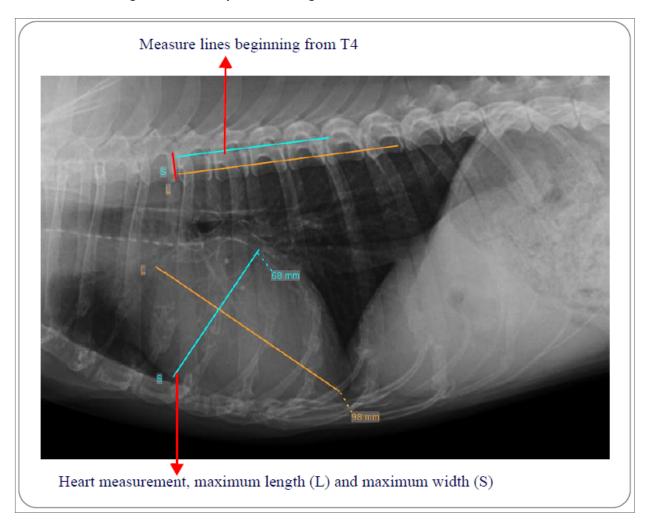


# Buchanan's Vertebral Heart Score

This annotation  $\boxed{v_{ns}}$  is a simple and reliable method to determine the size of the heart.

It has been designed specifically for cats and dogs. The height and width of the heart are put into relation to the individual animal's vertebral body width. Therefore, racial distinctions are brought to bear on the examinations results. The Vertebral Heart Score (VHS) is measured by the long axis (L) and the short axis (S) which are transposed onto the vertebral column and recorded as the number of the vertebrae beginning with the cranial edge of T4.

To use the functionality, measure the heart height and width by using the annotation. Both lines can be moved and enlarged individually but the angle between them cannot.





### **Printing the Request Status List**

- 1. In AVImark, **right-click** in the patient area and go to **Radiograph > Create Request**.
- 2. Within the request window, click **View > Print Request Status Lists**.

🐝 DICOMs						_ 0
🐝 Dragonfly PACS	View					
🛛 🗟 🖄 🔤 Ra	Treatment List Print Request Status Lists		Doctor	(none)	•	
Description		Code	Price	Shot Count		
Radiograph Single		5561	65.00	0		
Digital X-Ray - Tw	o Views	RU152	0.00	0		
Digital X-Ray - On	e View Only	RU154	0.00	0		

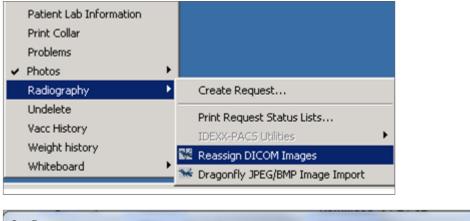
Radiograph I	Requests		×
Provider	Dragonfly	-	
Status	Complete	•	
Start	8/1/2012	•	
End	8/31/2012	-	
Print To	PDF995		•
Previe	w	Print	✓ Done

3. Click on the appropriate status, select a start/end date, and click Print.



# **Importing Images from a Digital Device**

1. Right-click in the patient area and go to Radiography > Dragonfly JPEG/BMP Import.



Confirm		(manual)		(manual line)	23
?	This function is for imp Are you sure you want If so, be sure to select a	to import non-D	ICOM files for the curre	ent patient?	-
		<u>Y</u> es	No		

2. Dragonfly will open. Click on the import option 🖾 . From there, browse to the camera or folder which contains the image.



😽 Import image	es	
Look In:	AAUC Images	💽 🕋 🏠 🔳
Cody.JPG		✓       preview
File Name:	Willow1.JPG	
Files of Type:	images and videos	
		Import images Cancel

- 3. Click the **Import Images** button and this will load the image into the viewer.
- 4. Click the archive option in the Dragonfly Viewer. The archive window will open and the user can select the current image, selected images... etc. The client and patient information will be filled in.



	The images will be archived with followi Please verify data!	ng patient data			
Which i	mages would you like to archive?				
	<ul> <li> the current image</li> <li> all selected images</li> </ul>		nt series (1) d images (1)		
Please	double check patient data				1
Please Owner	double check patient data Crenshaw, Veeanne	Owner	Animal	PatID	DOB
		Owner	Animal	PatID	DOB
Owner Animal	Crenshaw, Veeanne	Owner	Animal	PatID	DOB
Owner	Crenshaw, Veeanne BB48	Owner	Animal	PatID	DOB

5. Click the Archive option.



### Sending Email through Dragonfly

To send images through Dragonfly, the email account information must be configured to either send through a manual setup or through the O&R email setup.

#### **O&R Setup**

- 1. Click on the additional tools option << under images in/out.
- Click on the wrench icon (configuration tool) in the lower left corner of the window that opens for additional configurations.
- 3. Click on the sending emails button as shown below.

