PHILIPS

Ingenia MR–RT

User documentation
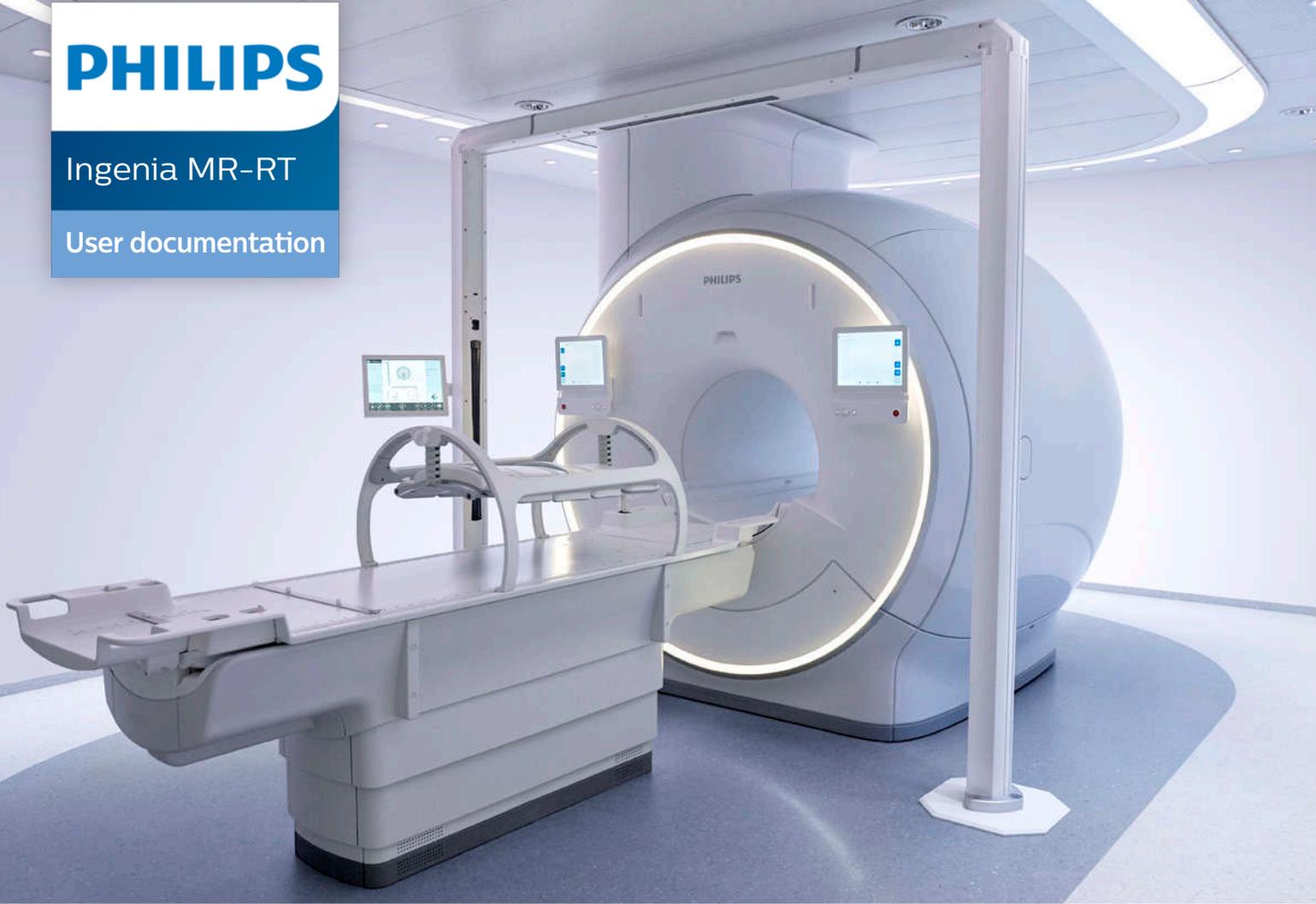
RTgo 5.0 Software Release Notes

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RTGO 5.0 SOFTWARE RELEASE NOTES

Contents

Introduction

RTgo 5.0 software for Ingenia MR-RT:

- Introduces MR-only simulation for Head and Neck.
- Improves compatibility of Prostate and Pelvis MR-only ExamCards with some treatment planning systems.
- Adds electronic access to the *Ingenia MR-RT Instructions for Use*.

These release notes provide an overview of the changes in the RTgo 5.0 software release compared to the previous released version (RTgo 4.1).

Important

MRCAT in earlier releases of RTgo cannot be used after the RTgo 5.0 software is installed on the MR system. The Appendix to this document provides guidance on collecting MRCAT data prior to the installation of RTgo 5.0 software for later processing.

Refer to the *Ingenia MR-RT Instructions for Use* for detailed instructions on the safe use of the RTgo software.

MR-only simulation for Head and Neck

RTgo 5.0 introduces MR-only simulation for Head and Neck. Philips MRCAT Head and Neck enables MR-only radiotherapy treatment planning of patients with soft tissue tumors in the Head and Neck, without the need for CT. Like all MR-only simulations, MRCAT Head and Neck is based on a multi-contrast 3D T1-weighted mDIXON scan, which is standardized to deliver consistent results and high geometric accuracy. The MRCAT Head and Neck source scan has a feet-head coverage of 380 mm and requires less than 3 minutes to complete.

