



# 出力線量測定のためのプラン作成手順書

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# 出力線量測定のためのプラン作成手順

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# 1. Virtual Phantomを開く

Open Patientから「Virtual Phantom」を開きます

FilterにName/IDの一部を入力して絞り込みも可能

ログイン直後はこのウィンドウが自動的に開きます

モデル納品時に登録されている「Virtual Phantom」を選択ください

Patient Name	Patient ID	Creation Date
RadionicsTRN^Brain	90220	Jul 24, 2015
FraxionTRN^Brain	90200	Jul 24, 2015
LeksellTRN^Brain	LeksellTRN	Jul 24, 2015
LtBreast2TRN	BreastLeft	Sep 19, 2014
LtBreast1TRN	LeftBreast	Sep 19, 2014
PATIENT 2	LungTRN	Jul 21, 2014
PATIENT 6	AbdomenTRN	Jul 21, 2014
CivusTRN	CivusTRN	May 12, 2014
GioLeftTRN	GioLeftTRN	May 12, 2014
Stereotactid.liver^TRN	Stereotactid.liver^TRN	Apr 11, 2014
BreastTRN	BreastTRN	Mar 25, 2014
StereotacticAVM^TRN	StereotacticAVM^TRN	Jan 17, 2014
4DLung	4DLung	Apr 29, 2013

## 2. 新規プランの作成

「New Plan」から「DEFAULT3D1BEAM」を選択します

「Treatment Unit」「Modality」「Algorithm」「Energy」、

Isocenter Locationは「Interest Point 1: 10cm」を選択してください

1つのプランに対しビームを1本作成します

Beam	Treatment Un	Modality	Algorithm	Energy	Isocenter Location	X(cm)	Y(cm)	Z(cm)
1					Interest Point 1: 10cm	0.00	0.00	2.00

# 3. 処方線量の入力

左下の「Prescription」タブより

Rx Dose(cGy)に「100」、Number of Fractionsに「1」を入力します

The screenshot displays the Elekta treatment planning software interface. The top section shows a 2D cross-sectional view of a patient's head and neck with a treatment field defined by a red box and yellow lines. The bottom section is the 'Prescription' tab, which includes a table for defining the prescription. The table has three columns: 'Rx Dose (cGy)', 'Number of Fractions', and 'Fractional Dose (cGy)'. The values '100.0', '1', and '100.0' are entered in these columns, respectively. A red box highlights these three columns. Below the table, there are fields for 'Rescale' (set to 100.0 cGy) and 'Weight beams by' (set to Dose). At the bottom, a navigation bar shows 'Prescription' as the active tab, also highlighted with a red box.

Rx ID	Rx Site	Prescribe To	Rx Dose (cGy)	Number of Fractions	Fractional Dose (cGy)
Physician's Intent	A	Plan Isocenter	100.0	1	100.0

# 4. Beam情報の入力

左下の「Beams」タブを選択し、「Geometry」より照射野サイズを作成します  
Jawサイズを手入力し、BEVで確認してください

10x10照射野の場合

The screenshot displays the Elekta treatment planning software interface. At the top right, a blue box highlights the text "10x10照射野の場合". The main workspace is divided into several panels: a top-left panel showing a patient's head and neck in a sagittal view with a red box indicating the target area; a top-right panel showing a grid of dose distribution; a bottom-left panel showing a cross-sectional view of the patient's head and neck with a red box indicating the target area; and a bottom-right panel showing a cross-sectional view of the patient's head and neck with a red box indicating the target area. The "Beams" tab is selected in the bottom left, and the "Geometry" sub-tab is selected in the bottom right. A table below the "Beams" tab shows the beam parameters for a 10x10 cm field.

Beam	Description	SSD (cm)	Gantry (deg)	Collimator (deg)	Couch (deg)	Asym	Width1 (cm)	Width2 (cm)	Length1 (cm)	Length2 (cm)
1	AP	90.01	0.0	0.0	0.0	2)	X1 5.00	X2 5.00	Y2 5.00	Y1 5.00

## 4. Beam情報の入力 (Wedge)

「Beams」タブ→「Treatment Aids」からWedgeを選択します

適切な方向にWedgeが挿入されているか、「Treatment Aid Display options」を変更し確認してください

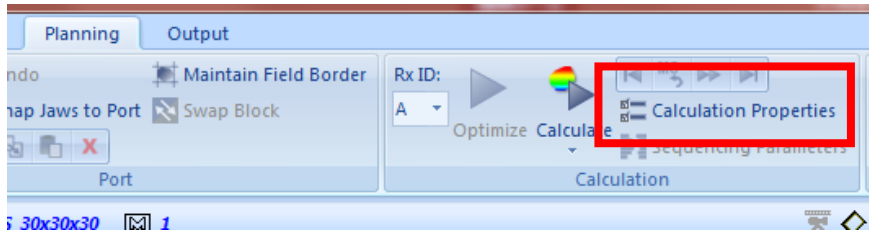
60° Wedgeを挿入した場合  
(コリメータは90° に回転しています)

