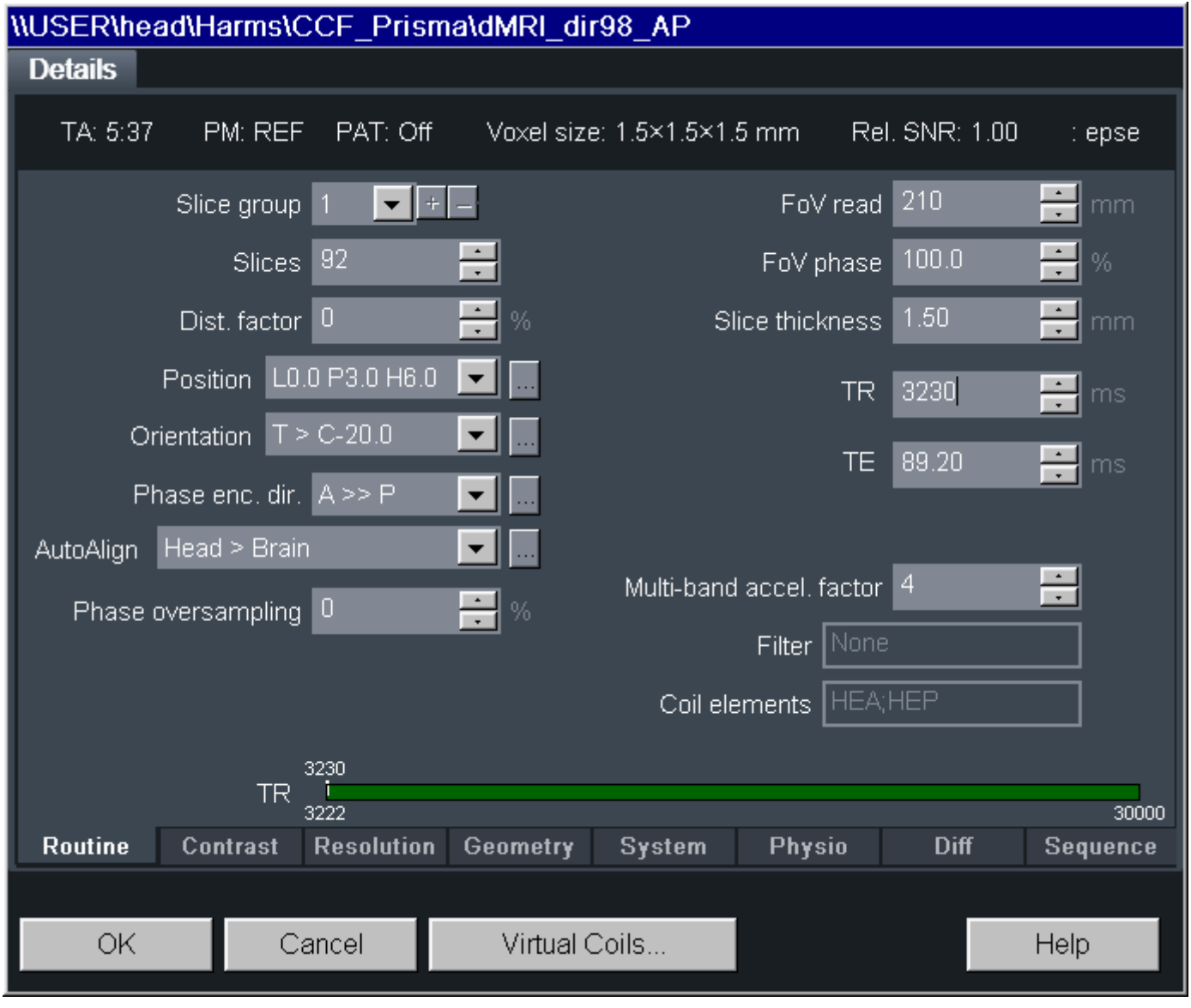
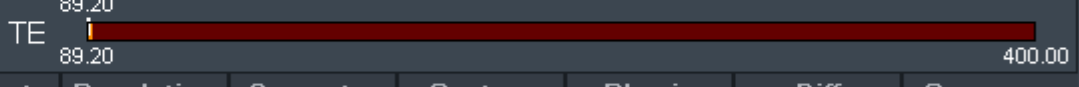

\\USER\head\Harms\CCF_Prisma\dMRI_dir98_AP
Details
TA: 5:37
PM: REF
PAT: Off
Voxel size: 1.5×1.5×1.5 mm
Rel. SNR: 1.00
: epse
Slice group
1
Slices
92
Dist. factor
0
%
Position
L0.0 P3.0 H6.0
Orientation
T > C-20.0
Phase enc. dir.
A >> P
AutoAlign
Head > Brain
Phase oversampling
0
%
FoV read
210
mm
FoV phase
100.0
%
Slice thickness
1.50
mm
TR
3230
ms
TE
89.20
ms
Multi-band accel. factor
4
Filter
None
Coil elements
HEA;HEP
TR
3230
3222
30000
Routine
Contrast
Resolution
Geometry
System
Physio
Diff
Sequence
OK
Cancel
Virtual Coils...
Help

\\USER\head\Harms\CCF_Prisma\dMRI_dir98_AP

Details

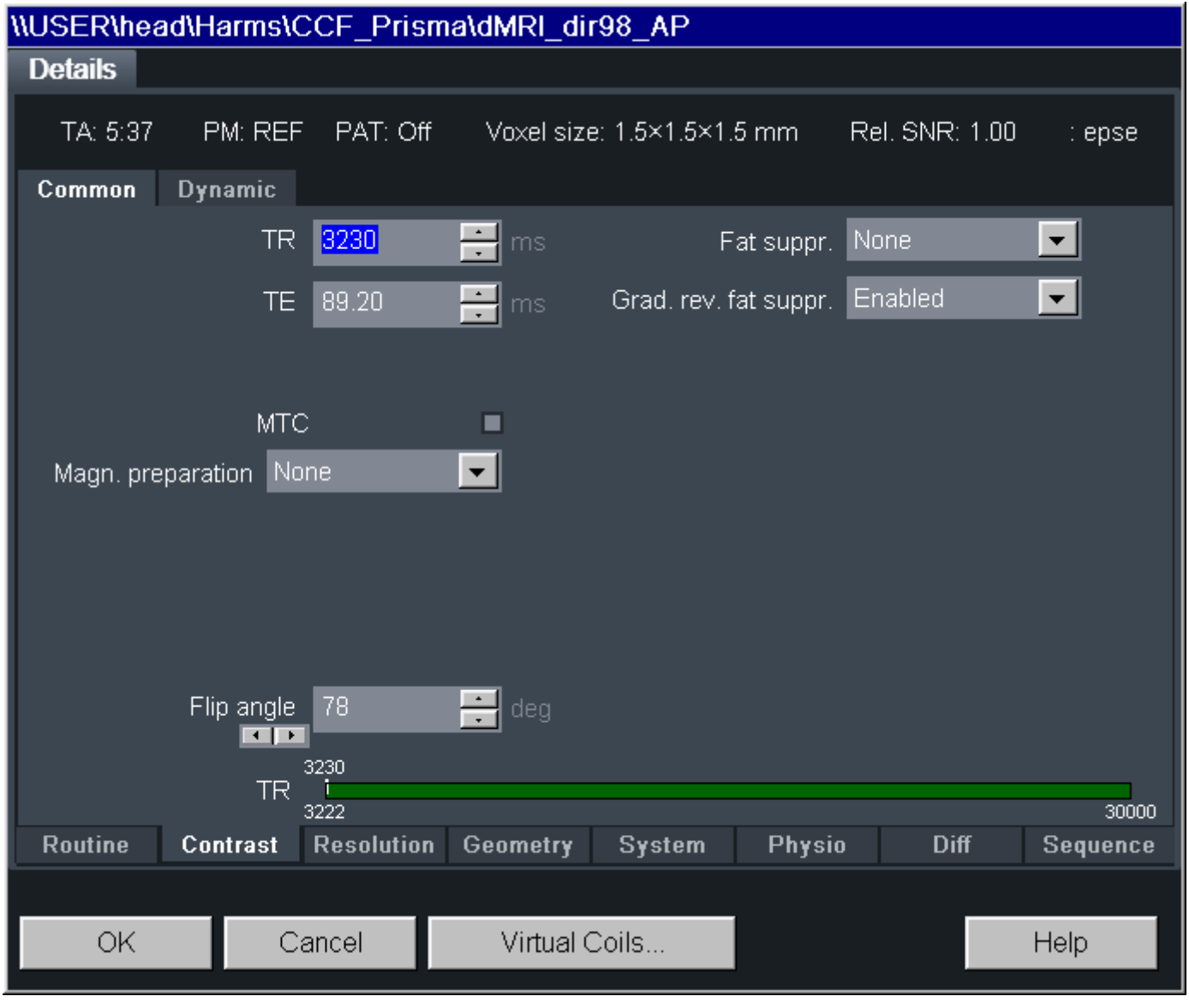
TA: 5:37 PM: REF PAT: Off Voxel size: 1.5×1.5×1.5 mm Rel. SNR: 1.00 : epse