Compatibility improvements

The T2-weighted imaging protocols in the Prostate and Pelvis MR-only simulation ExamCards have been updated to improve compatibility with radiation treatment planning systems. The image size (reconstruction matrix) has been reduced from 864 to 400 as some radiation treatment planning systems have restrictions on the image size. The T2-weighted imaging protocol is an optional scan in the ExamCards. There are no changes to the MRCAT source scans in the ExamCards.

Electronic Instructions for Use

The Ingenia MR-RT Instructions for Use have been made available electronically on the MR console. Once Ingenia MR-RT has been installed for use, the *Instructions for Use* can be accessed from the **Help** menu of the MR User Interface. The *Instructions for Use* are available in the same languages as the printed manuals.
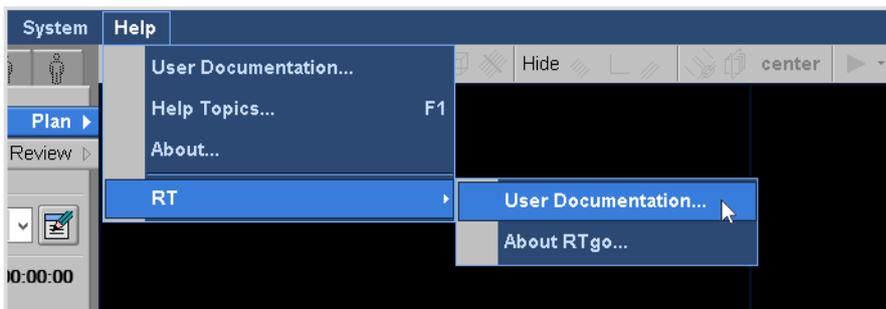
Fig. 1: The Instructions for Use can be accessed on the MR console in electronic form from the Help menu.

Comparison of earlier MRCAT releases to the improved MRCAT in RTgo 5.0

Users should review the impact of changes before replacing their current MRCAT version with the updated version in RTgo 5.0. It is important to note that after the RTgo 5.0 update is installed, the MR system will only be fully compatible with the updated MRCAT version. If required, commissioning can proceed according to site practice after the upgrade, for example, confirming the dosimetric agreement between the planning CT and MRCAT.

If comparison of MRCAT image datasets is required between the MRCAT version currently in use and the MRCAT in RTgo 5.0, Philips can provide the updated (RTgo 5.0) version of the MRCAT ExamCard in advance of the RTgo 5.0 software upgrade. This allows the user to acquire MRCAT image data with their current version of MRCAT according to their current clinical practice and also acquire source scan images with the updated (RTgo 5.0) MRCAT source scan. It is then possible to evaluate the updated (RTgo 5.0) MRCAT source scan images prior to the installation of RTgo 5.0 software. After the upgrade is completed, the MRCAT image datasets from the previously installed release and the improved release can be used for local re-commissioning according to site practice.

NOTICE

The updated MRCAT ExamCard (RTgo 5.0) requires MR software R5.7.

NOTICE

The MRCAT (RTgo 5.0) source scan data must be stored locally and re-imported to the scanner for post-processing with RTgo 5.0 software after the RTgo 5.0 upgrade. See chapter *Appendix: Guidance on collecting data for later processing* on page 8.

Appendix: Guidance on collecting data for later processing

Philips can provide the RTgo 5.0 version of the MRCAT ExamCard in advance of the RTgo 5.0 software upgrade. This allows the user to acquire MRCAT source image data with both the currently installed MRCAT ExamCard and the RTgo 5.0 version of the MRCAT ExamCard.

The process to collect the data and generate MRCAT with the RTgo 5.0 MRCAT source scans prior to the update is as follows:

1. Request RTgo 5.0 ExamCards from Philips.
2. Import ExamCards to the current system. (R5.7 or newer required)
3. Rename the new (RTgo 5.0) MRCAT source scan for the desired anatomy clearly, so that it will not be confused with the current MRCAT source scan. For example, add "RTgo 5.0" to the beginning of the name. Due to the limitation on how many characters of the scan name are shown on the console, it is preferable to edit the beginning of the scan name.
4. Remove the MRCAT post-processing step from the MRCAT source scan. This ensures that the only one MRCAT image set exists for the patient. Note that although it is possible to rename the MRCAT post-processing step, the generated MRCAT images will always have the predefined name.
5. Export the patient data to disk from "Administration F4" in the "Patients" menu. Make sure that the exported images are secure. After the upgrade, the patient database on the MR console will be empty.
6. After the upgrade, import the MRCAT source images back to the MR console. Note that MRCAT images cannot be imported as the MR console does not support images which have CT DICOM modality.
7. Open the patient on the MR console from "New Examination... F2" in the "Patients" menu.
8. Add the appropriate RTgo 5.0 MRCAT source scan (with its MRCAT post-processing step) to the Patient.
9. Copy-paste the MRCAT post-processing step from the RTgo 5.0 MRCAT ExamCard to the previously scanned RTgo 5.0 MRCAT source scan.
10. The MRCAT post-processing step should start automatically.
11. Once the MRCAT images have been generated, they can be exported as usual for processing later in the commissioning.