To do ESAPI Vitesse backup

Thursday, September 12, 2024

3:42 PM

Link to folder: [\\srvnetapp02.phsabc.ehcnet.ca\bcca\docs\CCSI\PlanningModule\Physics Patient QA\VitesseBackup''](file://srvnetapp02.phsabc.ehcnet.ca/bcca/docs/CCSI/PlanningModule/Physics%20Patient%20QA/VitesseBackup'')

ESAPI coding: Implement reporting for output

Output report in pdf or text format for every plan for every read DICOM

Global batch failure to identify which DICOMs failed

ESAPI coding:

Able handle multiple patients

Plan uploaded last

Dose needs to be uploaded after plan as well!

Import to specific course // ask reddit

Responded to ? Answer helpful?

I don't think this is worth worrying about, it seems the solution may be more complicated than it is worth.

Talk to Tony about how many patients to upload/ size constraints / 70 GB too big?

Workaround is use API to make new course, then cut and paste plan using API to new course, Search documentation (Chapter 2) for creating standalone ESAPI script to open patient->edit plan etc.

Run Michael's script to make all dicoms ready for Aria import

Modified script to add additional useful features (start at specific patient number in directory, made the script faster by only checking plan files since only plan files contain the sequence of interest, added colored output in terminal for quick reading of what is happening, included batch processing in steps of 10 vs entire directory processing)

All patients now have modified dicoms.

Run on patient folders? Which ones?

Up to patient index 45

Note that I am getting some code 272s from cstorer. Based on quick investigation, it may come from patients that already have a Course 1. Note that I cannot seem to manually change these course names. It seems that once it is marked as completed, the course name cannot be changed? …..

Never mind this may not be it, Balaux had a course like this and the import still worked.

**I think I found out what the issue is with these patients, they have very minor differences in the existing patient record compared to the dicoms being imported. May have to handle these ones manually! \*\*\***

Determine how to rename the courses

Made script to rename courses

Test script with smal subset or some anon patients

Get access to workstation to script on.

(Optional? Later) Write a small QA script to go back over the folders and confirm that each plan is in the right course and the plan and course have the right name.

Build executables

Meeting Michael and Matt Jan 17 2025

Solved issue with standalone scripts not working, seems you must login to a specific user (ie. NOT CCSI) then run the script because Aria wont open an instance of itself without a user attached in v13 or higher

Make modifications to ESAPI script to create a new course, move transferred dicoms to new course and rename

Make sure when testing the built executable that it is run on a computer with Aria installed and that we are logged into a user NOT CCSI

Update Jan 31 2025: Attempted to test my script but because it is not approved, Aria will not allow write actions or any change data actions. Sent email to Michael to address: test on non-clinical or circumvent/go through approval process.

Meeting Michael and Matt Feb 7 2025

Note to self: Delete copy of Doucette Rene in Vitesse backup folder \*\*\*

Script is running on the non clinical test box (CACNECTST01), when logged in as matthew.muscat

Script is working so far! Working on including all functionalities…

**MAJOR ISSUE:** The method CopyPlanSetup() (for courses) does not support brachy plans due to:

* + Catheters and dwell positions being complex.
  + Source loading and optimization being specific to each treatment.
  + Additional dependencies that cannot be copied.

Working on using method brachyplansetup() instead, manually creating the plan, then copying the parameters to it afterwards…

Oldest active

Alternatives:

Figure out how cstore (eclipse) sends dicoms to courses (how it sorts)

It looks like CSTORE sends the incoming to the most recently created active course! (Good news!)

Bad news: now that the files have already been sent for certain patients, resending them via CSTORE after creating a new Vitesse Archive course that is more recent does not resort them into this folder..

Try renaming plan?

