1. In the PLATO planning software, save a plan as "export to RTOG" in the BRACHYTHERAPY module.

A. In the dose preference panel, grid size should be 2 mm for dose matrix.

B. The display type of isodose lines should be absolute dose, not relative dose to prescription.

Nucletron PLAT	O BRACHYTHERAPY v14.2.6	Patient:	ID: 45766314 Plan:	_RTOG	•
<u>File I</u> mage <u>P</u> lan	<u>R</u> econstruction <u>D</u> ose D	stribution			<u>H</u> elp
Nucletron PLAT File Image Plan Rectumt (1) Story (2) File (3) Story (4) File (4) Story (5) Dose prefere Dose units CGy Isodose lines Isodose unit Relative Isodose reso Low Isodose value	O BRACHYTHERAPY v14.2.6 <u>Reconstruction</u> <u>Dose Di</u> <u>Dose Di</u> nces nces Gy	E Patient: stribution	ID: 45766314 Plan:	RTOG	
Isodose lines Isodose unit Relative Isodose reso Low Isodose valu 712.50 Add by valu 200	 Absolute ution es (cGy) 950.00 1187.50 1 Add by coordinates Add 	425.00 □ 1900.00	Delete selected Delete all		Flip Rotate Image Prefs. Ruler Image Zoom Level WL 251 WW 1955 Plan Load Save Exit Output
3D dose surfa Value 950.0 Grid resoluti ↓1 ↓ ↑ 2	e) cGy Transparency ∏ >n - ∲4 ∲6 ∲8 ∮	Grid margin 10 30 mm	Display		Set-up Axis Catheter Points VOI Editing Dose Distribution Source Pos. Prescription Dose Points Dose Prefs. Optimization Evaluation Graph. Opt. Graph. Presc.

C. Determine the total number of fractions, type of applicator, and name of organ used for applicator

Nucletron PLATO BRACHYTHERAPY v14.2.6 Patien	Save plan	•
File Image Plan Reconstruction Dose Distribution Rectum (1)	ypes of plans Patient Export for RTOG (DICOM) Library Define anchor points	<u>H</u> elp Display └─ Light Box On/Off
		Image
File	e name	Image Prefs. Ruler Image Zoom Level
		WW 1955
	Ok Cancel	Load Save Exit Output Reconstruction
Catheter: 1 of 15		Set-up Axis
DICOM attributes		Catheter Points
Number of fractions 2		VOI Editing
Treatment technique INTERSTITIAL		Dose Distribution
		Source Pos. Prescription
Application setup type PERINEAL		Dose Points Dose Prefs.
		Optimization Evaluation
		Graph. Opt. Graph. Presc.
Ok Cancel		User Defined Optimization

2. Exit the RTOG plan as well as brachytherapy module, and then enter into "export" panel in the "File" menu in the Plato Planning System (PPS) window menu for the patient.

PLATO Patient Selection System v3.3.5 File Bun			• □
Select a Patient:	Patient info		Terb
01232975 F U 45766314 P 45802417 S 45943356 M 35959149 C 33970617 D	Created Feb 07, 2005 Last Name Initials Pediate 45766314	New	y
45955132 J 45955132 J 45991431 G 45622797 R 9635273 D	 Male Sex	Save	igitize
45523594 B 01949446 J		Delete	
45966216 D 45889297 B	Birth Date 3 1 3 1 1949	Imag	je Fusion
43031538 F 45805000 R	Modified Feb 08, 2005		Film
45/92897 T 43164465 H 25154477 H	Used on ROM2HDRP00.ucstmedicalcenter.org by plato	DIC	COM/SC
42979724 J 45808831 P			COMBT
09148337 A 45415538 G	7	Exit	
Not Archived Creation date descending Select a Case:	Case info	/	<i>Kanning</i>
ISRT Day2 Prostate Interstitial	Name Prostate Interstitial	New	nytherapy
	Notes	Save	PS v13
	Mouned its sy, 2000	Dalata	rnal Beam
Select a Study:	7	Eva	aluation
T Untitled	Study info	New	
	Modified Feb 08, 2005	Save	reotaxy
	Show Info		
		Delete	
1	Ĩ.		j
- PLATO Generic Export Module v1.3			•
			Help
Select an export target:	Export Report view		
Patient2DICOMRT	BPS Plan, Dose, Images and Structu	ire Set Export for	
PlanIso2DicomRT	Targotquetow · DTOC		
RTOG	Targetsystem . KIOG		
	Patient : (Case : Prostate I	45766314) Interstitial (1172	
	study : Untitled (11722)	Export
	Study : Date : 2005.0	2.07	
	Time : 13:03:	54	
	Image orientation : L P		
	HF conversion : No Images flipped : No		Export Now
Select a Patient:	Plan patient :	_RTOG	
	Plan Label :	RTOG	
	Treatment Unit Name : mHDR		
		▼	
			Print
	Enter Physicist approval (modified)	Export Direct	
Last name ascending	Last Name	_	
Used on ROMZHDRP00.ucsfmedicalcenter.org by plato			
Select a Case	Plan:		
Prostate Interstitial			
	RTOG		Queue
Select a Study:			
T Untitled			Close
Ĩ	0		

