decimal eRT User Guide

Overview

The decimal ElectronRT (eRT) application is used for treatment planning of electron radiation therapy treatments. decimal eRT is an interactive end user application that allows users to create treatment plans and electron beam shaping devices (e.g.: bolus, blocks, and skin collimators) and order those devices to .decimal for fabrication.

Purpose

The purpose of this document is to provide guidance on the setup, access, and usage of decimal eRT.

Getting Started

Proper use of this software is critical to safe and effective treatment of patients using plans generated by this application. Users are expected to read and understand this complete User Guide including the Instructions for Use, which outlines the general usage principles and limitations of the decimal eRT app. Users must read and understand these instructions before operating the system for clinical use. Refer to each section below for complete details:

- **Instructions for Use**
  - Overview and Indications for Use
  - User Responsibilities
  - Warning
  - Intended Use
  - User Profile
  - Product Features
  - Data Model

Precautions

It is the responsibility of those utilizing this application to ensure all that all usages of this product relating to patient treatments are performed by trained and qualified personnel only and that such personnel is aware that the quality of any generated treatment plans is highly dependent on the quality and correctness of the input data; therefore if any questions or uncertainties exist regarding the quality, units, or identification of input data arise, they must be investigated and resolved before the data are used.

Initial Setup

Once Astroid has been purchased, Astroid staff will assist with beam model creation, software installation, and user training. Users will be generally be trained at two separate levels, system administrators and end users. System administrators will be setup with appropriate access and tools for managing software including both the local and cloud resources. End users will be primarily trained on the details of generating high-quality treatment plans using the local client portion of the application suite. The beam modeling and equipment setup processes are explained more fully in the Dosimetry App Commissioning Guide.

Installation

The Astroid Planning App includes both a local User Client and a cloud-based calculation provider, therefore, there are specific requirements on computers in which the local client application can be installed. Please see the System Requirements page for details.

Site Settings and Defaults

Site Facility Model

Keyboard and Mouse Controls

The decimal eRT app utilizes keyboard shortcuts to help streamline many commonly used functions and display controls. A complete listing of these shortcuts along with a full description of the mouse controls is located at the Keyboard and Mouse Controls page.

Tutorials

Task Descriptions

The following task descriptions are thorough guides providing complete information about each task

within the decimal eRT application.

System Usage

Improper System Usage

When using decimal eRT, as with any complex program, there is the potential for misuse. The decimal eRT app is a radiotherapy treatment planning tool that is intended to be used by experienced and knowledgeable professionals working in the field of radiation therapy.

Known Application Limitations

Below are listed the known application limitations, defects, or inconsistencies.

General

1. Astroid uses DICOM patient space coordinates for all slice and 3D views and IEC 61217 coordinate systems for BEV (other options, such as machine based coordinate systems are NOT available at this time)