Plan to potentially reduced manual workload: maybe rename only courses that have single plans

Make reddit post about copying brachy plans to new course

Potentially make "Vitesse only" patients, that have no courses, just send CSTORE to these newly created patients - unlikely option

Maybe rename plan names to "F1 blah blah - Vitesse Record"

Change dicom headers to unnapproved, then try sendcstore again to see how it behaves if this dicom was already send/ is there

* + Update: Feb 7 2025:
    - The AriaDicomImportCreateNewCourses script at present unfortunately is useless for this project, since the CopyPlanSetup method (a method under Course object) does not work for brachytherapy plans, only external beam plans. Therefore it cannot copy the brachytherapy plans to a new course.
    - I determined that cstore puts dicoms into the most recent (active?) course. This is good news as if this was known from the beginning this project would have been very simple. Unfortunately, when resending dicoms that are already under the patient in a course, when resending with cstore it wont automatically put them in a newly created course that is more recent, it seems to just leave them alone.
    - Therefore it seems that the next plan may be to identify the patients that have ONLY the plans we are interested in in the course, and for those, simply rename the course. Unfortunately apparently the id is read only and cannot be changed via esapi scripting…
    - It seems at this point then that the only strategy may be to now manually rename (where possible) the courses, and for the cases that are not possible, to copy over the plan to a newly created Vitesse Archive course…
    - See if we can change approval status via EASPI to unapproved to allow for deletion. Michael would need to run this I think (under his account) because users need rights to change approval status, my account doesn’t have these rights
    - Can we use ESAPI to delete plans?
    - IMPORTANT: The current version of AriaDicomImport should NO LONGER BE USED AS IS! The current understanding of the best strategy for unuploaded patients is:
      1. Create new most recent vitesse archive course, make sure it is most recent, it should also be active
      2. Then immediately use the sendcstore command
    - Updated strategy?:
      1. For the ones we have not uploaded yet the strategy is (ie. Plan A):
         1. Create new most recent vitesse archive course, make sure it is most recent, it should also be active
         2. Then immediately use the sendcstore command
      2. For the plans that are under their OWN course (ie not shared with another unrealted plan) just rename the course
      3. For the plans that do share with another unrelated plan under the same course, then delete and use strategy 1. above. If you cant delete, you must change the approval status to "unapproved", so do that then delete. If you cant change the approval status, then just mark it down and move on as Michael's credentials are required to change the plan approval status. Ie the goal is to just delete our plans that are under that course, then use the updated strategy above of make a new course that is "active" and the most recent course, and then reupload via cstore.
  + Update: Feb 25 2025:
    - Began manually finishing patients
      1. Consensus: for plans that were placed under courses that are shared by with other plans, delete our plan from that course, and mark it for reupload via sendCstore in the master excel. If going manual method, create a new course under that patient called "Vitesse Backup", if going automated method, the sendCstore script (AriaDicomImport) needs to be modified such that it creates a new course with the name "Vitesse Backup" before executing sendCstore command.
      2. Consensus: for plans that were placed under their own newly created course, and do not share unrelated plans (may have more than one plan if the patient had more than one HDR vitesse fraction), simply rename that course manually
      3. Note: I have modified the AriaDicomImportCreateNewCourses script to attempt to automatically rename courses that have the EXACT matching plans (and no others) under the (potentially multiple) fraction folders for each patient.

Emailed Nick Chng asking to use the non-clinical box to test this script

* + Wrote a python and Esapi script to generate list of BCCIDs that are misnamed between Vitesse and Aria, then retrieve patient first and last names from Aria

Need to use this information to rename all the Vitesse generated dicoms using these first and last names, then can reuse Cstore to send to Aria.