3. Before exporting to the PC, logged-in the PC and run the software called "ITC_DICOM" on PC.

Click "Run Dicom Receiver" button on the window of "ITC_DICOM" software. The software is now ready te receive the files from Plato

Sponsor	Protocol	Case	Initials
Make Patient ID Available Series: \dcmrcvr\	Patient ID:	[
Selected Series: \c	COM Receiver Awaiting DICOM Asso Number of Files Rece Stop DICOM	nciations on Port 104 vived: 0 1 Receiver	
Create CD file set	Delete All Selected	Run Dicom Receiver	Quit Program

4. Export RTOG-plan file into the PC: Click "Export Now" button in export module (second Figure in step 2)

The proper file transfer process from PPS to PC could be confirmed by noting the increase of the number of files received in the window of "ITC_DICOM" software.

🛃 ITC DICOMpiler			×
Sponsor	Protocol	Case	Initials
Make Patient ID	Patient ID:	[
Available Series: \dcmrcvr\			
ITCDIC	OM Receiver		×
	Awaiting DICOM Asso	ociations on Port 104	
	Number of Files Rece	ived: 46	
Selected Series: \c	Stop DICOM	Receiver	
Create CD file set	Delete All Selected	Run Dicom Receiver	Quit Program 04-08-31-01

Fill out "Sponsor, Protocol, Case and Initials" and click "make a patient ID" button to make

Patient ID.

💑 ITC DICOMpiler						×
Sponsor Protocol		Case		Initials		
Make Patient ID	Patient ID:	UCSI	F^RTOG0321^Feb) 8^PH^		
Available Series: \dcmrcvr\						-
Unselect this Series			Jnselect All Series	;		
Selected Series: \dcmtemp\						
CT01-> 43 CT image Files RD01-> P -> 1 RT Dose Files RP01-> 0 P -> 1 RT Plan Files RS01-> 1 RT Structure Set						
Create CD file set Delete All St	elected	Run Dicc	om Receiver	Quit F	^D rogram	1
				04-08-31-	01	

Click the button of "Create CD file set" in ITC_DICOM.

All the exported files from PPS would be saved in the subdirectory of DICOM "\dicom\dcmcd\". A package of RTOG exported files consists of many Dicom image files (the CT slices), a radiation therapy (RT) plan file (RPxxxx), a RT structural set file (RSxxxx), a RT dose file (RDxxxx). The "dcmcd" folder is created automatically if it does not exist.

Finally, the content of the folder "dcmcd" should be submitted to RTOG0321 protocol headquarter via FTP.

🛃 ITC DICOMpiler			×
Sponsor	Protocol	Case	Initials
Make Patient ID	Patient ID:	UCSF^RT0G0321^Fel	b 8^PH^
Available Series: \dcmrcvr\			
ITC_DICOMpiler The fileset Files are in C:\Docum	has been processed and DIC(the Directory ents and Settings\(My	DMDIR created Documents\Program Files\C	ICOMpiler\dcmcd
Selected			
CT01->> 43CT RD01-> ^P -> 1R RP01-> ^P -> 1R RS01-> -> 1RTS	innage Files T Dose Files T Plan Files Structure Set		
Create CD file set	Delete All Selected	Run Dicom Receiver	Quit Program
			04-08-31-01

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dcmcd Select an item to view its description. See also: My Documents My Network Places My Computer	A Cital 193 (A cital	CT010045.dcm CT010049.dcm CT010053.dcm CT010057.dcm CT010061.dcm CT010061.dcm CT010069.dcm CT010077.dcm CT010077.dcm CT010078.dcm CT010081.dcm CT010081.dcm RP010002.dcm	CT010046.dcm CT010050.dcm CT010054.dcm CT010054.dcm CT010062.dcm CT010066.dcm CT010066.dcm CT010070.dcm CT010078.dcm CT010078.dcm CT010078.dcm CT010078.dcm CT010086.dcm RS010002.dcm	CT010047.dcm CT010051.dcm CT010055.dcm CT010059.dcm CT010063.dcm CT010067.dcm CT010071.dcm CT010079.dcm CT010079.dcm CT010079.dcm CT010079.dcm OCT010083.dcm DICOMDIR	
47 object(s)			22.5 MB	📃 My Computer	1