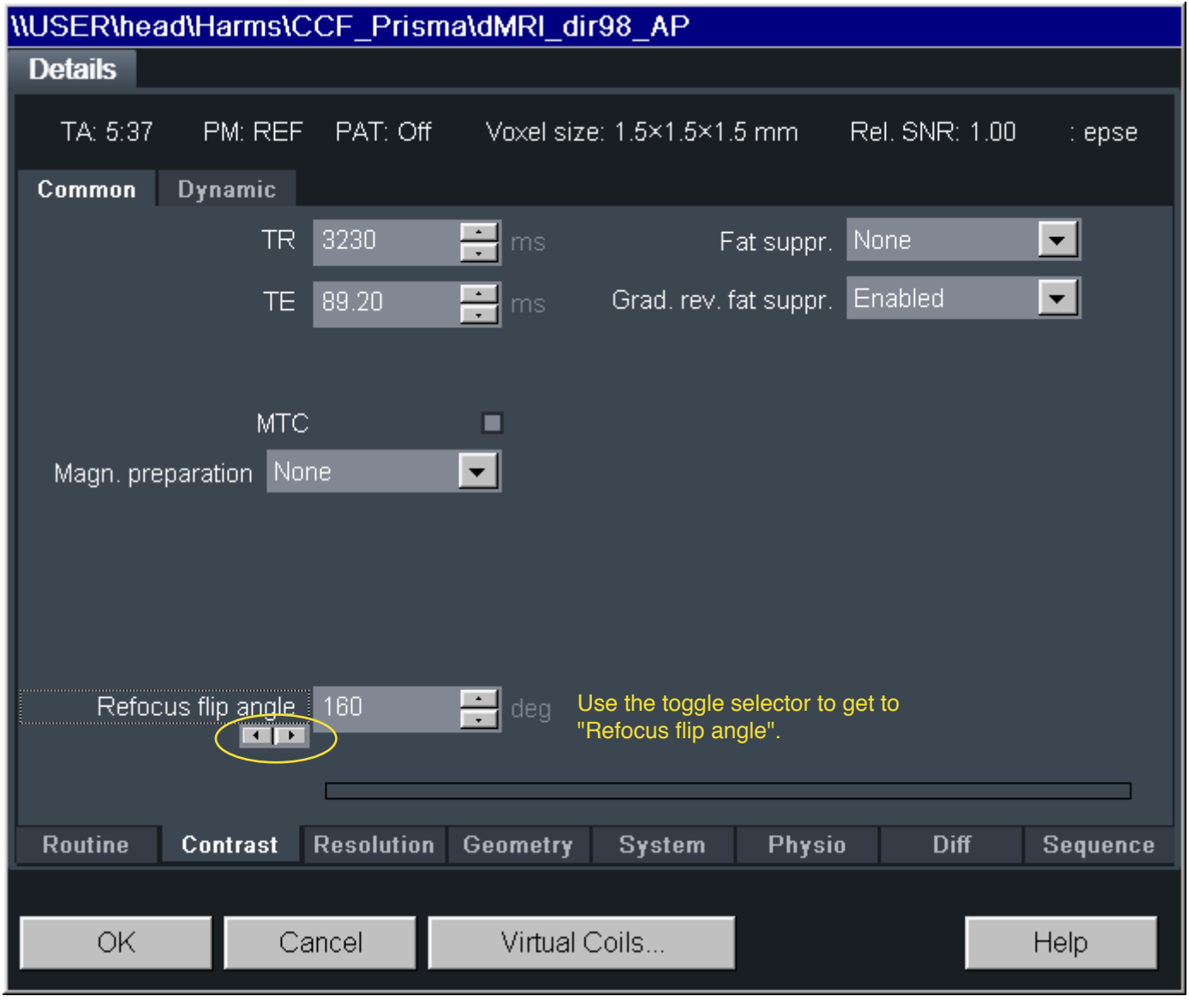
Slice group	1		FoV read	210	mm
Slices	92		FoV phase	100.0	%
Dist. factor	0	%	Slice thickness	1.50	mm
Position	L0.0 P3.0 H6.0		TR	3230	ms
Orientation	T > C-20.0		TE	89.20	ms
Phase enc. dir.	A >> P				
AutoAlign	Head > Brain		Multi-band accel. factor	4	
Phase oversampling	0	%	Filter	None	
			Coil elements	HEA;HEP	

