

The Siemens logo is displayed in a teal, sans-serif font within a white rectangular box in the top-left corner of the image. The background of the entire slide is a photograph of a modern, multi-level atrium with a large, curved glass and steel structure, featuring several people walking on different levels.

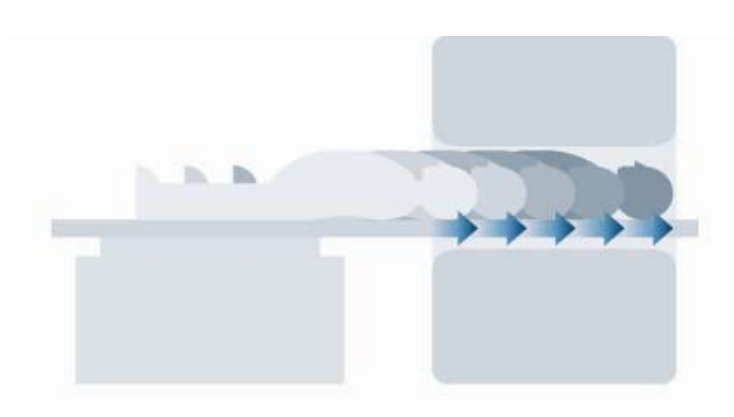
SIEMENS

MI University 360

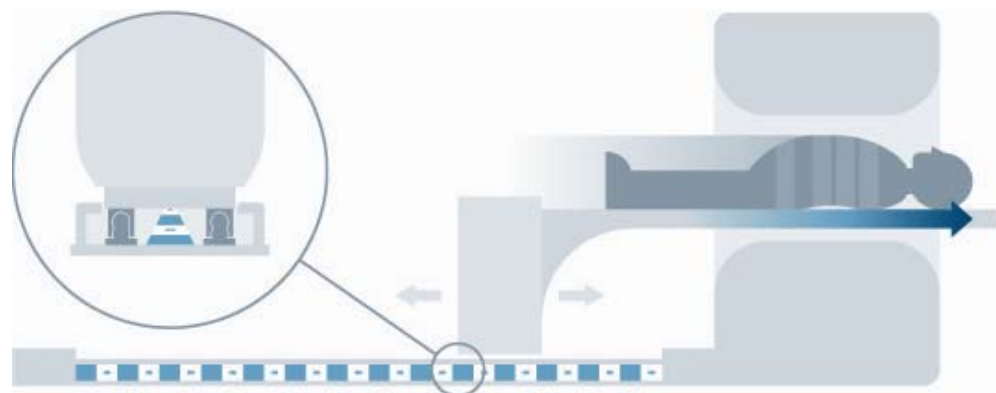
Biograph mCT Flow with FlowMotion Technology

