DICOM Patient Import

In order to begin planning in the .decimal ElectronRT app you must first have patients set up. The easiest way to do so is to import existing DICOM files.

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.

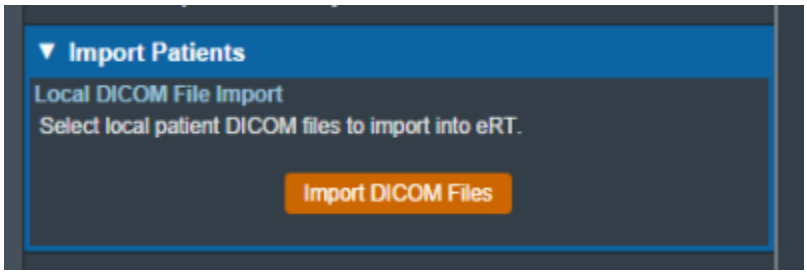

Fig. 1: Import in the Main App Page

Selecting the “Import New Patient” option will open the Importing UI.

Fig. 2: Import Directory Input

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.

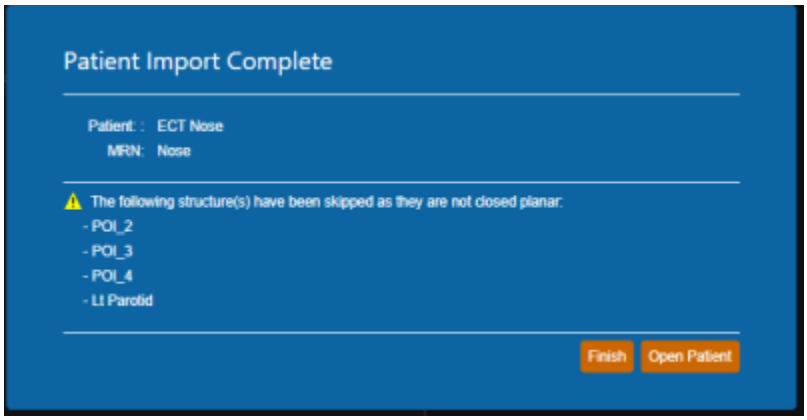

Fig. 5: Import Finalized

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

Common Errors

Missing/Undefined External Structure

If the DICOM Structure Set that is being imported does not have a structure flagged as RT ROI Interpreted Type (3006,00A4) EXTERNAL you will be directed to select the external from the structure set before the import resumes. A structure set to the patient external geometry is required for treatment planning.

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.

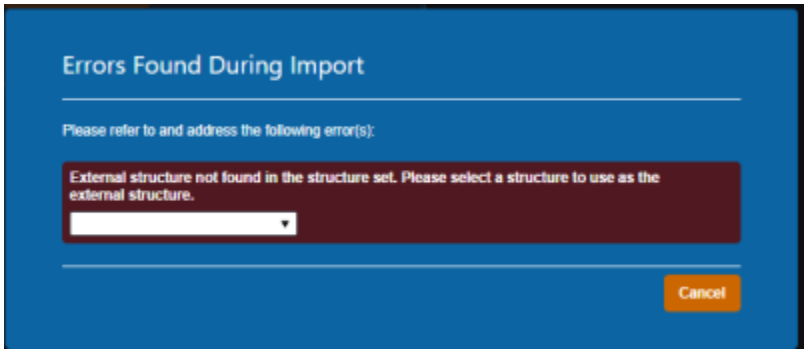

Fig. 6: Missing External Error

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”

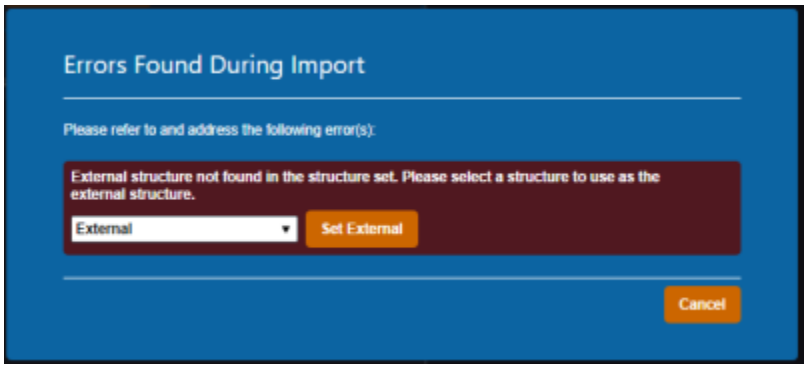

Fig. 7: Set External Dialog

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.

