DICOM Patient Import

In order to begin planning in the decimal ElectronRT App you must first have patient imaging captured and structure geometries defined. This information is brought in the ElectronRT App by importing DICOM CT and Structure Set files.

Note: DICOM patient import will be disabled until the organization configuration has been completed.

Default Import Directory

The default import directory can be set in the app settings by navigating to View \rightarrow Settings. This directory will always be the default directory when importing a patient. Users can then further refine the import folder as needed starting from this default level.

Importing a New Patient

Local File Import

If you have a set of Ct Images and structures you can import them directly into a new patient through the "Import Patients" menu.

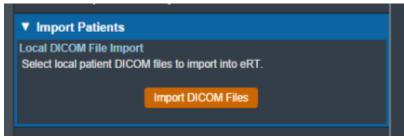


Fig. 1: Import in the Main App Page

Selecting the "Import New Patient" option will open the Importing UI.

Select file(s) for import				
			Add Folder	Add File
Use recursive folder	search			
	A No valid DICOM file	es are present in the selec	ted folder	

Fig. 2: Import Directory Input

Here you may either browse your computer or copy the path to the folder that contains the CT images

and structures you wish to import. **Fix Me!**: 0.0.3 Add in new DICOM browser options. Refer to the Processing Imports section once files have been selected to import.

DICOM Receiver Imports



Processing Imports

Then the import will process:

Import D	ICOM Files	
	Importing DICOM Files. Please wait	
<		
	Step: Writing Course data to disk (Step 2 of 2)	
		Cancel

Fig. 4: Import Loading screen

If there are no Errors while importing you will be taken to a confirmation page for your import.

Patient : ECT Nose				
MRN: Nose				
The following simulturals) has	us have aldered as they	are not closed plana		
The following structure(s) ha	ve been skipped as mey	are not closed plana	.	
- POL_2				
- POL_3				
- POL_4				

Fig. 5: Import Finalized

If there are errors please refer to the Common Errors section below.

Common Errors

Missing/Undefined External Structure

If the imported DICOM Structure Set does not have a structure flagged as *RT ROI Interpreted Type* (3006,00A4) EXTERNAL you will be directed to specify the external patient structure before the import resumes. The patient external structure must be set to the defining boundary of the patient's outer surface, and not a rind skin structure.

Note: You will be warned if the selected external structure is not the structure with the largest volume. This is to prevent incorrect structure selection. For example, when a 'External' and 'Skin' structure both exist, and the 'Skin' structure is a rind, if the user selects the 'Skin' structure, the warning will state the 'External' structure has a larger volume, since that's the correct representation of the patient structure needed for the ElectronRT App.

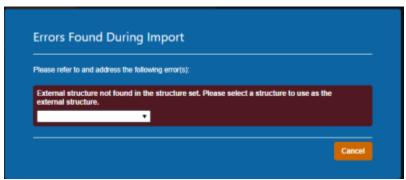


Fig. 6: Missing External Error

The drop down menu will have a list of the structures in the imported set. You will be able to select one as the external for this course then confirm your choice by pressing "Set External".

Please refer to and ad	dress the following error(s):	
	ot found in the structure set. Please select a structure to use as	the
external structure.		
External	 Set External 	

Fig. 7: Set External Dialog

Structures Skipped During Import

Structures can be skipped during Structure Set import if the structures meet the following criteria:

• Non closed planar (e.g.: points or structures where slices are not fully closed)

Structures that are skipped will be denoted at the end of the DICOM import as shown in figure 8.

Patient: :	ECT Nose		
MRN:	lose		
- POI_2 - POI_3			
- POL_4 - Lt Parolid			

Fig. 8: Import Finalized

Importing an Existing Patient

If the files you have selected to import coincide with the MRN of a patient that already exists in the app you will receive this error.

rrors Found Duri	ing Import	
Nease refer to and address the following error(s):		
Patient MRN already exists	s in database.	
Patient MRN already exists Series UID found in existin	s in database. 1g course. Please select an option for import.	
Series UID found in existin		

Fig. 9: Existing Patient Error

You have three options provided to resolve the error:

- Import to a New Course
- Re-Import Structures
- Do Nothing

Import to a New Course

Importing to a new course will simply complete the import with the app creating a new course for this patient using the new imported files (note this option will not affect any existing courses or plans for the patient).

Nease refer to and address the fo	llowing error(s):	
Patient MRN already exists in (latabase.	
Series UID found in existing co	ourse. Please select an option for imp	port.
Import To A New Course 🔹		
Imported CT images and struc	ture set will be added to a new cours	ie. OK

Fig. 10: Importing as a New Course

Re-import Structures

Re-Importing structures can be used if your goal is to update or add structures to an existing patient Course.

Please refer to and address the following error(s):	
Patient MRN already exists in database. Series UID found in existing course. Please select an option for impor Reimport Structures	nt.
Errors Found During Import	
Please refer to and address the following error(s):	
	OK

Fig. 11: Re-Import Structures

After selecting this option, you will be presented with a list of the structures in the import.

For each you may select one of three options:

- **Do not Re-import**: Skips this structure for the re import.
- **Replace existing geometry**: Replaces the existing structure in the current Course with the imported one.
- **Import as new structure**: Imports the structure to the Course as a new structure while not affecting the existing one and allows the user to specify a new name for the new structure. If the structure does not exist currently it creates it as normal.

Please refer to and address the following err	or(s):			
Patient MRN already exists in database. Series UID found in existing course. Plet Reimport Structures •	ase select an option for import.			
Errors Found During Import				
Please refer to and address the following err	or(s):			
PTV	Do Not Reimport	•		
PTV 6840	Do Not Reimport	•		
Rt Parotid	Do Not Reimport	•		
Cord	Do Not Reimport	•		
Cord+5	Do Not Reimport	•		
Ant avoid	Do Not Reimport	•		
Post avoid	Do Not Reimport	•		
Rt Eye	Do Not Reimport	•		
Lt Eye	Do Not Reimport	•		
External	Do Not Reimport	•		
ROLUS 1CM	Do Not Reimport	•		

Fig. 12: Re-Importing Structure List

Once you have made your decision for each structure you must select "Re-Import Structures" to finalize your changes.

90 % (Trial_1)_1	Replace Existing Geometry •
Structure: 90 % (Trial_1)_1	
Electron Bolus	Replace Existing Geometry 🔹
Structure: Electron Bolus	
	Re-Import Structures
	Cance

Fig. 13: Finalize Re-Import

Do Nothing

This is the simplest action, selecting "Do Nothing" will cancel your import and return you to the main menu.

Please refer to and address the following error(s):		
Patient MRN alread	ly exists in database.	
Series UID found in	existing course. Please select an option for import.	
Do Nothing	•	
Import will be cancele	4	ОК

Fig. 14: Do Nothing