Biograph mCT Flow*

Bed motion comparison



**Conventional
Stop-and-go**



**Magnetically
Driven Table**

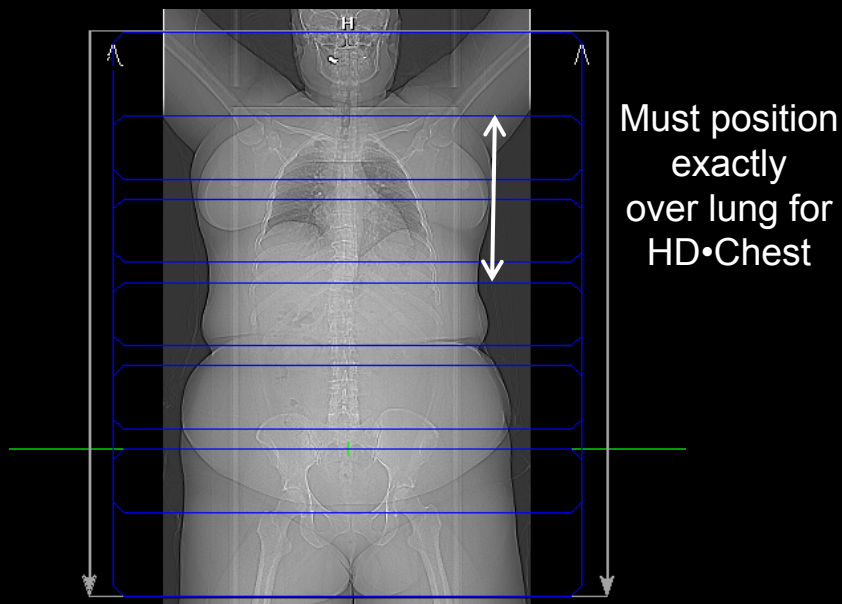
**Biograph mCT Flow™
FlowMotion™**

Feature	Stop-and-go	FlowMotion
Bed steps	1 to 15 beds	Single continuous scan
Motion	Steps	Continuous - variable
Bed overlap	20 to 50%	None
Patient experience	Abrupt	Smooth
Data collection	On and off	Continuous - on

Fast and Easy Workflow

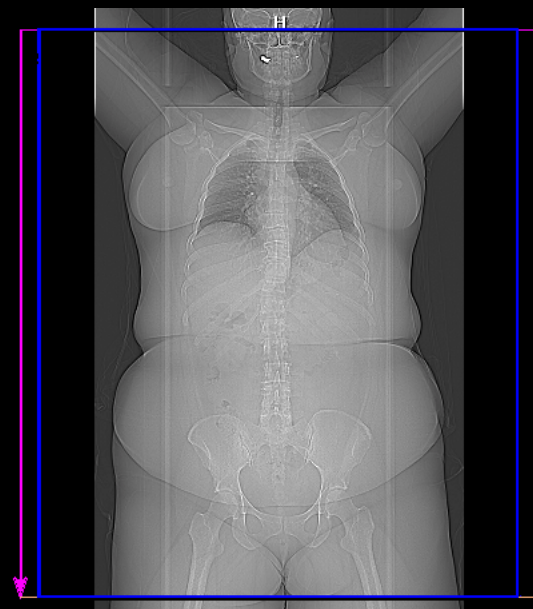
Scan range and zones

Conventional



Complex scan range definition for PET & CT
Scan range limited to full bed increments
Variable scan speed limited to bed increments
PET acquisition "off" during bed steps
Cluttered user interface

FlowMotion

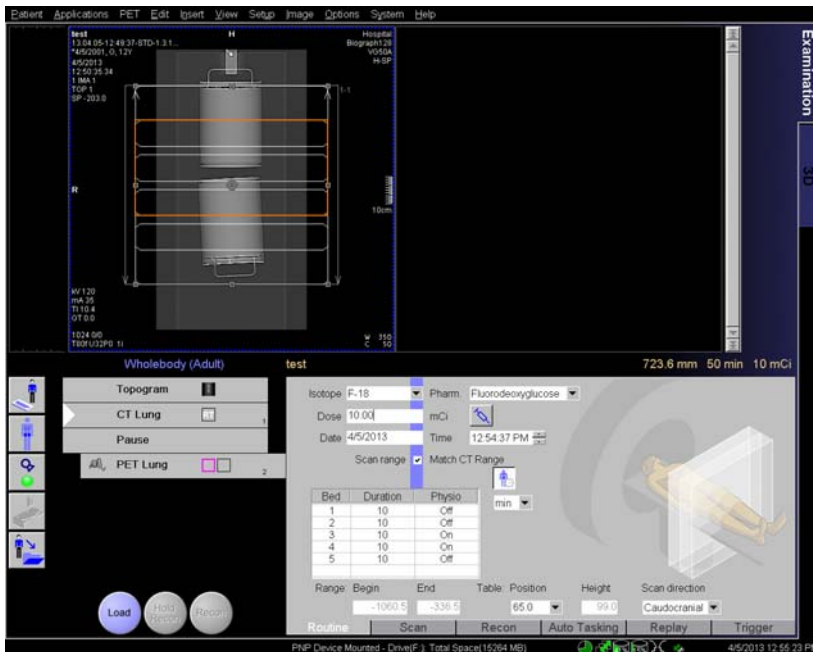


One rectangle defines PET & CT scan range
Any scan range is possible
Variable scan speed is patient specific
PET acquisition is always "on"
Clean user interface

