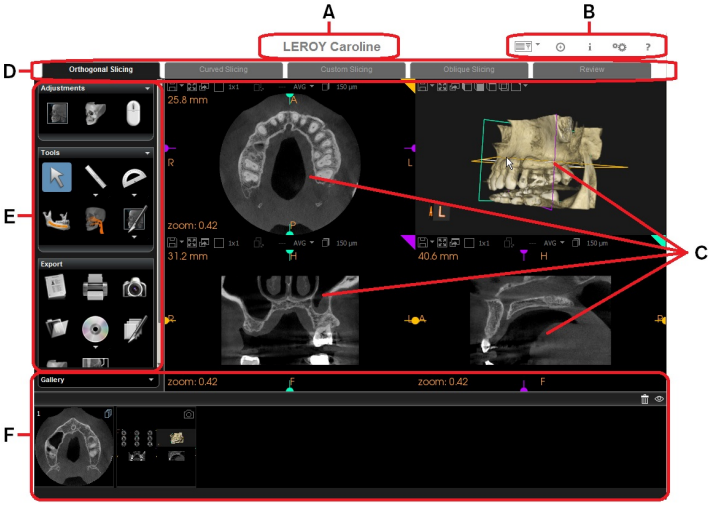
Overview

Interface Overview

The title bar of the main window displays the software product name, patient name and standard operating system controls (minimize, resize, close).

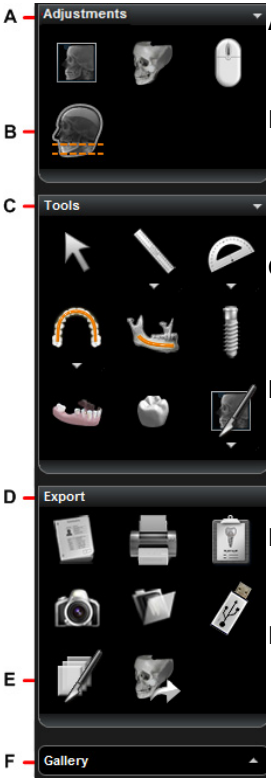
The main window is comprised of the following:



A	**Patient name**	
B	**Main Toolbar Icons**	
		Click the **update** icon to install updates to the **Implant Library**. When there are updates available, a blue dot appears in this icon. Click the arrow next to the icon to toggle to the **Implant Library** icon.
		Click the **Implant library** icon to display the **Implant Library**, in which you can view available implants and create your own implants. Click the arrow next to the icon to toggle to the **update** icon.
		Click the **Patient information** icon to display the **Patient information** window, which includes examination information.
		Click the **about box** icon to display application and registration information. You can also access the **Licensing** software via this window.
		Click the **Edit Preferences** icon to set application preferences.
		Click the **Help** icon to open the user guide for your application.
C	**View Screens** Each of the workspace tabs contain multiple view screens. The example above shows three 2D Multi-Planar Reconstruction (MPR) view screens and a **3D View Screen**.	
D	Workspace tabs The following workspace tabs provide access to view screens: **Orthogonal Slicing** **Curved Slicing** **Custom Slicing** **Oblique Slicing** **Review**	
E	**Toolbox** The toolbox provides the following panes: • Adjustments • Tools • Export	

F	**Gallery** Displays thumbnail images of the screenshots, snapshot images and cross-section slice series.

Tools Panel Overview.



A Adjustments icons.
Use these to modify MPR, 3D and Mouse settings, and to set a region of interest (**B**).

B Region of Interest tool (**Curved Slicing** and **Custom Slicing** workspace tabs only).
Use this tool to set upper and lower region of interest limits.

C Tools icons.
Use these to draw measuring annotations. The range of icons displayed depends on the selected workspace tab.

D Export icons.
Use these to print images and export data. The Volume Export icon (**E**) is only displayed when the Volume Converter software has been installed.

E Export Volume.
Use this tool to export the 3D volume as a series of axial slices.

F Gallery.
Contains thumbnails of saved images. Click ▲ to display and ▼ to hide the Gallery.

Workspace Tabs Overview

The CS 3D Imaging workspace contains five tabs.

1. Orthogonal Slicing Tab

This tab contains:

- Three multi-planar reformatting (MPR) view screens (displaying planes at right angles to each other - axial, coronal and sagittal planes). These screens provide a single movable slice view in each plane.
- One 3D view screen.
  This provides a rotatable 3D view of the entire volume.

2. Curved Slicing Tab

This tab enables you to plot a curve along the mandibular arch and display it as a reconstructed panoramic image. It also enables you to plot a nerve canal or create a Temporal Bone view.

This tab contains four view screens (once a curve has been drawn):

- Axial plane view screen. Use this to manually draw a curve along the mandibular arch.
- 3D view screen.
- Reconstructed-panoramic view screen or Temporal bone view screen. These views appear once a curve is drawn on the axial plane.
- Trans-axial or cross-section view screen. This is a vertical slice through the curve drawn on the axial plane that you can move along the curve.

3. Custom Slicing Tab

This tab enables you to create a Temporal-Mandibular Joint (TMJ) or Ear view.

This tab contains up to seven view screens once a view (TMJ or Ear) has been created:

- Axial plane view screen - this view is always displayed in the top half of the tab workspace. Once you have clicked on a tool (TMJ or Ear) in the Tools panel, you can click and drag on the Axial plane view to set the position of your custom views.
- Two Custom view screens - these appear either side of the axial view when you draw custom view axes on the Axial plane.
  Note: these are empty the first time you use this tab.
- Two Trans-axial plane view screens- these appear either side of the 3D views when you draw custom view axes on the Axial plane. These are movable vertical slices displaying cross-section views along your Custom view axes.
- Two 3D view screens of your Custom view regions.

