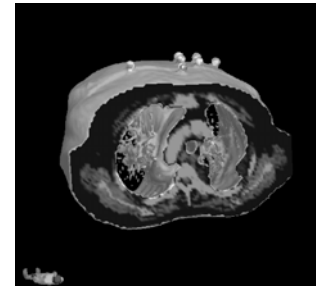


Scan Protocol (SRS/SRT) Extracranial



How to scan extracranial data for BrainLAB iPlan RT / ExacTrac software*:

FoV (Field of View) Scan Range	<ul style="list-style-type: none"> • For the Reference-CT: make sure to include all Bodymarkers and the outer contour • Recommended: Restrict scan range (total table movement) to necessary length. • Maximum scan length for ExacTrac 3.5 in combination with iPlan RT is 1000 mm and the absolute z-value must not exceed 500 mm (-500; +500). • Maximum scan length for ExacTrac 5.x and higher in combination with iPlan RT is 2000 mm. 				
Slice Thickness	<ul style="list-style-type: none"> • Sequential Scans. The resulting slice thickness is determined by table increment (slice distance) • Spiral/Helical Scan: Reconstructed images are allowed. • Slice distance may be changed during the scan. Max. 3 mm recommended for critical regions 				
Scan Properties	<table border="0"> <tr> <td style="vertical-align: top;">CT:</td> <td> <ul style="list-style-type: none"> • Axial only • Contrast agent allowed • Scan for soft tissue windowing (with Kernel of about 40). </td> </tr> <tr> <td style="vertical-align: top;">MRI:</td> <td> <ul style="list-style-type: none"> • Axial, sagittal, coronal • T1, T2, angiographic possible • Contrast agent allowed </td> </tr> </table>	CT:	<ul style="list-style-type: none"> • Axial only • Contrast agent allowed • Scan for soft tissue windowing (with Kernel of about 40). 	MRI:	<ul style="list-style-type: none"> • Axial, sagittal, coronal • T1, T2, angiographic possible • Contrast agent allowed
CT:	<ul style="list-style-type: none"> • Axial only • Contrast agent allowed • Scan for soft tissue windowing (with Kernel of about 40). 				
MRI:	<ul style="list-style-type: none"> • Axial, sagittal, coronal • T1, T2, angiographic possible • Contrast agent allowed 				
Gantry Tilt/Angulation	<p>For the Reference-CT (with Bodymarkers): No angulation allowed, strictly 0°</p> <p>For all additional Scans (CT or MRI, to be fused to Reference Set): any angulation possible</p>				
Patient Orientation Position	<ul style="list-style-type: none"> • Orientation “head first” or “feet first” • Supine or prone position for ExacTrac 3.5 or higher. (you must maintain the same position for all sets acquired for the same patient) 				
Scan direction	<ul style="list-style-type: none"> • Cranial to caudal or caudal to cranial. 				
Image/Pixel Size	<ul style="list-style-type: none"> • Must remain the same during the scan. 				
Table Height	<ul style="list-style-type: none"> • Must remain the same during the scan. 				
Image Compression	<ul style="list-style-type: none"> • Save images in uncompressed format. 				
Matrix Size	<p>Squared recommended, e.g.:</p> <ul style="list-style-type: none"> • 512 x 512 • 1024 x 1024 				

* iPlan RT 4.x and ExacTrac 3.5 or higher

* If you need additional information please contact your local BrainLAB Support Engineer

<p>Requirements for successful Prostate Segmentation</p>	<p>Scanning Region:</p> <ul style="list-style-type: none"> • Full extent of body in axial slices (i.e. no clipping in axial planes) • Minimum slice range: such that all organs of interest (prostate, bladder, rectum, seminal vesicles) are fully visible; the pelvis as a whole should be visible • Maximum slice range: the lowest slice of the scan must not be more than 5 to 10 cm below the anus; there are no restrictions on the uppermost slice (can e.g. be in stomach area or even thorax region) <p>Scanning Parameters:</p> <ul style="list-style-type: none"> • Only standard CT image data is allowed, axial only • No contrast agent (e.g. in bladder) • Parallel slices • Slice distance should be 3 mm or smaller • Pixel size should be 1mm or smaller. <p>Other Constraints:</p> <ul style="list-style-type: none"> • The usage of rectal ballons or gold markers may influence the result of the automatic segmentation.
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