Configurati	on dialog						×
<i>₽</i>	You can configure the sare accepted.	settings for the spo	ecified tools. When clic	king the button 'Save'	all settings	Username Password	
S print	patient CD	export images	Practice stamp	lacktriang start scanning	💌 sending em	ails 🔐 webshare	

4. Below the email account option, click on "O+R Account" to highlight it so it becomes active. With this option, Dragonfly is now going to use the O&R email sending service to send email.

mail account:	
O+R Account (active)	New
	Edit
	Delete
	Default accourt
Email sender: alfea.crenshaw@avimark.net	



#### **Manual Setup**

To set up a manual account, below the email account information, click on **New**. When the "Create an email account" window opens, enter the information: **Host**, **User**, **Password** and click **OK**.

Remember, those who choose not to use the manual setup can still send images through email using the O&R setup and use their own return email address. Also, if more than one email account is configured, one account can be set as the default sending account by highlighting it and clicking on default.

Below, where it says "email sender", type in the email address for the sender in the "new sender address" field. Once it is entered, click the + above it and to the right and it will add it to the sender email field. Multiple sender emails can be added here.

alfea.crenshaw@avimark.net	
	+
New sender address	



Send images as zip file <u>Å</u> Show attachment size        0:     affea.crenshaw@avimark.net       0:     X + +	
x +	ddress bool
Template     Image: Arial       Arial     Image: Arial       Shearrer X-Rays       Please find attached the X-Ray image for Mellow Yellow	AA

Click on the option for the current image, all selected images, current series, or all loaded images. Select the format for the image to be emailed (remember that although the DICOM option appears, it can't be emailed because the file format is too large for email).

The show attachment size option will show exactly how large the email is and, depending on the recipient's email service, the file size may be limited by their ISP (internet service provider). The email can be sent with overlays and annotations by selecting the proper check box.

Enter the recipient's email address in the "to" field. Email addresses can also be saved into the Dragonfly address book by clicking on Address Book. Then click the "add a user" button. Addresses can be retrieved from this address book and added as a recipient.

Templates can also be set up and saved by clicking the pen and paper icon next to template. This will open a window for creating a template. Merge words are available by doing a right-click in this window to see the list.



Left-click on the word for the information to add and it will insert the merge word.

These merge words pull the information from the DICOM tag information so if the information is not present in the DICOM tag, it will not put the information in the body of the email.

Here you can manage your email templates. You     With the right mouse button you can add hyperliv Template:     Template:     E     E	Arial	[[Owner]] [[Animal]] [[DOB]]	Recipient data: EMail
(rays		[[Sex]]	Last name
ear {{First name}} {{Last name}} Please find attached images for			First name
Owner]] Animal[] DOB]]			Title
Sex]]			Alias
		o the following o	Location
ou have any questions feel free to give us a call. 877-838-9273		e the following s	Date of study
		alfea.crenshav	
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		THE OWNER OF	Animal
		10 million	DOB
		and the second sec	Sex
		1 A	PatiD
	2	1000	Modality
	Continue	100	Description

Upon completion of entering the text, click the save icon that looks like the little cassette. There are two other options: the paper icon is to add a new template and the trash can icon is to delete a template.

In the lower left, if there is more than one stored sender, choose a sender address and then click send. A message will appear stating the email isn't encrypted or if it is encrypted.



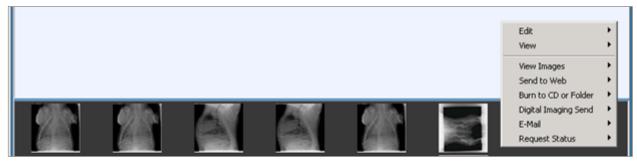
- Clicking yes to this message will give a message confirmation that the email has been sent. If it is an address saved in the address book, select encryption but the option won't be available if you do the email to an on-the-fly recipient.
- If encryption is used when adding a user to the Address Book, an encryption request key from the recipient is required. An email will be sent to the recipient requesting an encryption key.



### **Creating Patient CDs**

**Burn to CD or Folder**--- Allows users to designate a CD RW or a thumb drive to burn the images. A lightweight Dragonfly DICOM Viewer will be included. To burn a CD, the computer must have a CD burner installed.

1. Within the Radiography Request Window of AVImark right-Click > Burn to CD or Folder.



2. There will be the options of Choosing from All Images or From Study.

- 3. When Dragonfly is selected, this will open with the Create Patient CD window.
- 4. Under the Choose the images to Export, select Current Image or All Loaded Images.
- 5. To burn a CD for the existing client/patient, click Use Current Compilation.
- 6. To burn the images onto the CD, select Export to CD.



Create Patient CD Please, choose the images y will be added to the chosen c You can add more images/pa this compilation directly to CD Please, choose the images to export	ompilation. tients to this com	pilation or you can ex	port
<ul> <li> the current image</li> <li> all selected images</li> </ul>			
Please select	or		t compilation
check compilation Patient Sutton, Will, Marmaduke	DOB 27.06.2006	Patid 47001	images 3
remove selected entries	patients Jul 26, 20	discard this comp 011 9:40:28 AM -	pilation]
	vable Drive E:\	drive	
		L cance	A

- 7. Select the current image or all of the images for the patient.
- 8. Click the Add Data to Compilation.
- 9. Click the option to export to CD or export to USB keydrive. Either option will either create the CD or burn it to the flash drive.
- **10.** To add more images to the compilation later, use the save option to save what was added and additional images can be added.