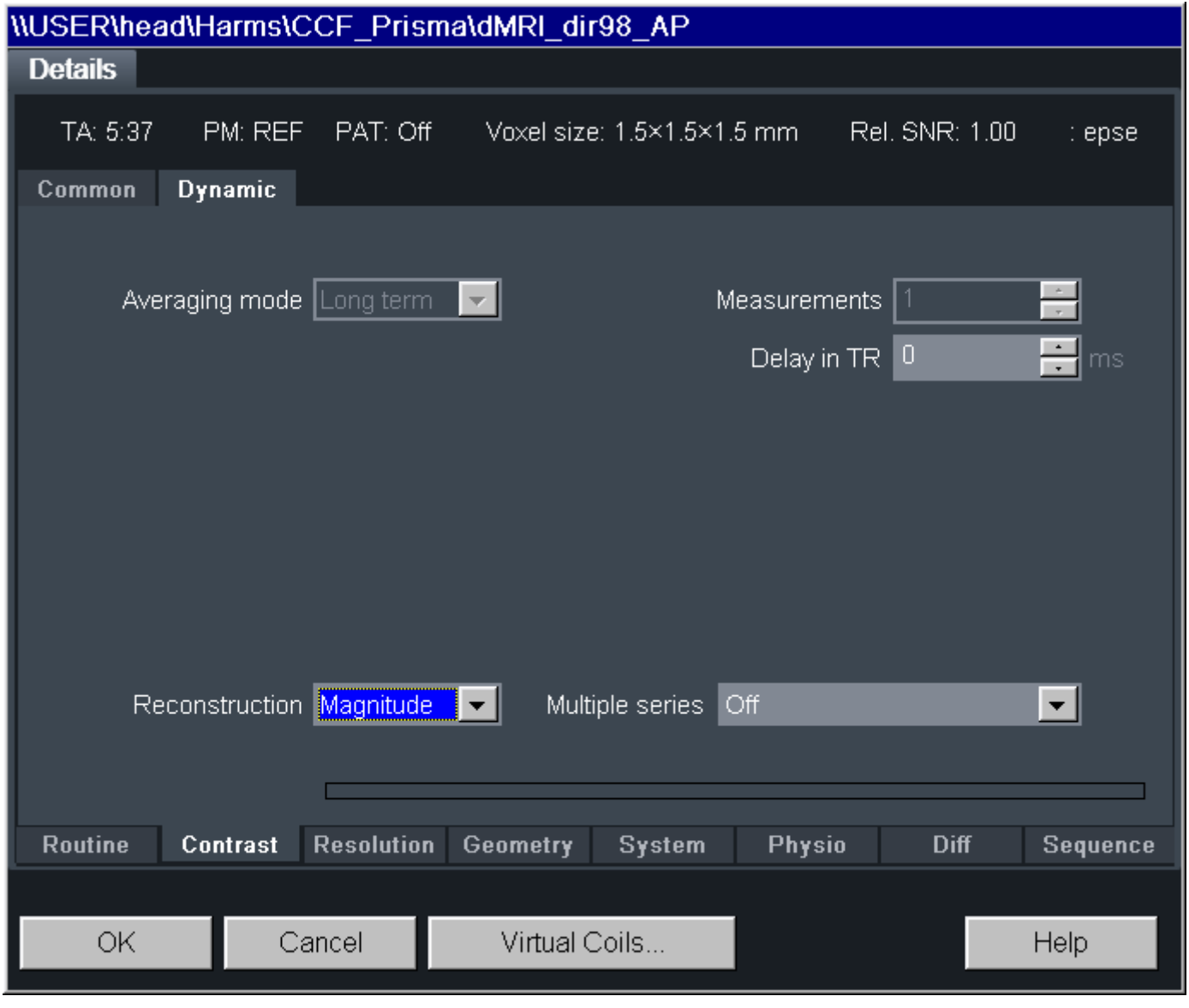


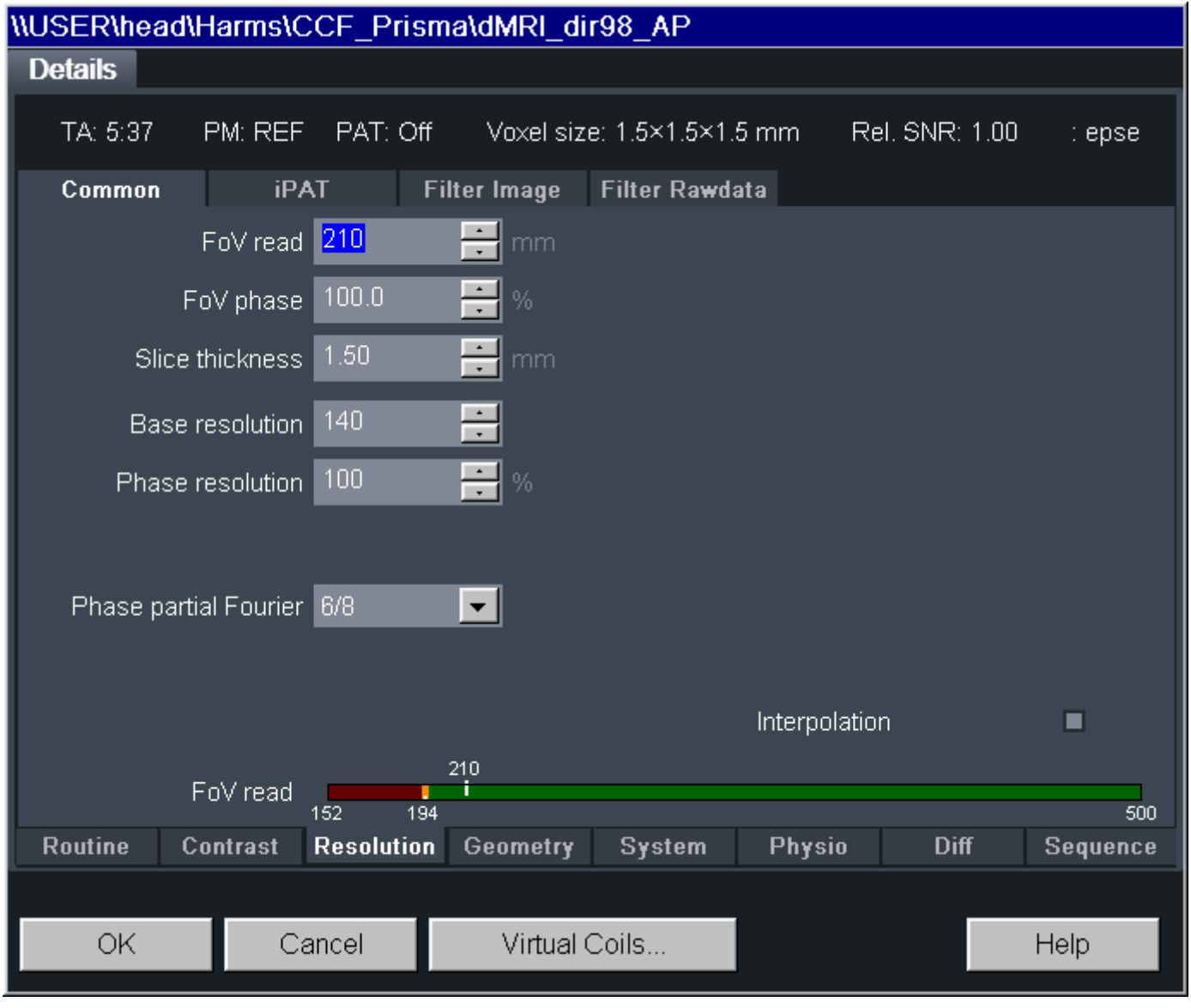
Routine | Contrast | Resolution | Geometry | System | Physio | Diff | Sequence