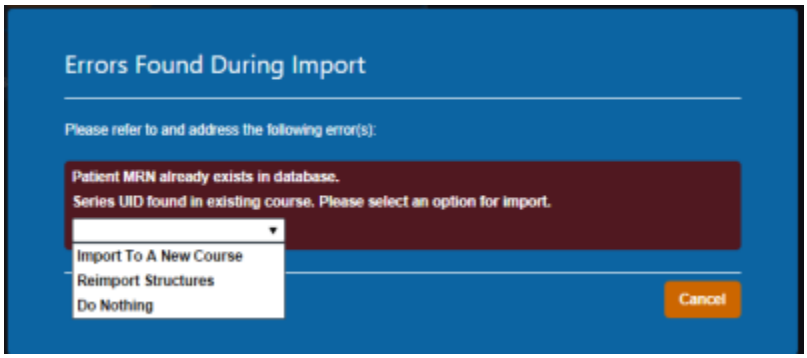

Fig. 9: Existing Patient Error

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.

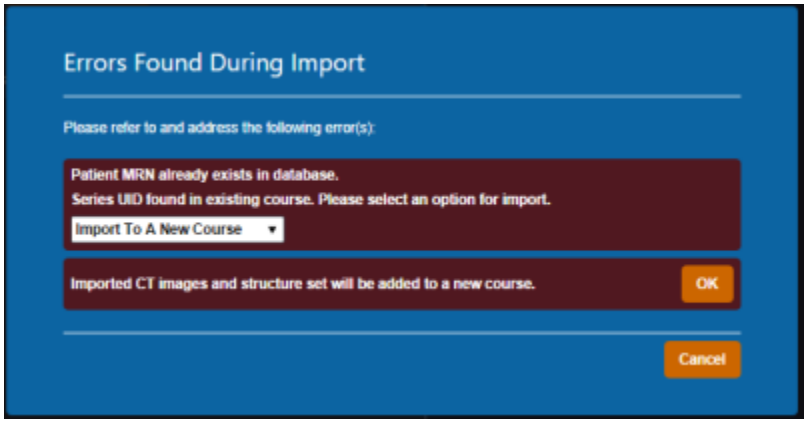

Fig. 10: Importing as a New Course

Re-import Structures

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

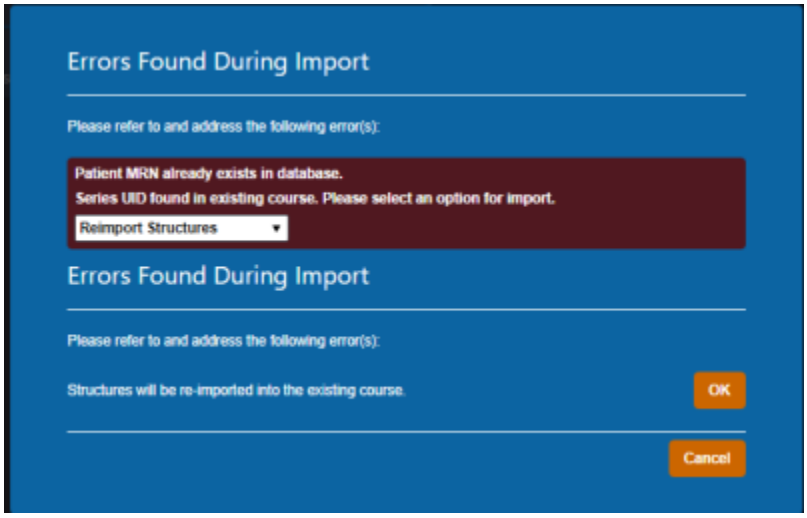

Fig. 11: Re-Import Structures

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 with the imported one.
- **Import as new structure**: Imports the structure as brand new not affecting the existing one. Also, if the structure does not exist currently it creates it as normal.