Fast and Easy Workflow

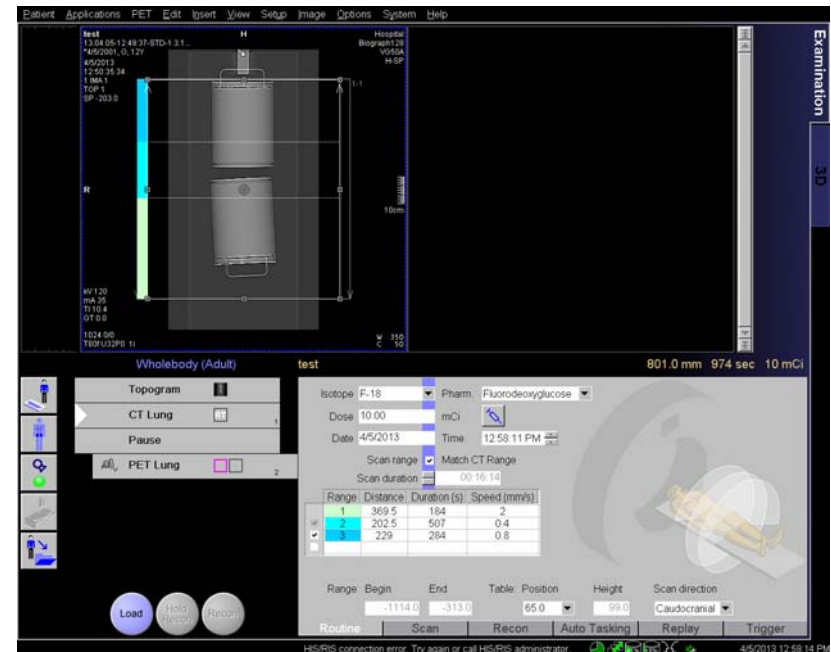
Scan range and zones

Stop-and-go



- More steps are required to setup step-and-shoot with variable speed

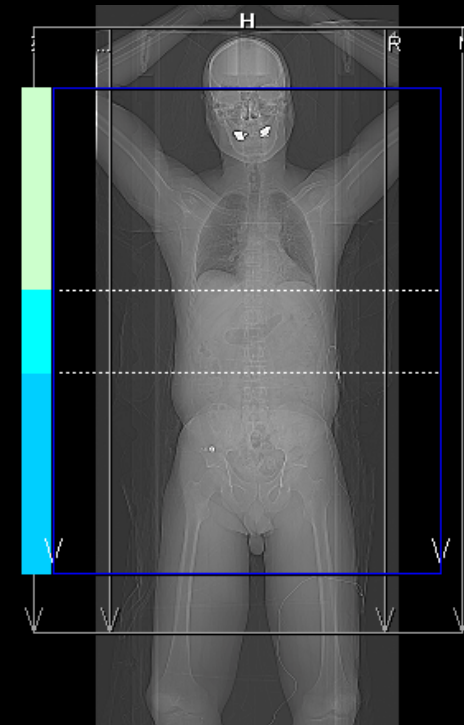
FlowMotion



- Easy integration of organ-focused features into every imaging protocol
- Less clicks to set-up a sophisticated imaging protocol

Fast and Easy Workflow Hints

- No more beds
- Create from one to four organ-based zones
- Determine scan range for each zone
- Select scan speed and resolution for each zone
- Duration updates automatically
- Select reconstruction by zone
- Easy planning of respiratory gating within selected zone(s)



	Range	Distance	Duration (s)	Speed (mm/s)
	1	368	182	1.5
✓	2	150	150	1
✓	3	368	386	1

