PyPlanscoring Technical Note

Generating reports on XiO version less than 5.00

Abstract:

The Manufacturer (0008,0070) is reported as CMS, Inc. . The CT images are derived from incoming original images and are not original copies; the Image Type (0008,0008)

will be reported as ORIGINAL\SECONDARY\AXIAL.

As of the XiO 5.00 release, the default export behavior for XiO is to export DICOM data

in the original CT images frame of reference ("Original DICOM" coordinate).

If necessary, a user with administrator rights can set the export frame of reference back to

the pre-XiO 5.00 type where the CT data is in a patient relative coordinate system but

may not have the same origin as the original images. In this " XiO Generated" coordinate

mode, the images will always be set to Head First (even if the plan is Feet First) and this

"XiO Generated" coordinate will have a new frame-of-reference UID.

Then, a plan exported using pre-XiO 5.00 uses "XiO Generated" corrdinate system that is different from "Original DICOM" coordinate.

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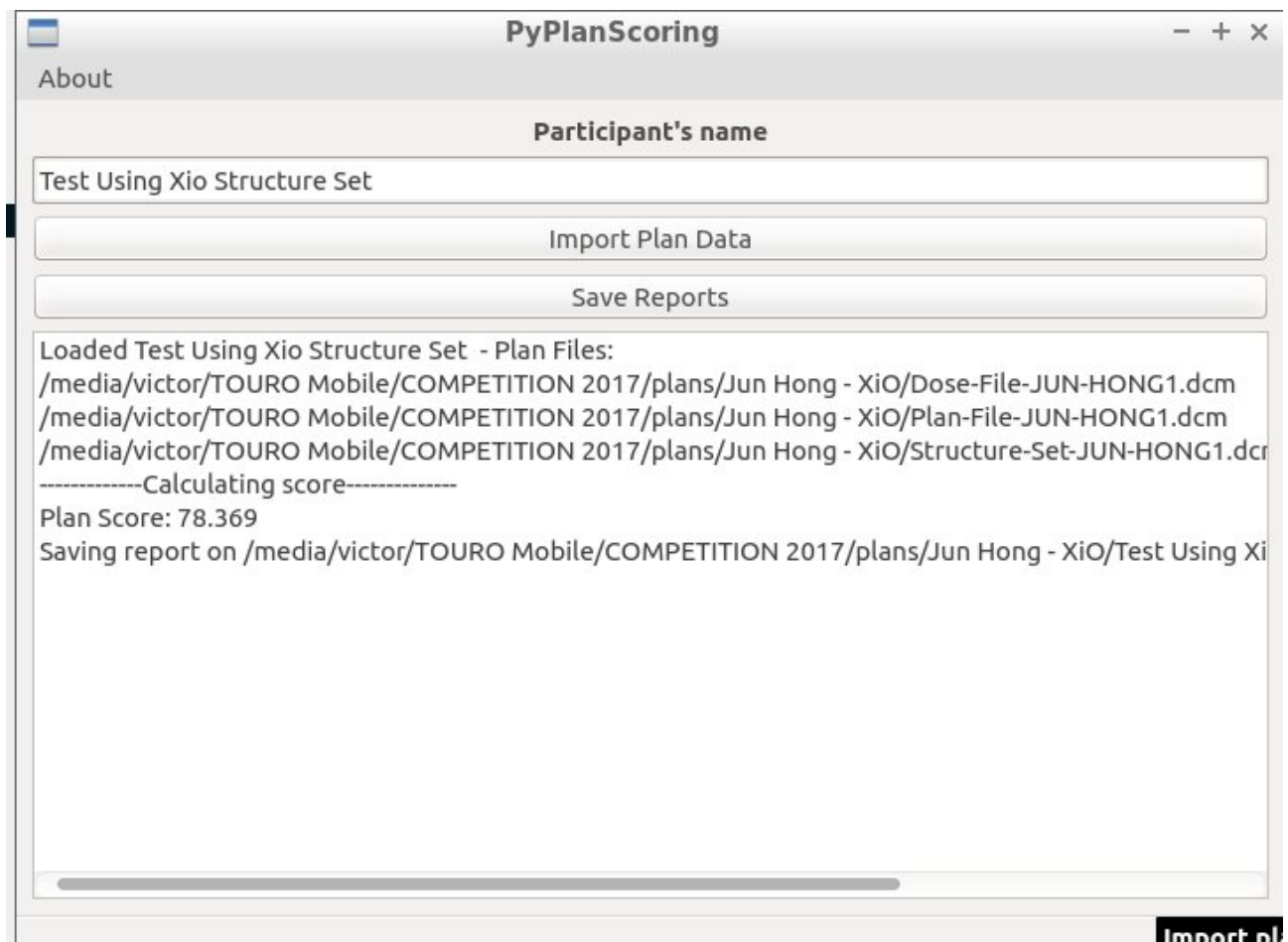**Ex. Participant folder containing only one RP/RS/RD files that were exported using XiO.**
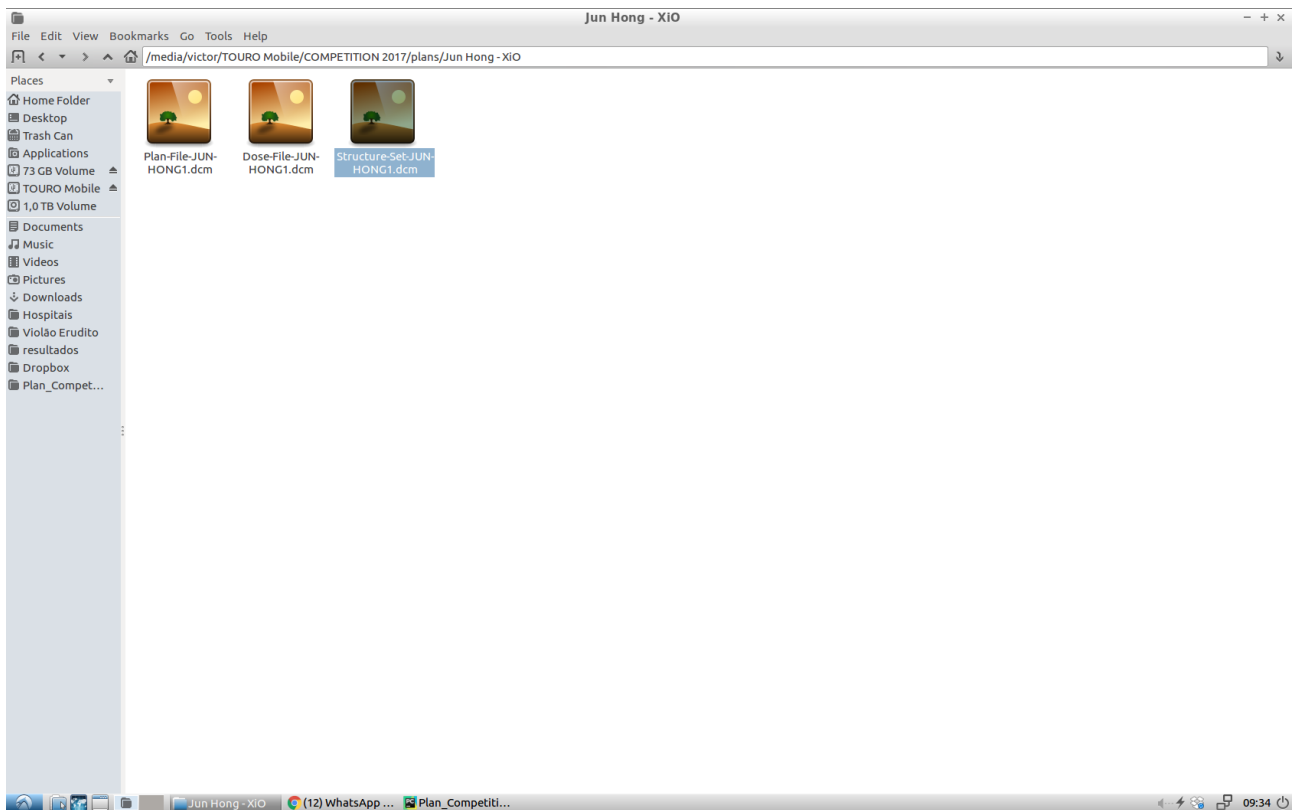
Step 1 – Change **PyPlanScoring.ini** file before run the app.
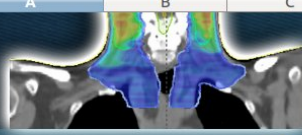
Set use_tps_structures = yes

Then, PyPlanScoring will use the RS file inside participant's folder to calculate the DVH.