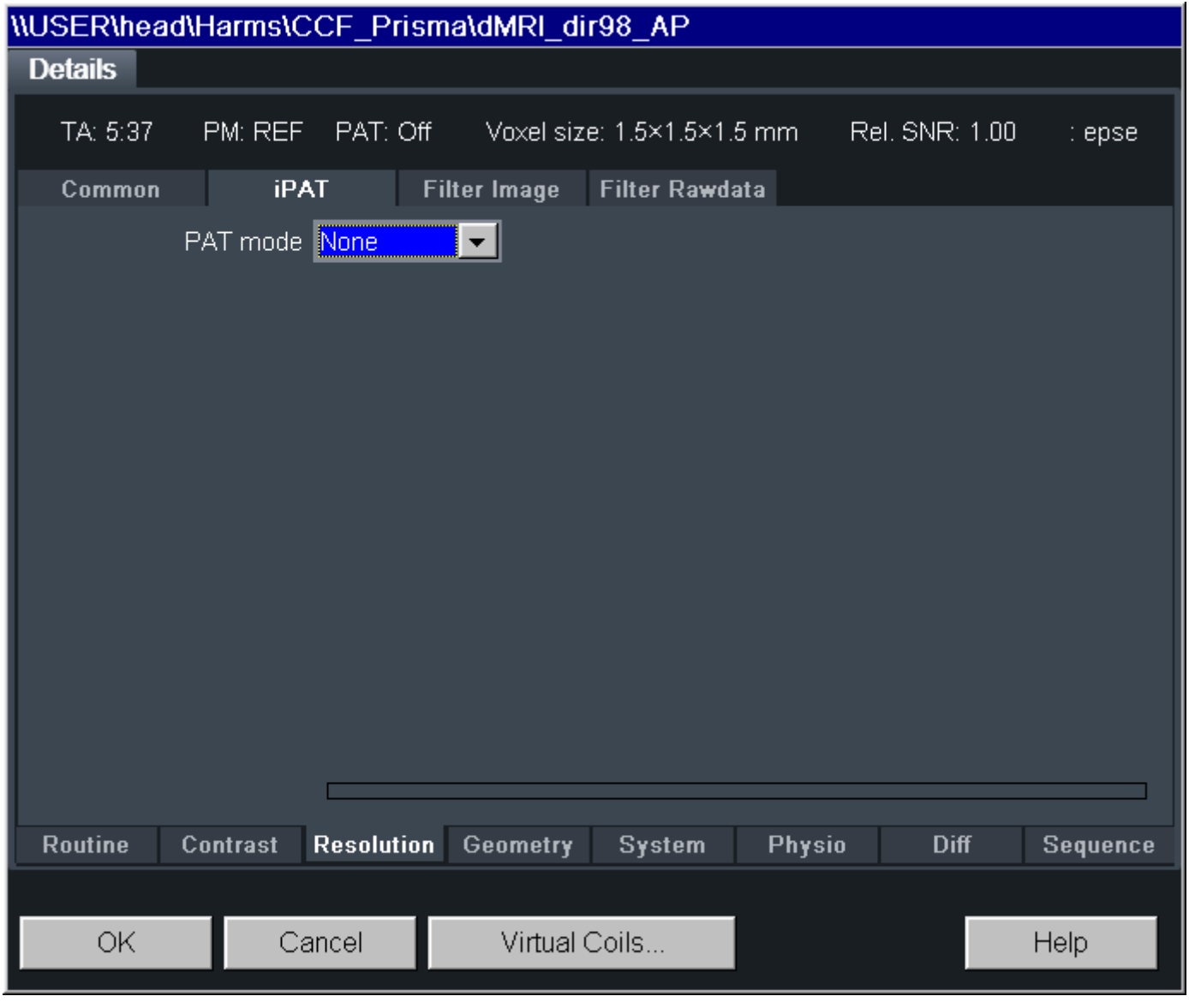
OK | Cancel | Virtual Coils... | Help

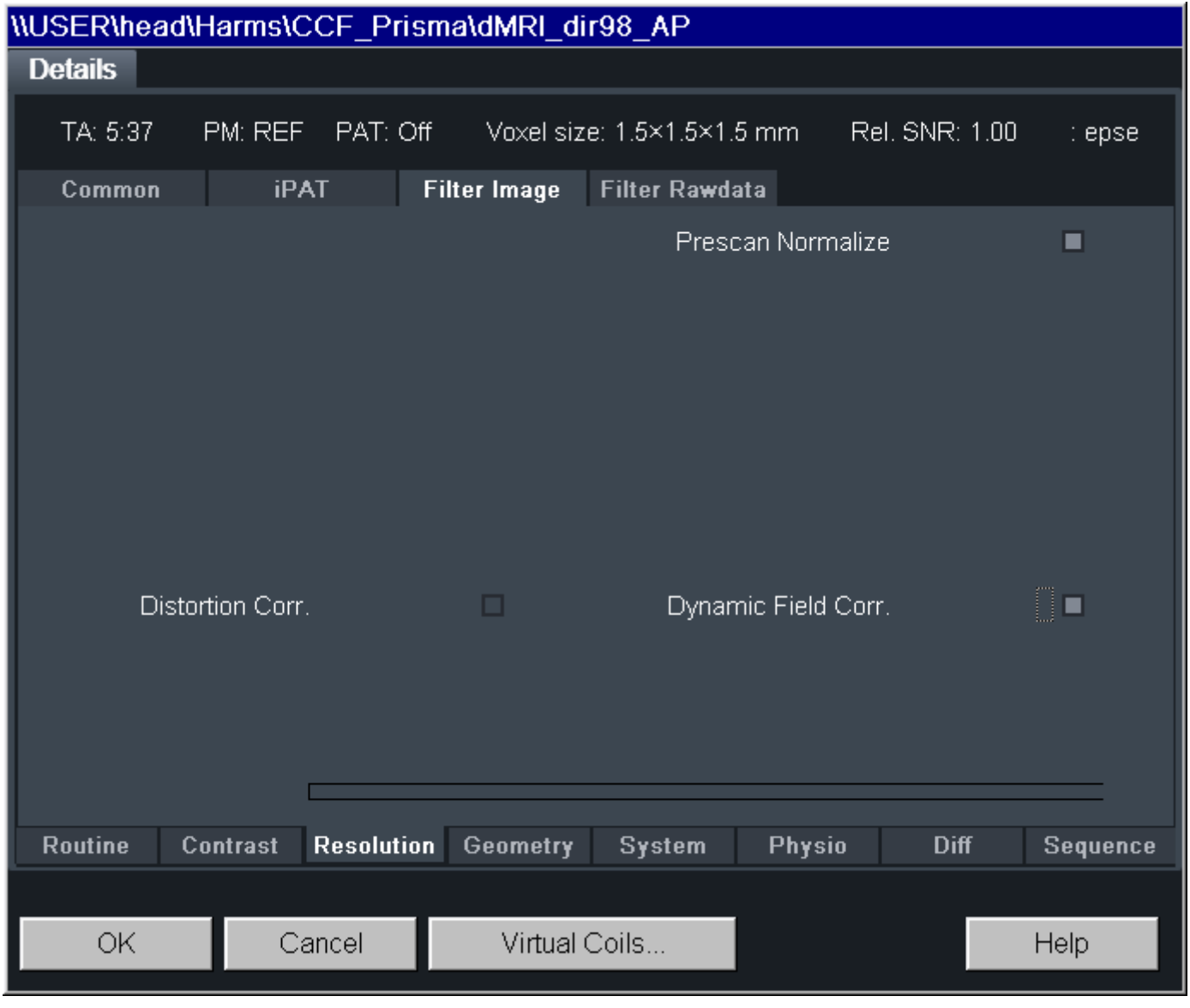

\\USER\head\Harms\CCF_Prisma\dMRI_dir98_AP
Details
TA: 5:37
PM: REF
PAT: Off
Voxel size: 1.5×1.5×1.5 mm
Rel. SNR: 1.00
: epse
Common
Dynamic
TR
3230
ms
TE
89.20
ms
Fat suppr.
None
Grad. rev. fat suppr.
Enabled
MTC
Magn. preparation
None
Flip angle
78
deg
TR
3230
3222
30000
Routine
Contrast
Resolution
Geometry
System
Physio
Diff
Sequence
OK
Cancel
Virtual Coils...
Help