Fast and Easy Workflow Hints

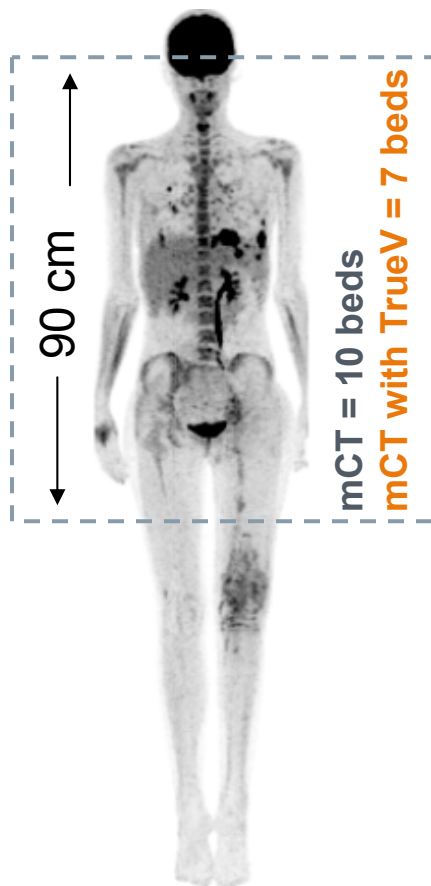
- Range and distance can only be adjusted using lines in topogram segment
- Adding a range:
 - Splits previous range distance and time in half
 - Speed is duplicated
- Removing a range:
 - Speed is maintained for remaining range
 - Distance and duration adjust
- Extending total scan range from end
 - Only that range time and distance is altered



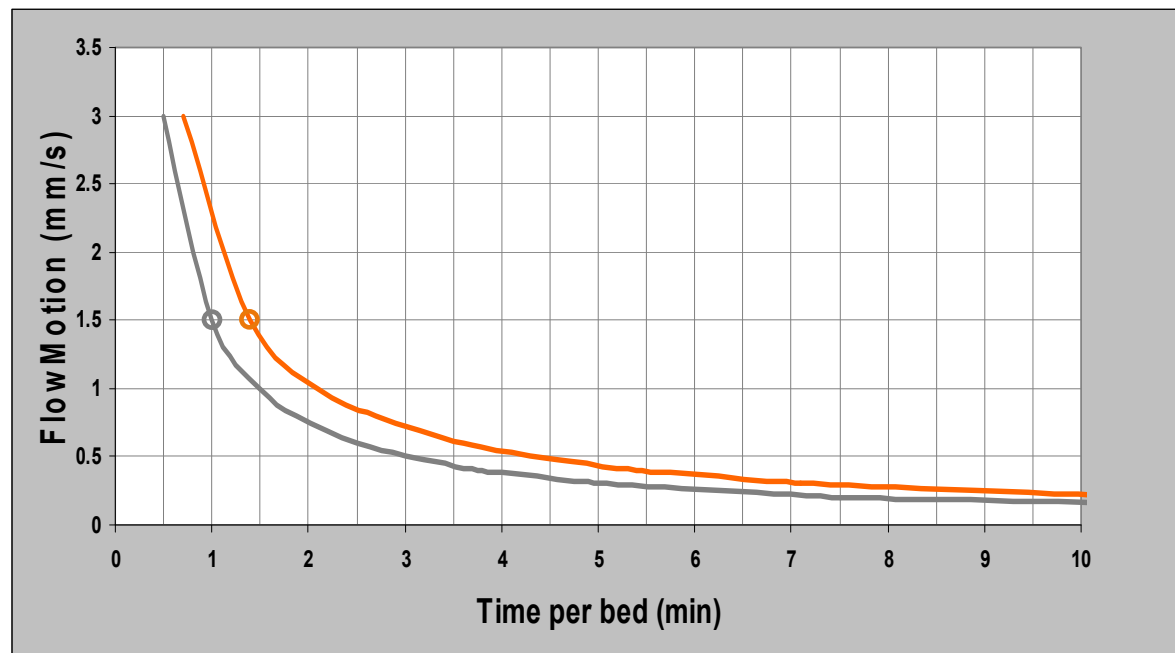
	Range	Distance	Duration (s)	Speed (mm/s)
	1	368	182	1.5
✓	2	150	150	1
✓	3	368	386	1

