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

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.



Fig. 2: Import Directory Input

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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.

Then the import will process:



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	
- POL_2 - POL_3 - POL_4	
- LI Parolid	

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 (e.g.: 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.



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"

Nease refer to and a	ddress the following error(s):	
External structures	ad found in the structure set Dieses select a structure	to use as the
external structure.	tor found in the structure set. Please select a structure	to use as the
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 correctly closed)

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

Papent: :	ECT Nose		
MRN:	Nose		
- POL_3			
POL 4			

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 Dur	ring Import	
	<u> </u>	
lease refer to and address t	he following error(s):	
Patient MRN already exists	s in database.	tion for import
Patient MRN already exist Series UID found in existin	s in database. Ig course. Please select an op	vtion for import.
Patient MRN already exists Series UID found in existin	s in database. ng course. Please select an op	vition for import.
Patient MRN already exists Series UID found in existin Import To A New Course Reimport Structures	s in database. ng course. Please select an op	vition for import.

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 but instead of affecting existing courses or plans for the patient the app will create a new course for this patient using the new import.

lease refer to and address	the following error(s):		
Patient MRN already exist	s in database.		
Series UID found in existi	ng course. Please select an option f	or import.	
Import To A New Course	•		
in a start of the second s	develope and will be added to a new		
importeu cir images anu:	structure set will be added to a new	course.	<u> </u>

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 your existing patient.

	d address the l	following error(s):	
Patient MRN alm	eady exists in	i database.	rimport
Reimport Struc	a in existing a tures	 Hease select an option to 	r import.
Errors Fou	nd Durin	a Import	
		gimpore	
Please refer to an	d address the l	following error(s):	

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 e	rror(s):		
Patient MRN already exists in database Series UID found in existing course. Ple Reimport Structures). ease select an option for import.		
Errors Found During Import			
Please refer to and address the following e	rror(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 🔹		
BOLUS 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.



Fig. 13: Finalize Re-Import

Do Nothing

This is the simplest action, selecting to do nothing will cancel your import and return you to the main menu.

Please refer to and a	address the following error(s):	
Patient MRN alrea	dy exists in database.	
Series UID found i	in existing course. Please select an option for import.	
Do Nothing	•	
ment will be cancel	art	

Fig. 14: Do Nothing

