Sandbox Testing

decimal eRT provides a Sandbox isolated testing environment for evaluation of new application versions on non-clinical patient data. This testing mode is recommended to evaluate new release versions of the application prior to distribution to a site and it's users. The physics team at each site should evaluate the all new application versions in the Sandbox environment to determine clinical acceptability of the new version following the decimal eRT Instructions for Use (including but not limited to: comparison of plan dose, device design, QA, etc). Once the application version is deemed clinically acceptable by testing it in the Sandbox environment, the version can then be deployed to the clinical staff.

Clinical data can be optionally copied into the Sandbox environment (see the Configuring Clinical Data for Sandbox section) or users can choose to start the Sandbox environment with no preexisting data.

The patient data storage and data base for the Sandbox environment is completely isolated from the Clinical data. Any changes made within the decimal eRT application while in Sandbox mode will not transfer to the Clinical patient data (and vise versa, updates to Clinical data will not impact Sandbox data).

When in Sandbox mode users will have full access to all application options as they are available to the user in the Clinical mode.

> **Note:**
> The Sandbox feature is accessible for users with Physics access or higher.

Configuring Clinical Data for Sandbox

Users have the option to set Clinical patients for use in the Sandbox testing environment. When in the Clinical app privileged users can toggle on the advanced Patient Search option to Configure Sandbox Patients (shown in figure 1 at #1). When this option is toggled on each patient in the filtered display can be set to Use for Sandbox (shown in figure 1 at #2). Patients with this option set will automatically be imported into new Sandbox environments.

If no patients have been configured for use with the Sandbox environment an empty Sandbox environment will be created with only the site configuration.
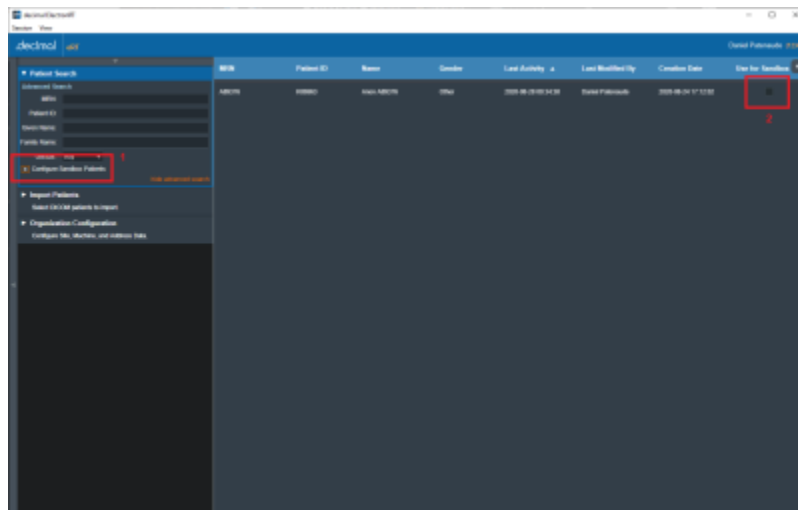
Fig. 1: Use Patient in Sandbox

Installing the Sandbox Version

Refer to the [decimal Launcher Sandbox User Guide](#) for installing an app version to the Sandbox environment.

Running Sandbox Testing

When the decimal eRT application is opened in Sandbox mode the application heading will be Orange and contain a warning that the user is in the Sandbox Testing Environment. This is to ensure there is no confusion to the user about which environment the application is in.
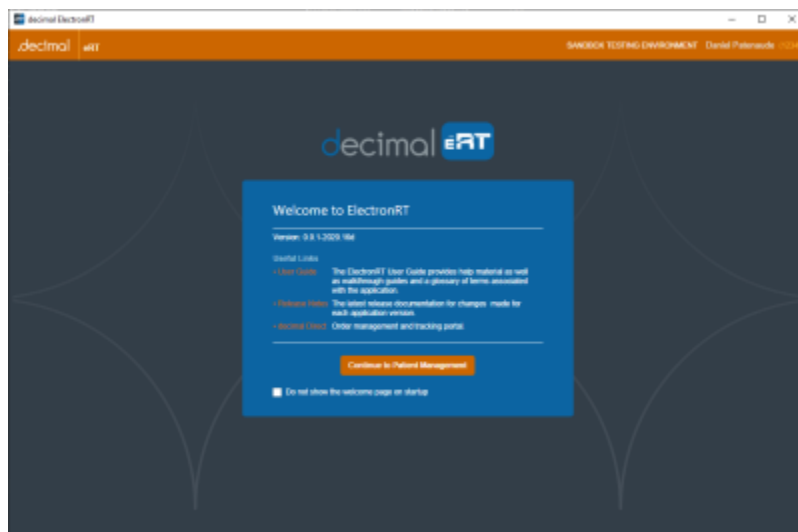

Fig. 2: Sandbox UI Warning

First Time Sandbox Use

The first time the Sandbox environment is created the Clinical site data will be imported into the Sandbox data store. Then any clinical patients flagged for 'Use in Sandbox' will be copied into the sandbox data store. The patients, courses, and plans will be copied to the sandbox environment exactly as they were last modified/approved in the clinical environment.
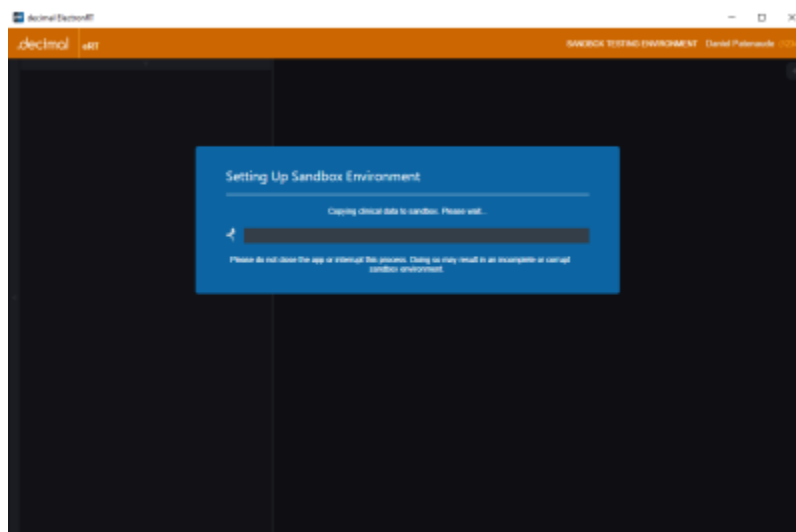

Fig. 3: Sandbox Initial Setup

Consecutive Sandbox Use

The next time decimal eRT in Sandbox mode is used the application will detect an existing sandbox installation and will prompt the user for how to proceed:

1. **Use the existing sandbox:**
   1. The existing sandbox environment will be used exactly how the user last left it
2. **Make new sandbox:**
   1. This will completely wipe the existing sandbox environment and reimport the Clinical data following the First Time Sandbox Use process.
   2. Note: This step can not be undone and all sandbox data will be completely removed. Ensure to manually backup your patient data prior to performing this action if you believe you may need the previous sandbox environment.