See Esapi script AriaRetrieveMisnamedPatients

Ran it, it worked and generated csv to ([\\srvnetapp02.phsabc.ehcnet.ca\bcca\docs\CCSI\PlanningModule\Physics Patient QA\VitesseBackup\aria\_patient\_names\_20250228\_134755\_results.csv](file://srvnetapp02.phsabc.ehcnet.ca/bcca/docs/CCSI/PlanningModule/Physics%20Patient%20QA/VitesseBackup/aria_patient_names_20250228_134755_results.csv))

See python script Vitesse\_backup\_excel\_reader\_identify\_misnamed\_patients and file patients\_misnamed\_BCCIDs.csv under ([\\srvnetapp02.phsabc.ehcnet.ca\bcca\docs\CCSI\PlanningModule\Physics Patient QA\VitesseBackup](file://srvnetapp02.phsabc.ehcnet.ca/bcca/docs/CCSI/PlanningModule/Physics%20Patient%20QA/VitesseBackup))

Now need to write a script that reads the csv generated from AriaRetrieveMisnamedPatients, and renames all the dicoms. NEVERMIND THIS FOR NOW! SEE BELOW POINT!

New strategy, use evildicom to modify dicoms that fail with 272, then try to resend them!

Modified AriaDicomImport:

Now if fails with 272, retrieved patient names and birthdate from Aria and modifies a copied version (To a copied version of edited for eclipse import folder) of the dicom then tries to send it again.

Also added functionality to check if Vitesse Backup course already exists in patient, if it doesn’t, it creates one!

AriaDicomImport ready to be tested on March 3rd

Also need to test AriaDicomImportCreateNewCourses script to see if we can simply rename courses that have the correct plans inside!!

Done works, also tried to add functionality to remove plans from shared (unrelated plans) courses but doesn’t seem to work, I thought it may be due to the plan being approved and needing to be changed but that wasn’t it either. So reverted back to just renaming courses, although the functionality is controlled by a boolean variable

Also added xml config file functionality to control indices and, folder storage location and new course name

Moved exe to ("[\\srvnetapp02.phsabc.ehcnet.ca\bcca\docs\CCSI\PlanningModule\Physics Patient QA\VitesseBackup\Approved - Rename courses with ONLY correct plans script](file://srvnetapp02.phsabc.ehcnet.ca/bcca/docs/CCSI/PlanningModule/Physics%20Patient%20QA/VitesseBackup/Approved%20-%20Rename%20courses%20with%20ONLY%20correct%20plans%20script)") waiting for approval from Tony Teke

Wrote a .bat script called "rename\_courses\_logfile\_parser.bat", located in same directory as output log files "[\\srvnetapp02.phsabc.ehcnet.ca\bcca\docs\CCSI\PlanningModule\Physics Patient QA\VitesseBackup\Vitesse DICOM Archive1](file://srvnetapp02.phsabc.ehcnet.ca/bcca/docs/CCSI/PlanningModule/Physics%20Patient%20QA/VitesseBackup/Vitesse%20DICOM%20Archive1)", needs to be modified each time to read the correct log file, but it parses the log file to give red and green statements of success or failure of renaming.

Ran AriaDicomImportCreateNewCourses and "rename\_courses\_logfile\_parser.bat" for all patients!

Also seems some patients upon review fail with 272 even though their names seem to match?

To test AriaDicomImportCreateNewCourses , need to upload fractions from patient in misnamed Course1 on non clinical box

To test AriaDicomImport, need to find patient that will 272 in non clinical box

AriaDicomImport works, needs approval

Continue running AriaDicomImport on remaining patients

Continue manual deletion of incorrectly placed plans (ie under shared course with unrelated plans)

Check the most recently created log (global\_summary\_and\_failures\_log - Diduck, Lawrence\_to\_Nygren, Dale - 20250314\_165159) as I ran the AriaDicomImport script over the weekend on many indices

Update master excel accordingly

Running AriaDicomImport for remainder of patients. March 21 2025

Update master excel accordingly

All manual deletions of shared courses complete

Built a new script called AriaDicomFinalReport - which scans Aria and vitesse backup folder to ensure all patients have

A vitesse backup course

All plans are under this course

Not under any other courses.

The script runs and seems to work well.

May want to modify slightly to improve logging to be less verbose

Need to upload all projects to gitea.

Write report for Cynthia

How many uploaded

Generally what was done

How many werent exported from vitesse (basic details on those plans)

Considering alternative pdf upload to Aria

Send to Cynthia