Stop-and-go vs. FlowMotion

Acquisition time vs. bed speed



10 mCi radiopharmaceutical,
60 mins uptake, 75 kg patient
10 min scan



— mCT 10 min scan = 1.0 min/bed or 1.5 mm/s

— mCT with TrueV 10 min scan = 1.3 min/bed or 1.5 mm/s

Stop-and-go vs. FlowMotion

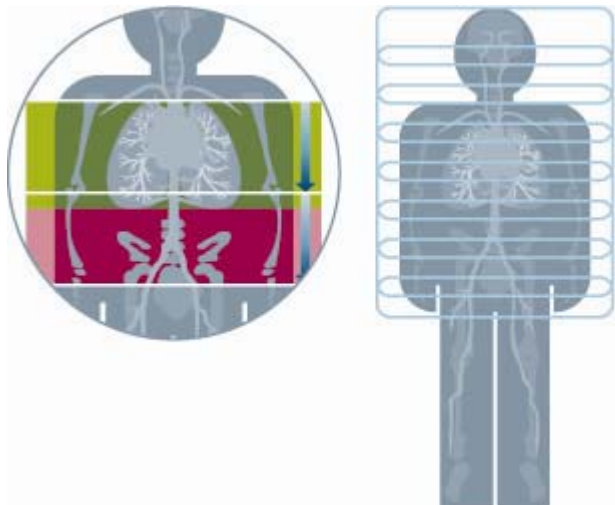
Acquisition time vs. bed speed

Biograph mCT Flow without TrueV	
Stop-and-go Acquisition Time (min/bed)	FlowMotion Bed Speed (mm/s)
1.00 (min/bed)	1.50 (mm/s)
1:30 (min/bed)	1.00 (mm/s)
2.00 (min/bed)	0.70 (mm/s)
2.30 (min/bed)	0.60 (mm/s)
3.00 (min/bed)	0.50 (mm/s)
4.00 (min/bed)	0.40 (mm/s)
5.00 (min/bed)	0.30 (mm/s)
6.00 (min/bed)	0.20 (mm/s)
10.00 (min/bed)	0.1 (mm/s)

Biograph mCT Flow with TrueV	
Stop-and-go Acquisition Time (min/bed)	FlowMotion Bed Speed (mm/s)
1.00 (min/bed)	2.10 (mm/s)
1:30 (min/bed)	1.50 (mm/s)
2.00 (min/bed)	1.10 (mm/s)
2.48 (min/bed)	0.80 (mm/s)
3.00 (min/bed)	0.70 (mm/s)
4.00 (min/bed)	0.50 (mm/s)
5.00 (min/bed)	0.40 (mm/s)
8.00 (min/bed)	0.30 (mm/s)
10.00 (min/bed)	0.2 (mm/s)

