Physics Assistant Notes

You should work from the [Physics\KW](../../../KW) folder. These files are shared on GitHub.

The best way to get up to speed is to read through the T: drive, especially the KW folder since this is what your work will be.

To-Do:

* Gen’l new hire [tasks](../../../New%20Hires)
* Contact Kaley to get access to her med phys GitHub repos
* Follow up with maintenance about the ticket for the dripping sink in Tomo tx room, that I put in months ago
* Add *SAVES PATIENT* to RS scripts Comments for any script that includes patient.Save()
* Fix broken hyperlinks in Word documents in the KW folder
* Digitize King’s old notes in the drawer to the right of MPA workstation. At minimum, scan into Physics Papers, etc./Notes/King. Better yet, type them out in LaTeX or something. May need to include some diagrams as images in the LaTeX documents.
* Label shipping boxes in hot lab. See procedure [Send Instruments for Calibration](file:///T:\Physics\Instrumentation). Several of our boxes are labelled, but the labels are on the inside and hard to see. We’d like to affix large white labels to each face of the boxes.
* Organize hot lab.
* Test and label the keys in the keys bag.
* Work w/ physicist to cross-calibrate the handheld barometer in the cabinet
* Call Joe to get the hot lab added to the master key. He may ask if we still need another hot lab key. We do not.
* Work with a physicist to calibrate film for DQA. Finish film cal [procedure](file:///T:\Physics\QA%20&%20Procedures\DQA). Use radiochromic.com? See their [paper](file:///T:\Physics\Physics%20Papers,%20etc\Papers,%20Posters,%20PPTs).
* Finish converting brachy forms to eScribe documents in MOSAIQ. See [brachy](file:///T:\Physics\Brachy) procedures and forms. See eScribe [documentation](file:///T:\Physics\MOSAIQ\Manuals%20and%20Training\Escribe-Escan%20Documentation%20Training.pdf). Consult physicists for just how much of the brachy workflow they’d like converted to eScribe. I’ve had a hard enough time getting them to stop replacing my new, updated documents with King’s old ones!
* Ask physicists about Elekta bolus measurements [spreadsheet](file:///T:\Physics\KW\med-phys-spreadsheets\Elekta%20Output%20Measurements%20with%20Bolus.xlsx) that Beshoi and I made forever ago. If they want to continue the project, you may need to help take measurements.
* Improve dosimetry’s [spreadsheet](file:///T:\Physics\RayStation\SBRT\SBRT%20Patients.xlsx) of SBRT patients.
* Add clinical goals in Clinical Goals & Rx’s folder to Clinical Goals spreadsheet.
* Work with physicist to update Elekta shutdown proc in PolicyStat based on my cross-outs on the sheet inside the cabinet at the E1 console
* Add contacts from Contacts [spreadsheet](file:///T:\Physics\Info%20Spreadsheets) to desk phones. Check with IT for a way to batch add to multiple phones.
* Add screenshots to proc for importing into a new case in RayStation
* Work with physicists to get a demo of a 3D printer for bolus. Investigate creating an anthropomorphic phantom w/ it.
* Watch cool QA [presentation](https://www.aapm.org/education/vl/vl.asp?id=14278) that I found, if it looks interesting.
* Investigate fallback planning for IMRT -> 3D. There are some procs for this, and the script vmat\_3d\_fallback\_planning will help.
* Fix Mobius templates (plan types, etc.) to account for MD, body site, etc. (e.g., Jiang Esophagus; reference Clinical Goals spreadsheet). See Mobius v4 [workbook](../../../Mobius/Manuals%20and%20Training/Mobius3D%204.0%20New%20Features%20Workbook.pdf).
* Write procedures
  + Set up physicist MOSAIQ Workspace layout
  + Add attachment to Elekta Care support case
  + Use dosimetry printer to scan into Physics\Temp (“Physics scan” address on printer)
* Go through old Accuray support cases and follow up, close, etc.
* Ensure all workflows in MIM/Workflows folder are actually in MIM
* Edit “RayStation Plans to MOSAIQ – Detailed” proc to be less SBRT centric. Generalize SBRT lung prep script as well?
* Test/finish scripts in the KW/med-phys-scripts/NOT READY and KW/med-phys-scripts/RayStation/NOT READY
* “Coming Soon” tasks in Scripts User Manual
* Script to split exported DICOM files into multiple zipped folders to email to another facility. The Outlook email size limit is 38 MB.
* Script to duplicate ROIs in RayStation and append the suffix “^Boost” (Eclipse does this natively)
* Script to delete geometries on multiple exams
* Script to fake “view fractional dose”: create plan sum with just 1 fx of dose from the plan. However, check that future RS versions don’t have the functionality to view fractional dose (some TPSs do).
* Script to email users about files that have been modified in the last, e.g., week.
* Work with physicists & dosimetrists to clean up / create new RayStation templates: beam lists, objectives/constraints, protocols, fallback planning (3D pros, VMAT pros beam list template, VMAT H&N, 3D H&N, SBRT lung, L prone breast, R prone breast)

Show physicists the [spreadsheet](file:///T:\Physics\KW\med-phys-spreadsheets\Pts%20for%20Opt%20Templates.xlsx) of patients for optimization templates. The objectives have been added to the patients (I think), but no templates have been created. Also need to add more patients for different body sites.

* Script to add loc point geometry to the center of the BBs on an imported Tomo exam (this loc point necessary for fallback planning)
* Proc and script for DQA plans w/ shifted iso
* Python script to list patients that are scheduled on a different machine than they were QA’d on

Use SQL (possibly [pymedphys](https://docs.pymedphys.com/lib/ref/mosaiq.html)?) to interact with the MOSAIQ DB. See the [data dictionary](file:///T:\Physics\MOSAIQ\Manuals%20and%20Training\MOSAIQ%202.82%20Data%20Dictionary.pdf). A patient has been QA’d on E1/E2 if that machine is in a “DQA Passed” note on a DQA QCL. Tomo patients can be ignored.

* Script that lists DQA plans that can be deleted from the DQA Plans folder on the T: drive. Use pymedphys/SQL to determine which pts are finished with the QA plans
* Script that lists Tomo pts that can be archived. Use pymedphys/SQL to find pts that haven’t been tx’d on Tomo in, say, 3 mos.
* Script that outputs MOSIAQ status codes to an Excel table. Dosimetry does not have permissions to view these in MOSAIQ.
* Investigate scripts in Scripts from Vendors folder. I already built off of the Mobius data download ones in some of my scripts in NOT READY.
* Find new scripts in Ray Community Scripting Forum. Add them to “Scripts from Vendors/RaySearch” folder to later modify for CRMC use
* With physicists, finish investigating Tomo jaw sweep on Delta4 computer. See if you can move it to the T: drive.
* What should we actually *do* w/ DVH curves exported from RS? Zach was looking for ideas.
* Learn MIM Workflows and Extensions

Training website: <https://www.mimsoftware.com/portal/login?originalUrl=%2Fportal>