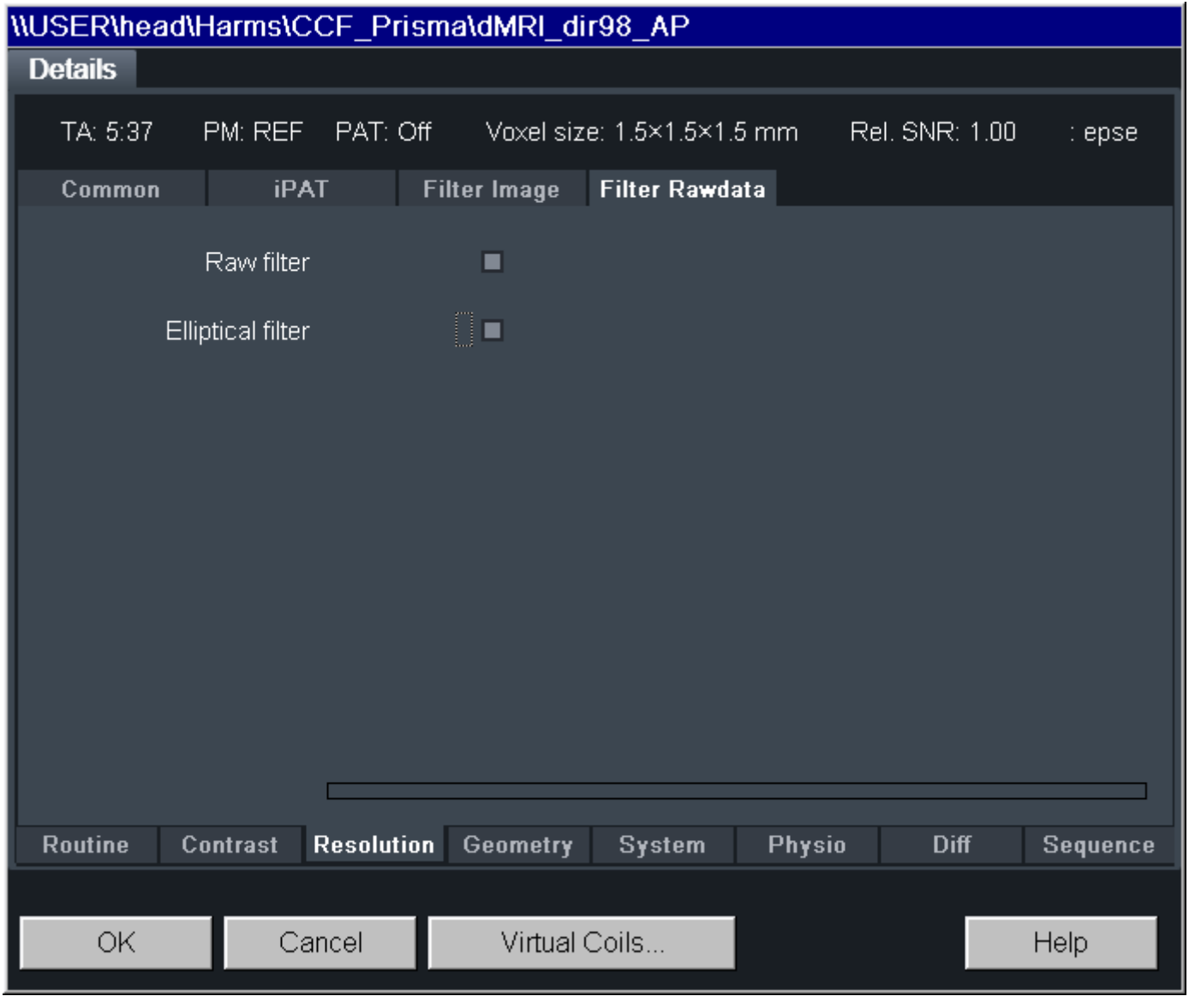

\\USER\head\Harms\CCF_Prisma\dMRI_dir98_AP
Details
TA: 5:37
PM: REF
PAT: Off
Voxel size: 1.5×1.5×1.5 mm
Rel. SNR: 1.00
: epse
Common
Dynamic
TR
3230
ms
TE
89.20
ms
Fat suppr.
None
Grad. rev. fat suppr.
Enabled
MTC
Magn. preparation
None
Refocus flip angle
160
deg
Use the toggle selector to get to "Refocus flip angle".
Routine
Contrast
Resolution
Geometry
System
Physio
Diff
Sequence
OK
Cancel
Virtual Coils...
Help

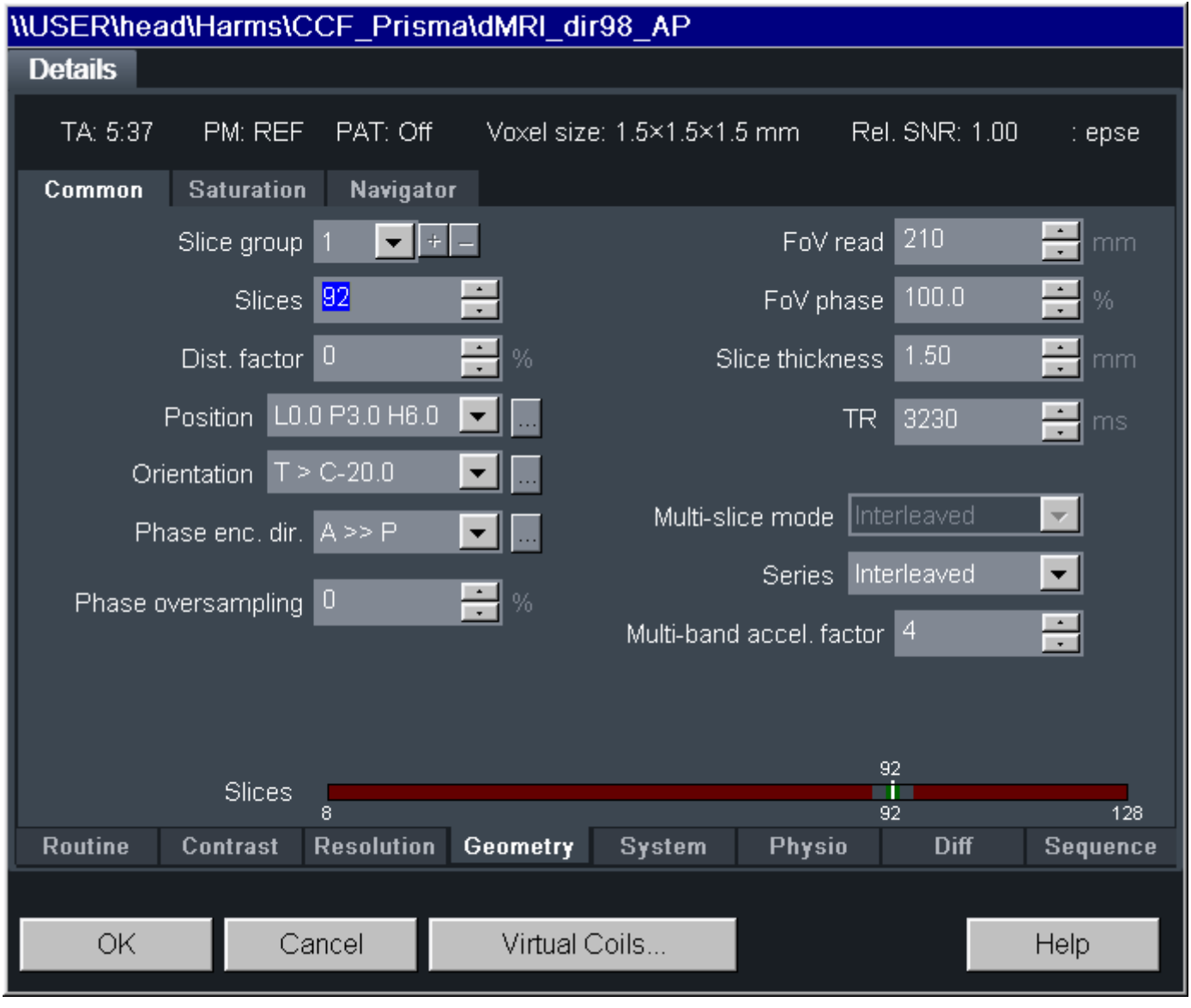

\\USER\head\Harms\CCF_Prisma\dMRI_dir98_AP
Details
TA: 5:37
PM: REF
PAT: Off
Voxel size: 1.5×1.5×1.5 mm
Rel. SNR: 1.00
: epse
Common
Dynamic
Averaging mode
Long term
Measurements
1
Delay in TR
0
ms
Reconstruction
Magnitude
Multiple series
Off
Routine
Contrast
Resolution
Geometry
System
Physio
Diff
Sequence
OK
Cancel
Virtual Coils...
Help