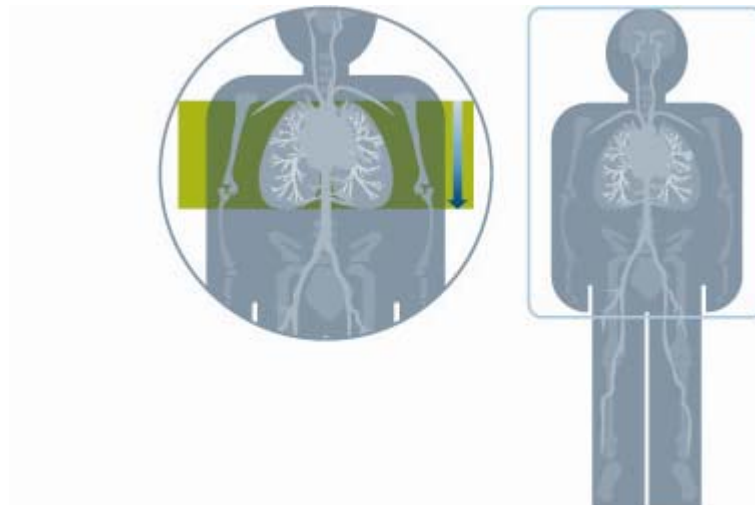
Minimum Dose and Maximum Speed

Conventional PET/CT



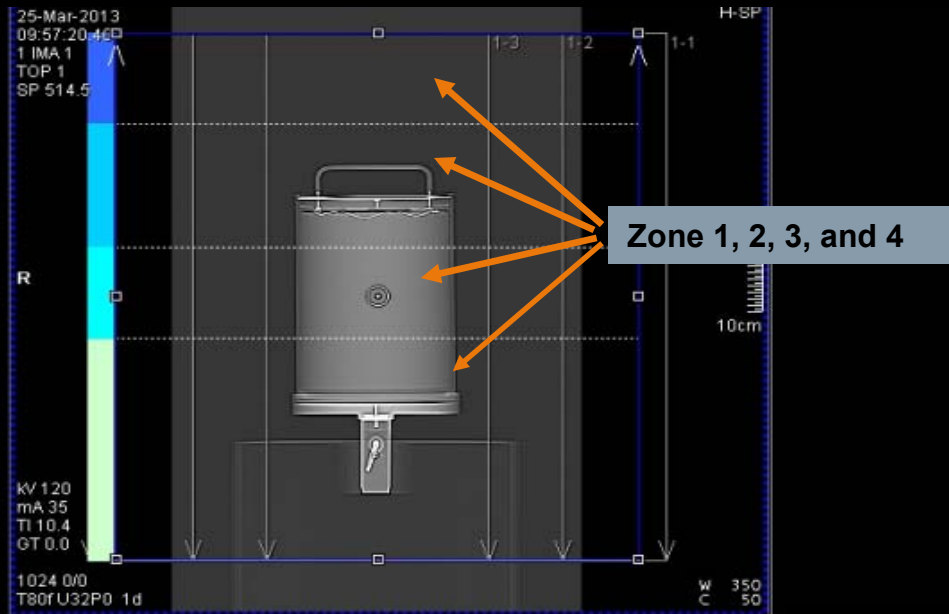
- No flexibility to plan less than a bed size if a single bed isn't enough results in CT overscan
- Protocols defined by bed positions limits flexibility

FlowMotion



- Dose saving by eliminating CT dose due to overscanning
- Enables CT-like planning for PET to scan only desired area

Reconstruction



One to four individual or contiguous zones can be reconstructed, or the user can choose “Custom” and define any zone within the entire scan range.

WholebodyCBM (Adult) test

Topogram	<input checked="" type="checkbox"/>
CT WB	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> 1
Pause	
PET WB	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> 2

Recon job 1 2 3 4 5 6 7 8 Series description

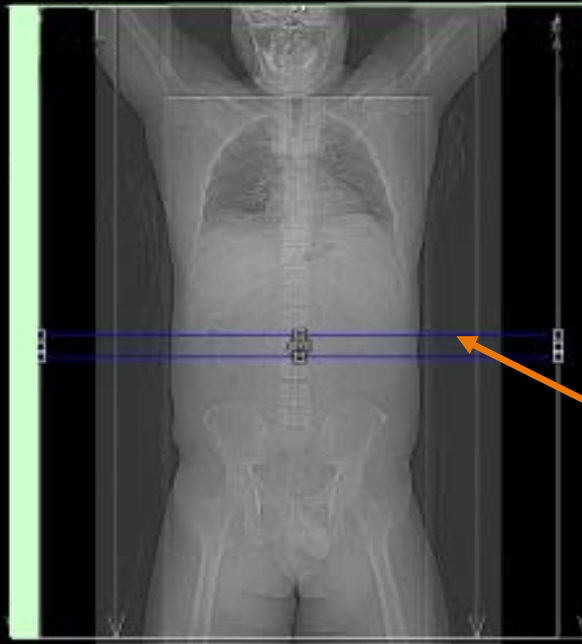
Recon range Custom Begin -395.5 End 405.5