Step 2 – Run PyPlanScoring

Step 3 – The result.

	constrain	constrain value	constrains type	value low	value high	Max Score	Result	Raw Score	Performance
PTV70	D95	95	lower	6400,00	6650,00	5,00	6628,99	4,58	91,6%
PTV63	D98	98	lower	5670,00	5980,00	5,00	5817,37	2,38	47,5%
PTV56	CI	5320	lower	0,65	0,87	3,00	0,67	0,25	8,4%
PTV56	D99	99	lower	5100,00	5320,00	5,00	5359,33	5,00	100,0%
OPTIC CHIASM	max	max	upper	5200,00	5500,00	4,00	4693,00	4,00	100,0%
OPTIC CHIASM P	max	max	upper	5500,00	5800,00	3,00	5512,00	2,88	96,0%
OPTIC N. RT	max	max	upper	5000,00	5400,00	4,00	4787,00	4,00	100,0%
OPTIC N. RT PR	max	max	upper	5500,00	5800,00	3,00	5520,00	2,80	93,3%
OPTIC N. LT	max	max	upper	5000,00	5400,00	4,00	4880,00	4,00	100,0%
OPTIC N. LT PR	max	max	upper	5600,00	5800,00	3,00	5614,00	2,79	93,0%
EYE RT	max	max	upper	5300,00	5600,00	2,00	5062,00	2,00	100,0%
EYE LT	max	max	upper	4800,00	5200,00	2,00	4684,00	2,00	100,0%
LENS RT	max	max	upper	1000,00	1200,00	3,00	847,00	3,00	100,0%
LENS LT	max	max	upper	1000,00	1200,00	3,00	873,00	3,00	100,0%
BRAINSTEM	max	max	upper	5000,00	5400,00	4,00	4838,00	4,00	100,0%
BRAINSTEM PRV	max	max	upper	5500,00	6000,00	2,00	5725,00	1,10	55,0%
SPINAL CORD	max	max	upper	4000,00	4200,00	3,00	3517,00	3,00	100,0%
SPINAL CORD PR	max	max	upper	4000,00	4500,00	2,00	4220,00	1,12	56,0%
PAROTID LT	D50	50	upper	3000,00	4000,00	2,00	5701,49	0,00	0,0%
LIPS	Dcc	0,1	upper	3000,00	3500,00	3,00	2928,47	3,00	100,0%
POST NECK	Dcc	0,1	upper	3500,00	4000,00	3,00	3706,20	1,76	58,8%
ORAL CAVITY	mean value	mean	upper	4000,00	4500,00	3,00	5064,35	0,00	0,0%
LARYNX	mean value	mean	upper	4500,00	5000,00	3,00	4401,00	3,00	100,0%
BRACHIAL PLEXU	Dcc	0,1	upper	6300,00	6600,00	5,00	6216,09	5,00	100,0%
ESOPHAGUS	mean value	mean	upper	4500,00	5000,00	3,00	2768,89	3,00	100,0%
PTV70-BR.PLX 4	CI	6650	lower	0,65	0,90	4,00	0,85	3,16	79,1%
PTV70-BR.PLX 4	HI	7000	upper	0,08	0,13	3,00	0,09	2,18	72,6%
PTV63-BR.PLX 1	CI	5980	lower	0,65	0,88	2,00	0,81	1,39	69,5%
PTV63-70 3MM	HI	6300	upper	0,08	0,14	3,00	0,17	0,00	0,0%
PTV56-63 3MM	HI	5600	upper	0,08	0,14	3,00	0,12	0,98	32,5%
BODY	Dcc	0,1	upper	7500,00	7700,00	3,00	7167,91	3,00	100,0%
						Max Score: 100,00	Total Score:	78,37	78,4%