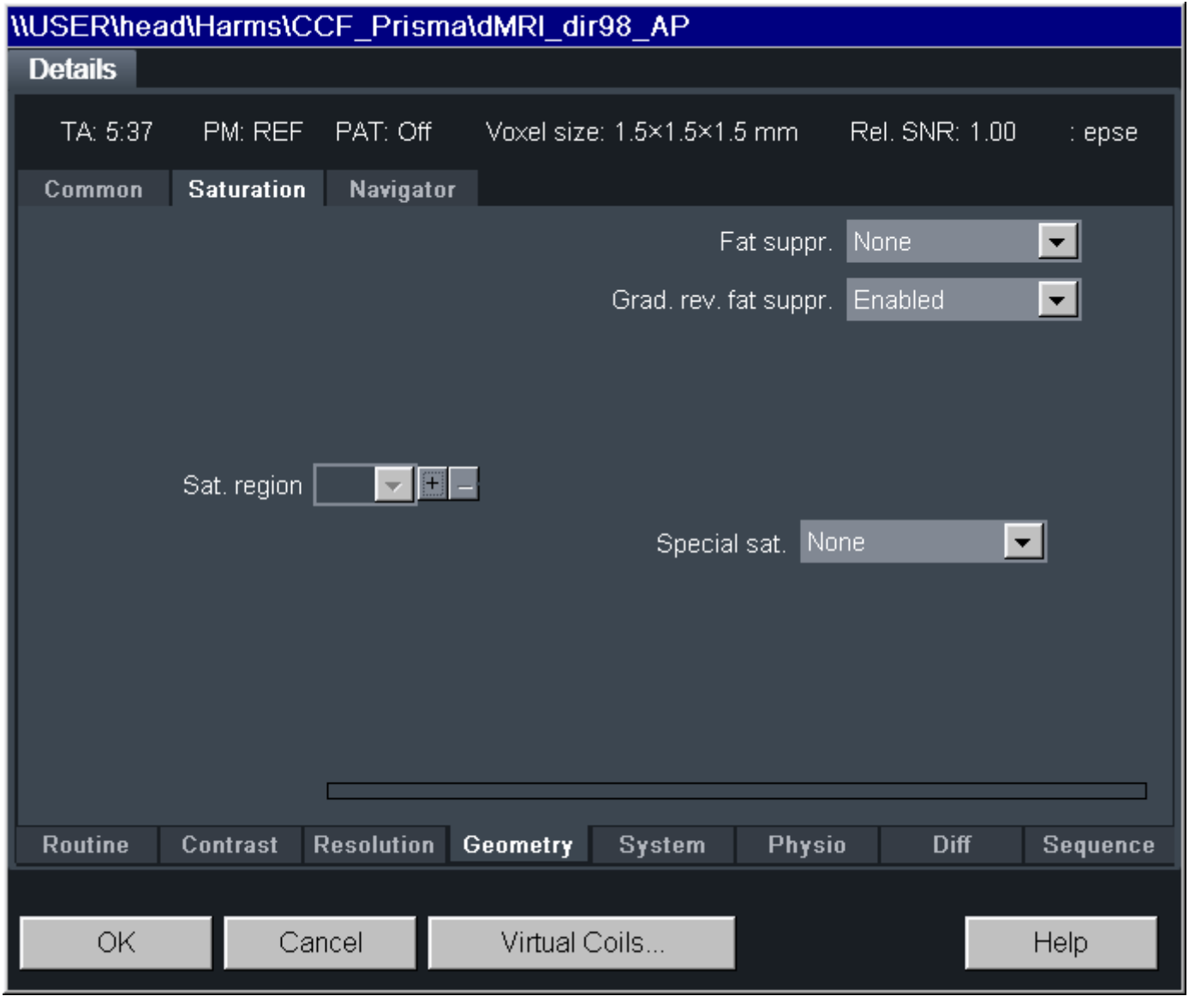

\\USER\head\Harms\CCF_Prisma\dMRI_dir98_AP
Details
TA: 5:37
PM: REF
PAT: Off
Voxel size: 1.5×1.5×1.5 mm
Rel. SNR: 1.00
: epse
Common
iPAT
Filter Image
Filter Rawdata
FoV read
210
mm
FoV phase
100.0
%
Slice thickness
1.50
mm
Base resolution
140
Phase resolution
100
%
Phase partial Fourier
6/8
Interpolation
FoV read
210
152
194
500
Routine
Contrast
Resolution
Geometry
System
Physio
Diff
Sequence
OK
Cancel
Virtual Coils...
Help

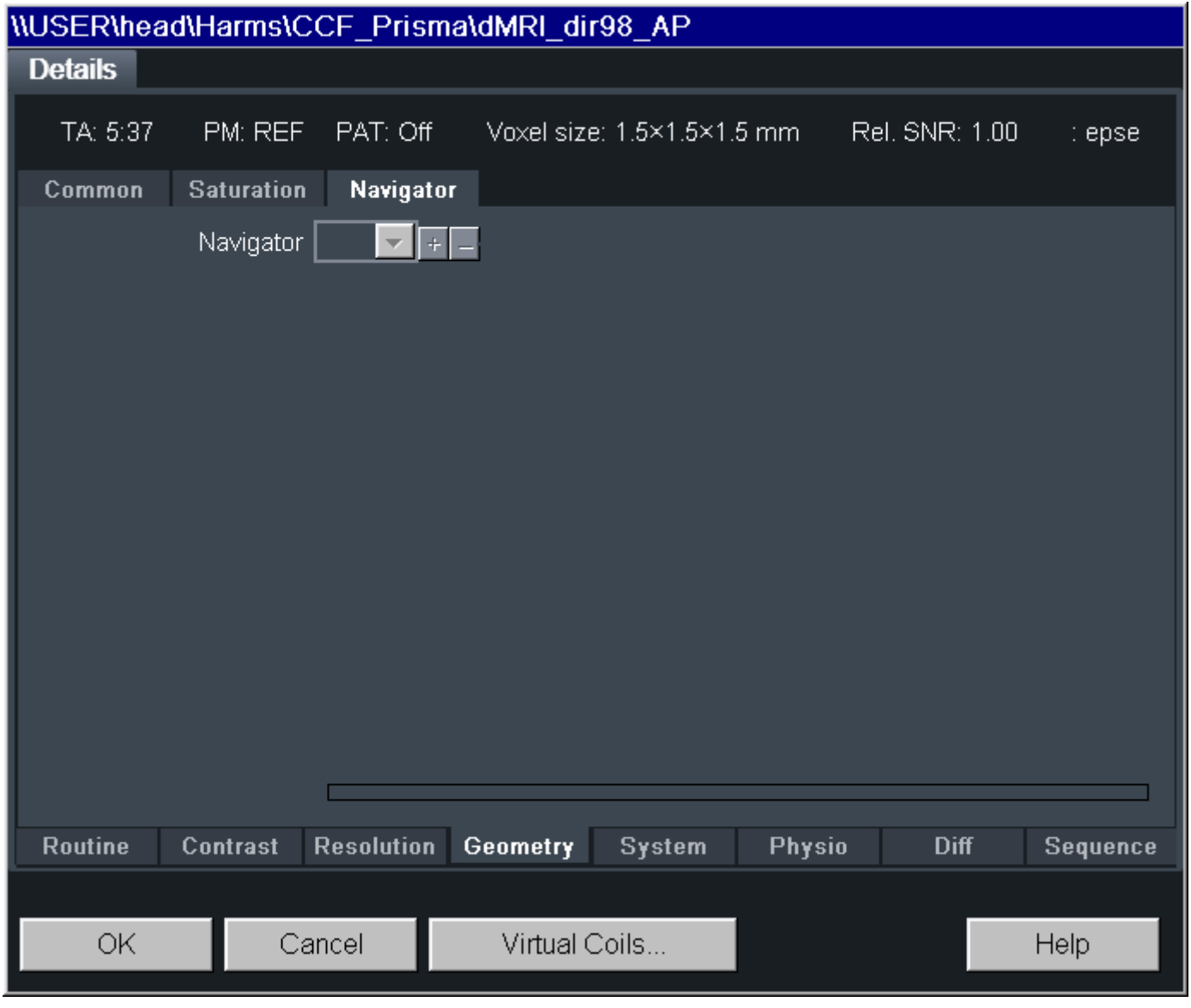

\\USER\head\Harms\CCF_Prisma\dMRI_dir98_AP
Details
TA: 5:37
PM: REF
PAT: Off
Voxel size: 1.5×1.5×1.5 mm
Rel. SNR: 1.00
: epse
Common
iPAT
Filter Image
Filter Rawdata
PAT mode
None
Routine
Contrast
Resolution
Geometry
System
Physio
Diff
Sequence
OK
Cancel
Virtual Coils...
Help