Beam	Description	Wedge ID	Angle	Orient	Port	MLC	Applicator ID	Bolus	SBD (cm)	Couch
1	AP	Motorized	60				None			

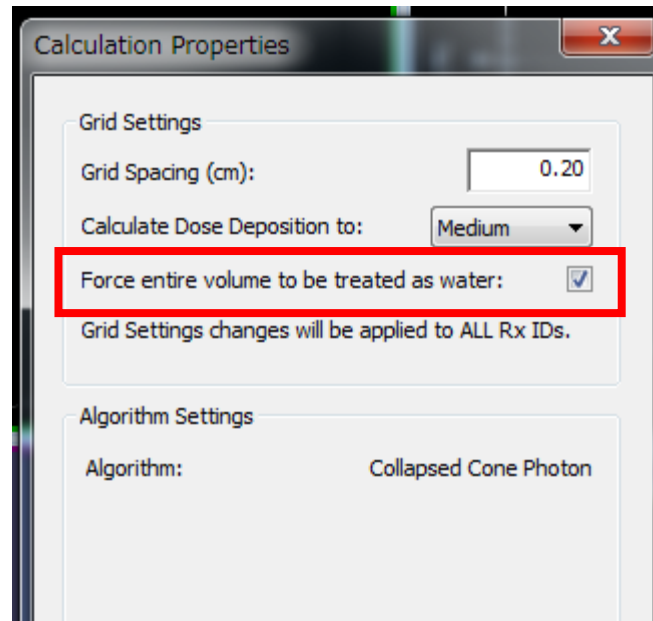
# 5. Calculation Propertiesの設定

「Calculation Properties」で計算条件の設定をします

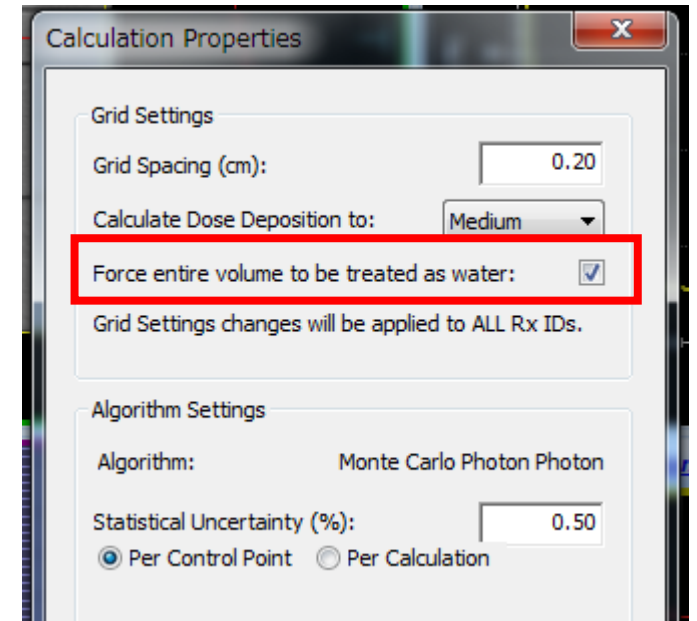
「Force entire volume to be treated as water」にチェックをいれてください



Collapsed Cone



Monte Carlo



※Monte Carloの場合は  
「Per Control Point」を選択

※「Grid Spacing」「Statistical  
Uncertainty」はコミッションング  
等で使用している設定にそろえ  
るのが望ましいです



## 6. 線量計算、MU値の確認

「Calculate」ボタンを押して線量計算をおこないます

照射MU値を「Prescription」タブより確認します

Monaco@JPTLKG6QM2 - [VirtualPhantom, VirtualPhantom, 30x30x30, 1]

Contouring Plan Options Planning Output

Optimize Calculate Calculation Properties

Beam: 1: AP Gantry: 0.0 MU cursor: 0.00 127.25

Fluence MU: 0.00

Grid Type: Dose 55

Volume Structure Units: 33.0 110.0

Plan Approval Status

Treatment Unit not approved for Clinical use: Testing

Y2 Y1

Prescription Segments

Add Rx Delete Rx

Rx ID	Rx Site	Prescribe To	X	Y	Z	Rx Dose (cGy)	Number of Fractions	Fractional Dose (cGy)
Physician's Intent	A	Plan Isocenter	0.00	0.00	2.00	100.0	1	100.0

Actual Dose = 100.0 cGy

Weight beams by:  Dose  MU Equal Weights

Beam	Description	Field ID	%	Lock	MU / Fx
1	AP		100.00	<input type="checkbox"/>	127.25

Total MU / Fx 127.25