Output ALL

Iterative 1 2 3 4 Custom

Subsets 21

Reconstruction Parameters



Minimum scan range is equal to 1 PET FoV

Minimum reconstruction range is 3 cm

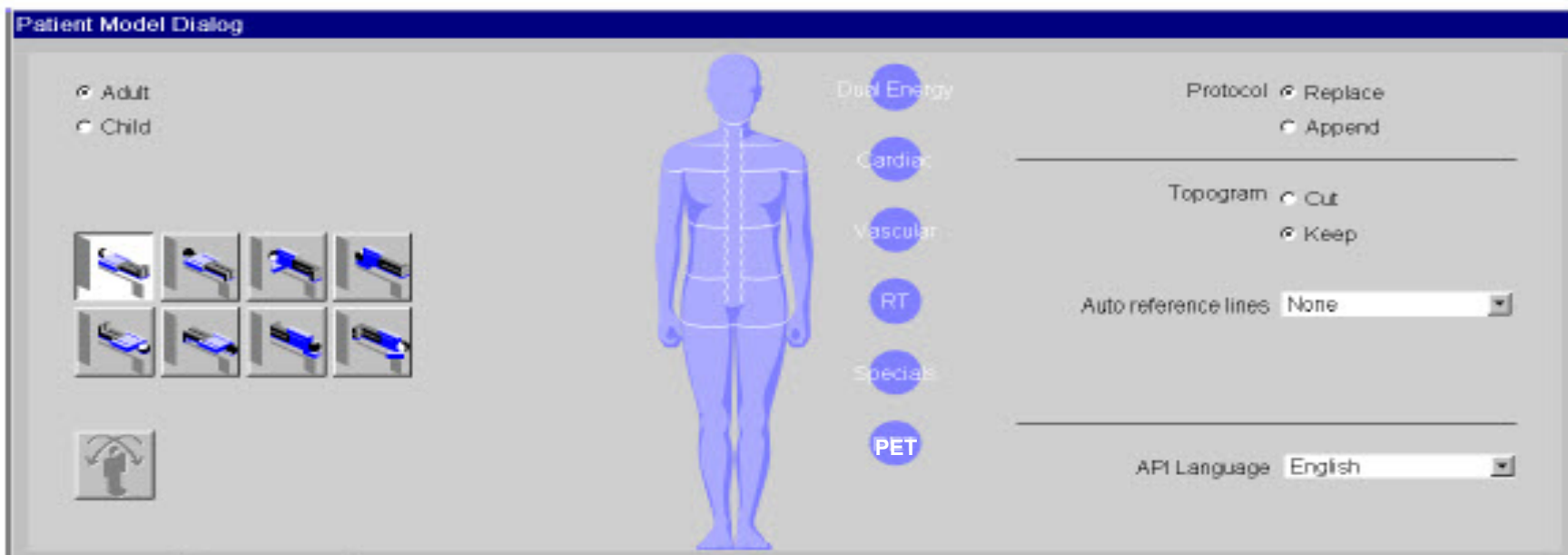
Many options for reconstruction

Custom range
minimum 3cm

Recon job	1	2	3	4	5	6	7	8	Series description
	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Recon range	Custom		Begin		-570.0		End		-539.6
Output Image type	Uncorrected								
Recon method	Iterative+TOF								
Iterations	3		Subsets		21				

Standard Predefined Exam Protocols

Patient model dialog



- Predefined PET and PET/CT scan protocols by hovering over the PET button
- FlowMotion protocols contain “CBM”

WholebodyCBM

WholebodyListmodeCBM

RespiratoryGatedCBM

WholebodyDynamicCBM

WholebodyTopoCBM

RespGatedCBM_RespMatching



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