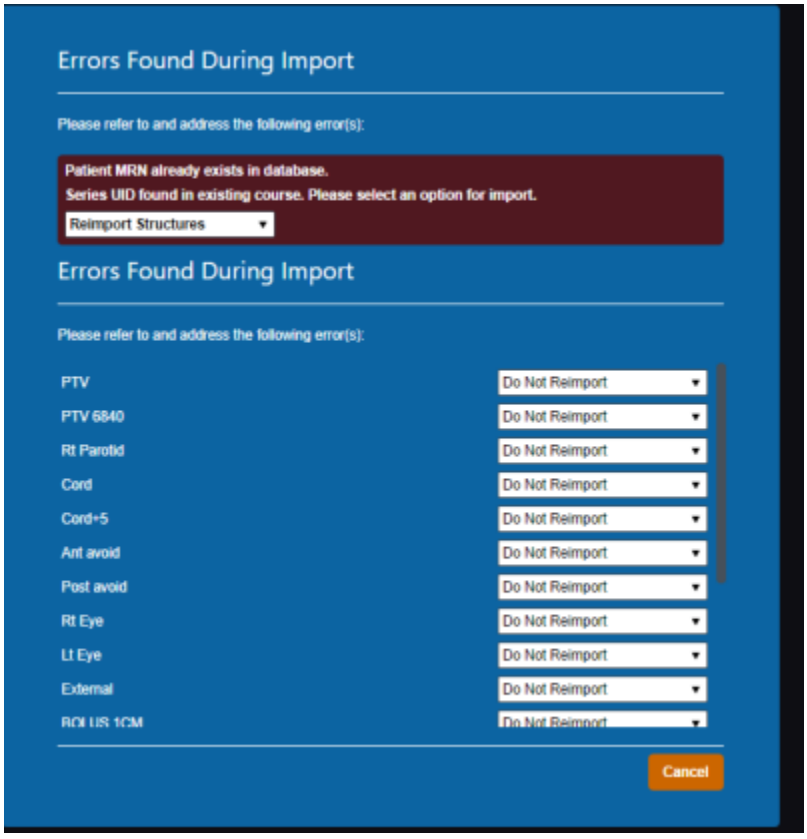

Fig. 12: Re-Importing Structure List

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

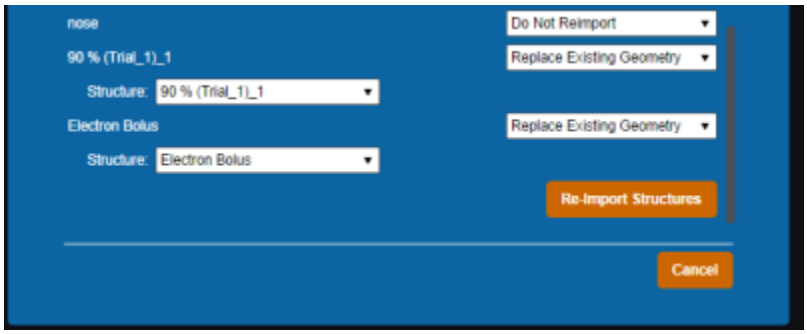

Fig. 13: Finalize Re-Import

Do Nothing

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

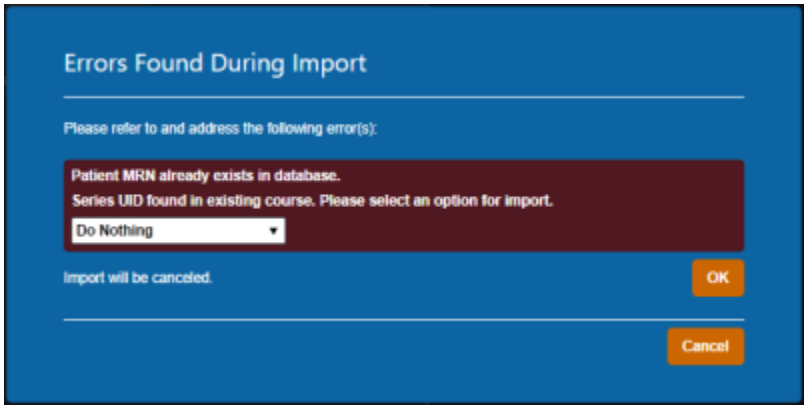

Fig. 14: Do Nothing