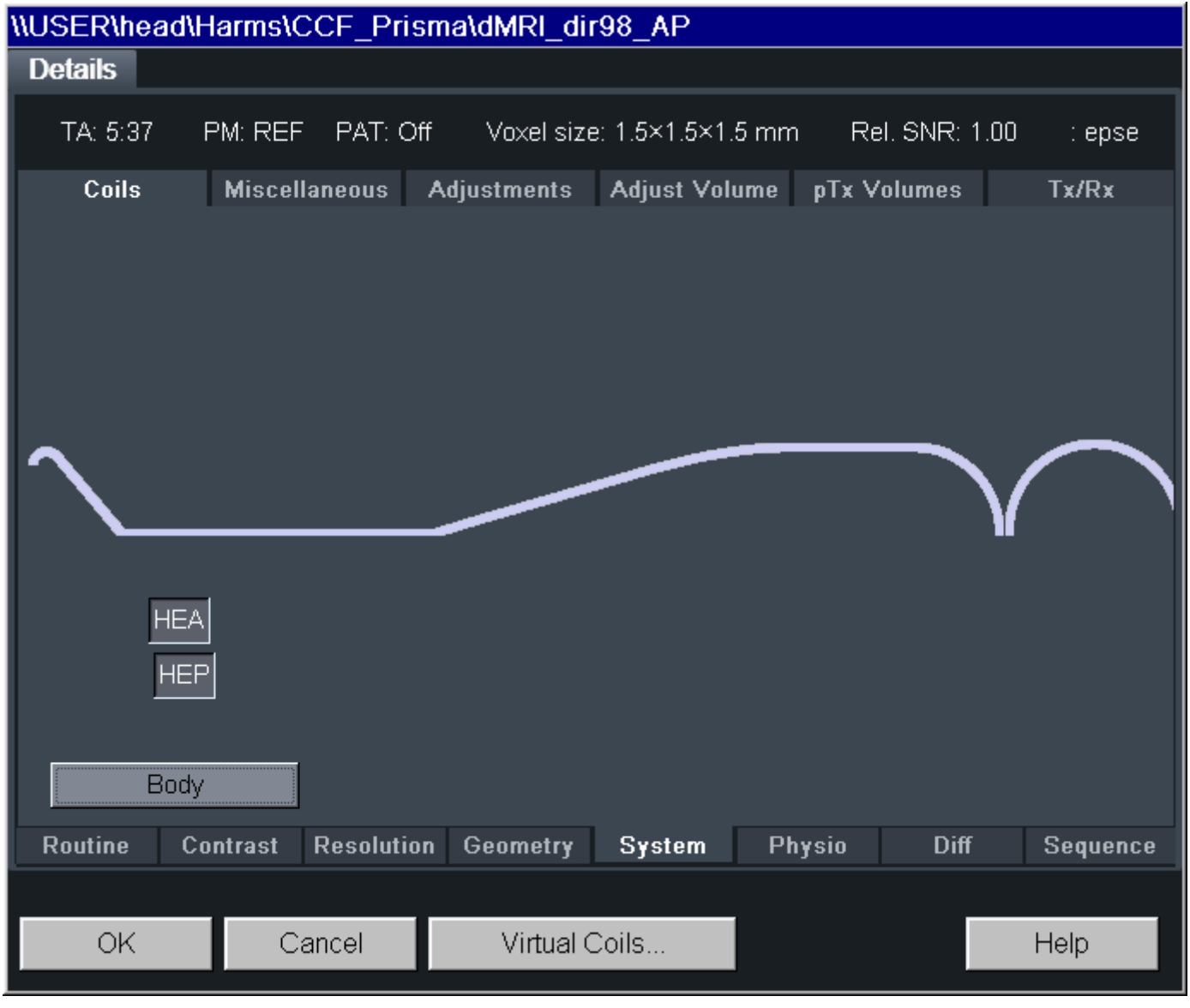

\\USER\head\Harms\CCF_Prisma\dMRI_dir98_AP
Details
TA: 5:37
PM: REF
PAT: Off
Voxel size: 1.5×1.5×1.5 mm
Rel. SNR: 1.00
: epse
Common
iPAT
Filter Image
Filter Rawdata
Prescan Normalize
Distortion Corr.
Dynamic Field Corr.
Routine
Contrast
Resolution
Geometry
System
Physio
Diff
Sequence
OK
Cancel
Virtual Coils...
Help

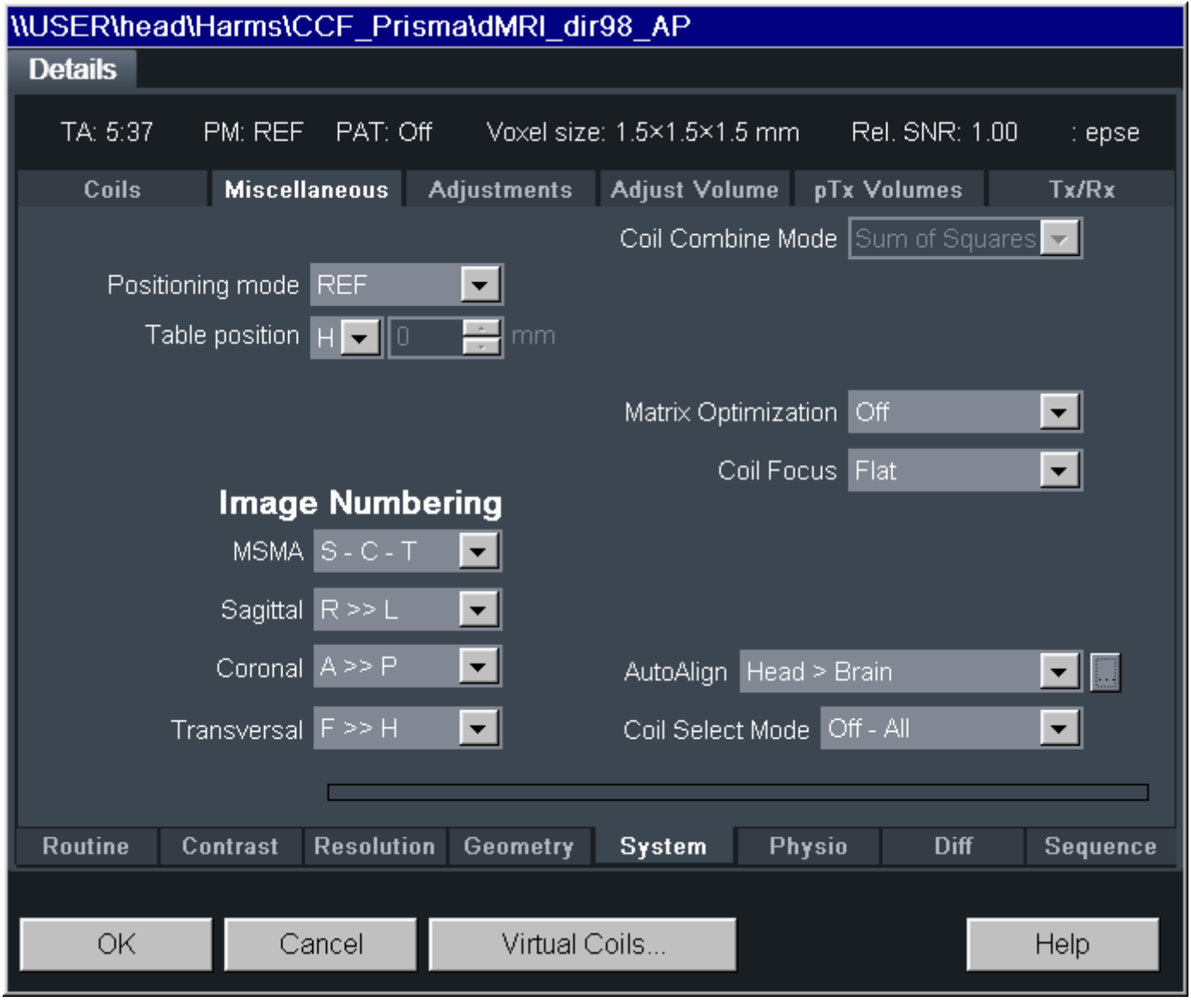

\\USER\head\Harms\CCF_Prisma\dMRI_dir98_AP
Details
TA: 5:37
PM: REF
PAT: Off
Voxel size: 1.5×1.5×1.5 mm
Rel. SNR: 1.00
: epse
Common
iPAT
Filter Image
Filter Rawdata
Raw filter
Elliptical filter
Routine
Contrast
Resolution
Geometry
System
Physio
Diff
Sequence
OK
Cancel
Virtual Coils...
Help