4. Oblique Slicing Tab

This tab provides the same views as the Orthogonal Slicing tab, but with the added function of rotatable MPR planes.

5. Review Tab

This tab enables you to review DICOM snapshots and slice images generated in the Cross-Section Tool, and to review JPG/TIFF/PNG screenshots. You can also draw objects onto the images on the **Review** tab.

To use the **Review** tab:

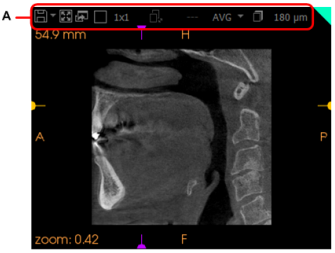
- EITHER use the **Cross-Section** Tool to generate slice images.
- OR save snapshots to the **Gallery** and double-click on the gallery thumbnail to open them on the Review Tab.

For more information on how to use the Workspace Tabs, see the Online Help.

View Screens Overview

Each of the Workspace tabs contain different view screens according to the functionality provided on the selected tab.

The view screens are independent viewing frames with their own toolbars. You can use these toolbars for many things, including creating a snapshot image of the view and controlling how the view screen functions.



A Toolbar in the Sagittal plane MPR view screen.

Opening the CS 3D Imaging Application

These are some of the methods you can use to open the CS 3D Imaging application:

- Double click  on your computer desktop
- Click and drag a DICOM file (**.DCM**) onto  .

Measurements

WARNING:

- **The CS 3D Imaging Software cannot manage your device's acquisition settings. It is the role of the acquisition device to provide calibrated data.**
- **Drawings and measurements made in the software are done under the responsibility of the user.**

To measure anatomical detail in CS 3D Imaging, you can draw a measuring annotation (line or angle) on top of a 2D image and compare the dimensions of the annotation with the underlying image. You cannot draw on 3D views.

Note: Units of measurement are Standard International (SI) units - millimeters (mm) for length and degrees (°) for angles.

Drawing a Measurement Line on an Image

To draw a measurement line on an image, follow these steps:

1 Make sure the image view that you want to draw on is visible.

2 In **Tools** icons (see “Tools Panel Overview.” on page 7), click  . The icon is displayed in blue to show that it has been activated.

3 Click in the image where you want the line to start and drag to the line’s end point.

4 Double click to set the line's end point.
A new line is drawn on the image and the calculated length of the line is displayed alongside (in SI units) :

Drawing a Measurement Angle on an Image

To draw a measurement angle on an image, follow these steps:

1 Make sure the image view that you want to draw on is visible.

2 In **Tools** icons (see "Tools Panel Overview." on page 7), click  . The icon is displayed in blue to show that it has been activated.

3 Click in the image where you want to set the end point of the first straight line.

4 Drag your mouse pointer and click again to set the apex.

5 Drag your mouse pointer again and double-click to set the end point of the second straight line.

A new angle is drawn on the image and the size of the angle is displayed alongside (in degrees).

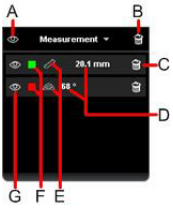
Managing Measurement Annotations

Existing measurement annotations (lines and angles) can be managed using the **Measurement** section of the Tools panel. Each new annotation you add is automatically added to this panel.

To manage your measurement annotations, follow these steps:

1 Click on a Workspace tab that contains images with existing measurement annotations. The **Measurement** panel appears in the Tools panel.

2 Use the icons in the **Measurement** panel to manage your measurements:



A Hide/Unhide all measurements.

B Delete all measurements.

C Delete this measurement.

D Dimensions of measurement.

E Type of measurement indicator.

F Adjust measurement color (click on the colored square).

G Hide/Unhide this measurement.

Creating a Workspace Snapshot

To create a snapshot image of the whole workspace, in **Export** icons (see "Tools Panel Overview." on page 7), click  .
An image thumbnail is added to the **Gallery**.

Creating a View Screen Screenshot

To create a screenshot of a view screen, in the view screen toolbar (see "View Screens Overview" on page 10), click for DICOM or  for image (format defined by your Preferences).
An image thumbnail is added to the **Gallery**.

Note: Snapshots and screenshots are saved in the Snapshot folder on your computer.
To open the Snapshot folder, click  .

Exporting and Printing

Exporting a 3D Volume to a CD or USB Key

To export the entire 3D volume to a CD or a USB key, follow these steps:

1 Make sure you have writable media available (blank disc or good quality USB key).

2 Click  or  in the **Export** section of the Tools panel.

To switch between these icons click  .
These export icons copy the current patient data and a copy of the 3D Imaging software onto your chosen media.

Printing an Image

WARNING: Printed image sizes vary according to the selected Film Composer template. Do not take measurements from a printed page.

CS 3D Imaging uses CS **Film Composer** to print images either on a printer (paper or film) or as PDF files.

To print an image, follow these steps:

1 Click  in the toolbar of the view screen that you want to print. A snapshot of the image is added to the Gallery.

2 Click  in the **Export** section of the **Tools** panel.
This opens **CS Film Composer** and copies all the images in the CS 3D Imaging Gallery into the Film Composer Gallery.

3 In CS **Film Composer**, click on the **template** tab and select a single image template from the list by double-clicking on it (for example use “A4 black - Single View”).

4 Click and drag the image you want to use from the Film Composer Gallery and drop it into the frame in the middle of the page design.

5 Click  to print to PDF or  to print to your default printer.

For more information on using CS 3D Imaging see the Online Help.