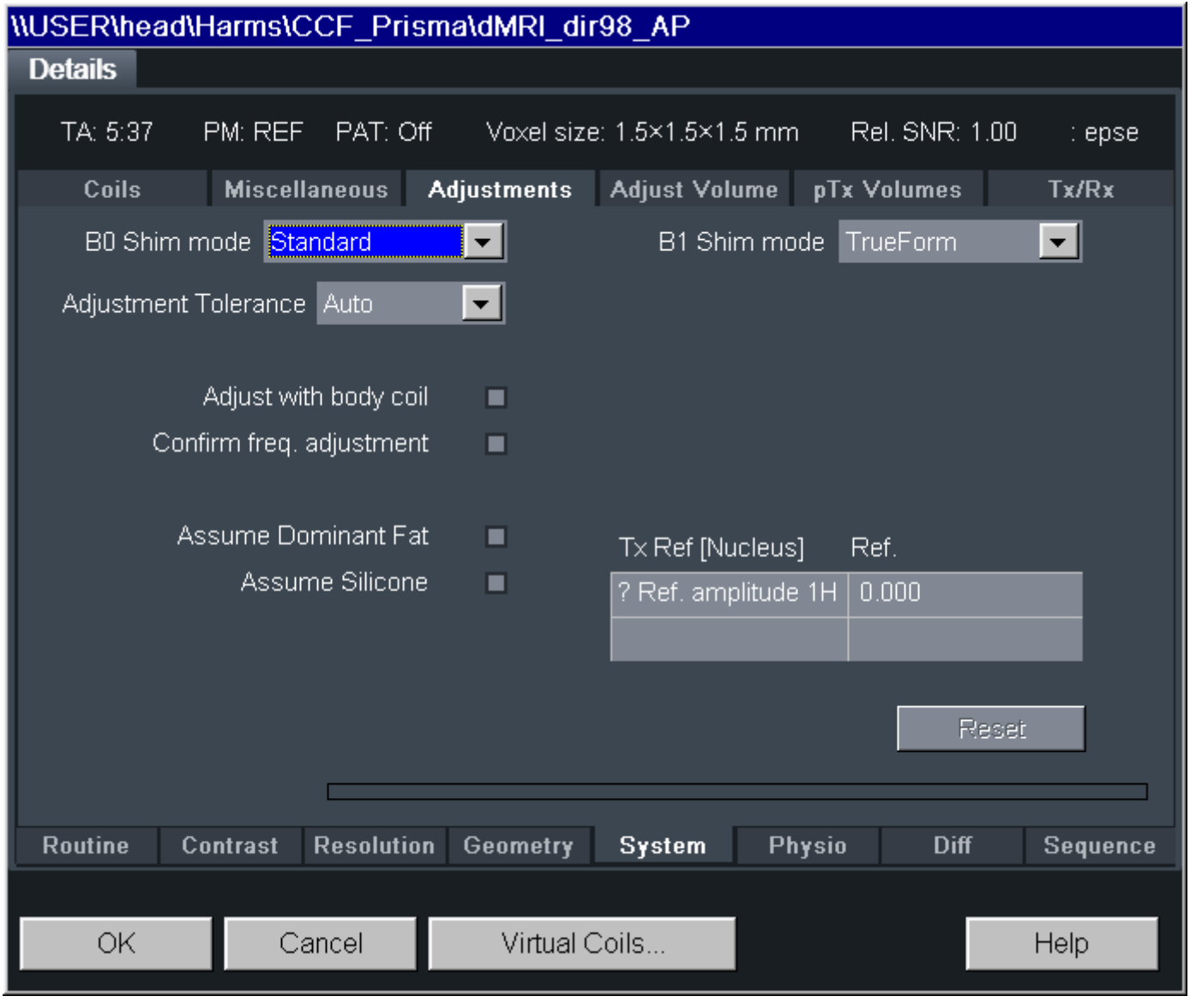

\\USER\head\Harms\CCF_Prisma\dMRI_dir98_AP
Details
TA: 5:37
PM: REF
PAT: Off
Voxel size: 1.5×1.5×1.5 mm
Rel. SNR: 1.00
: epse
Common
Saturation
Navigator
Slice group
1
Slices
92
Dist. factor
0
%
Position
L0.0 P3.0 H6.0
Orientation
T > C-20.0
Phase enc. dir.
A >> P
Phase oversampling
0
%
FoV read
210
mm
FoV phase
100.0
%
Slice thickness
1.50
mm
TR
3230
ms
Multi-slice mode
Interleaved
Series
Interleaved
Multi-band accel. factor
4
Slices
92
8
92
128
Routine
Contrast
Resolution
Geometry
System
Physio
Diff
Sequence
OK
Cancel
Virtual Coils...
Help

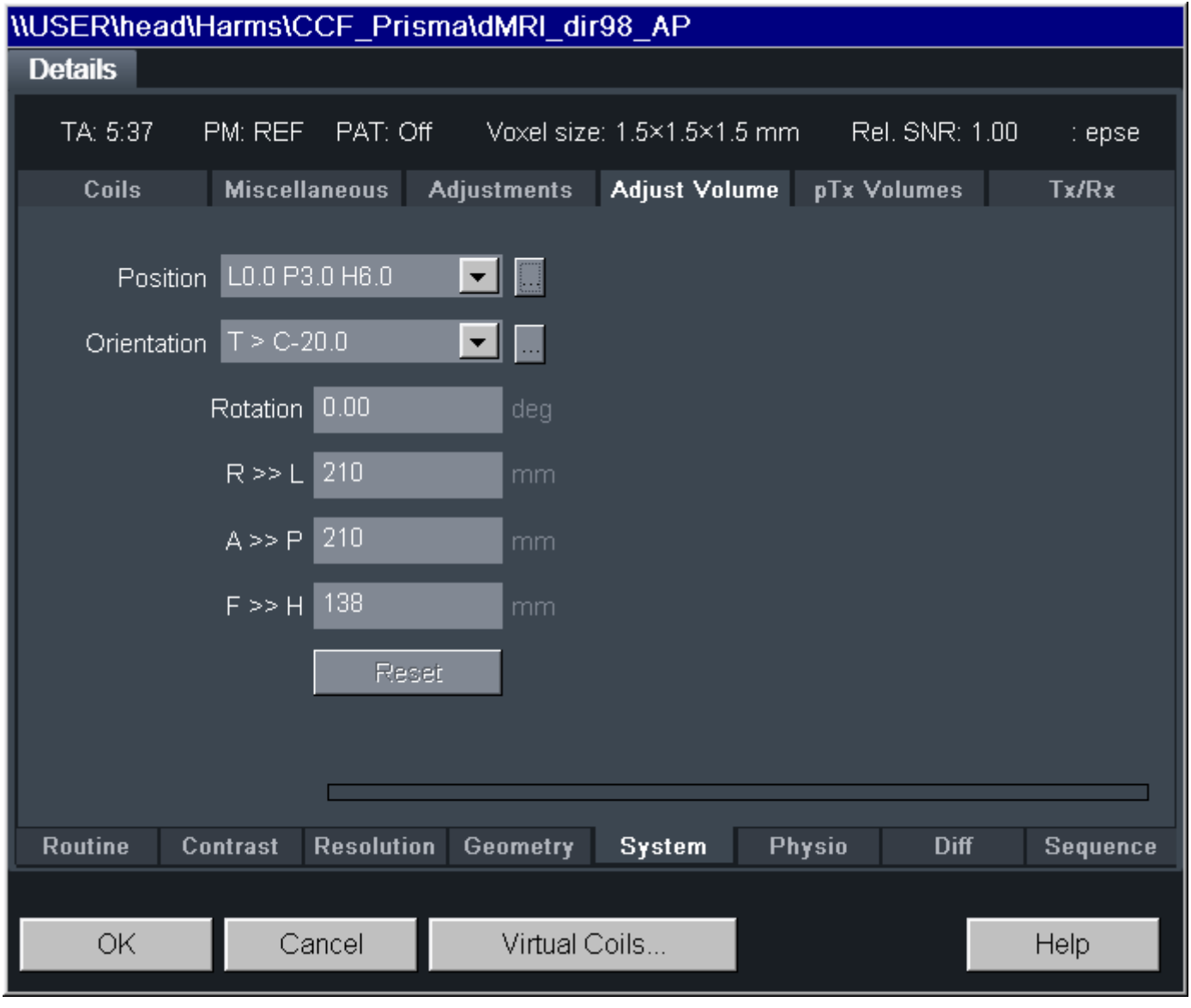

\\USER\head\Harms\CCF_Prisma\dMRI_dir98_AP
Details
TA: 5:37
PM: REF
PAT: Off
Voxel size: 1.5×1.5×1.5 mm
Rel. SNR: 1.00
: epse
Common
Saturation
Navigator
Fat suppr.
None
Grad. rev. fat suppr.
Enabled
Sat. region
Special sat.
None
Routine
Contrast
Resolution
Geometry
System
Physio
Diff
Sequence
OK
Cancel
Virtual Coils...
Help

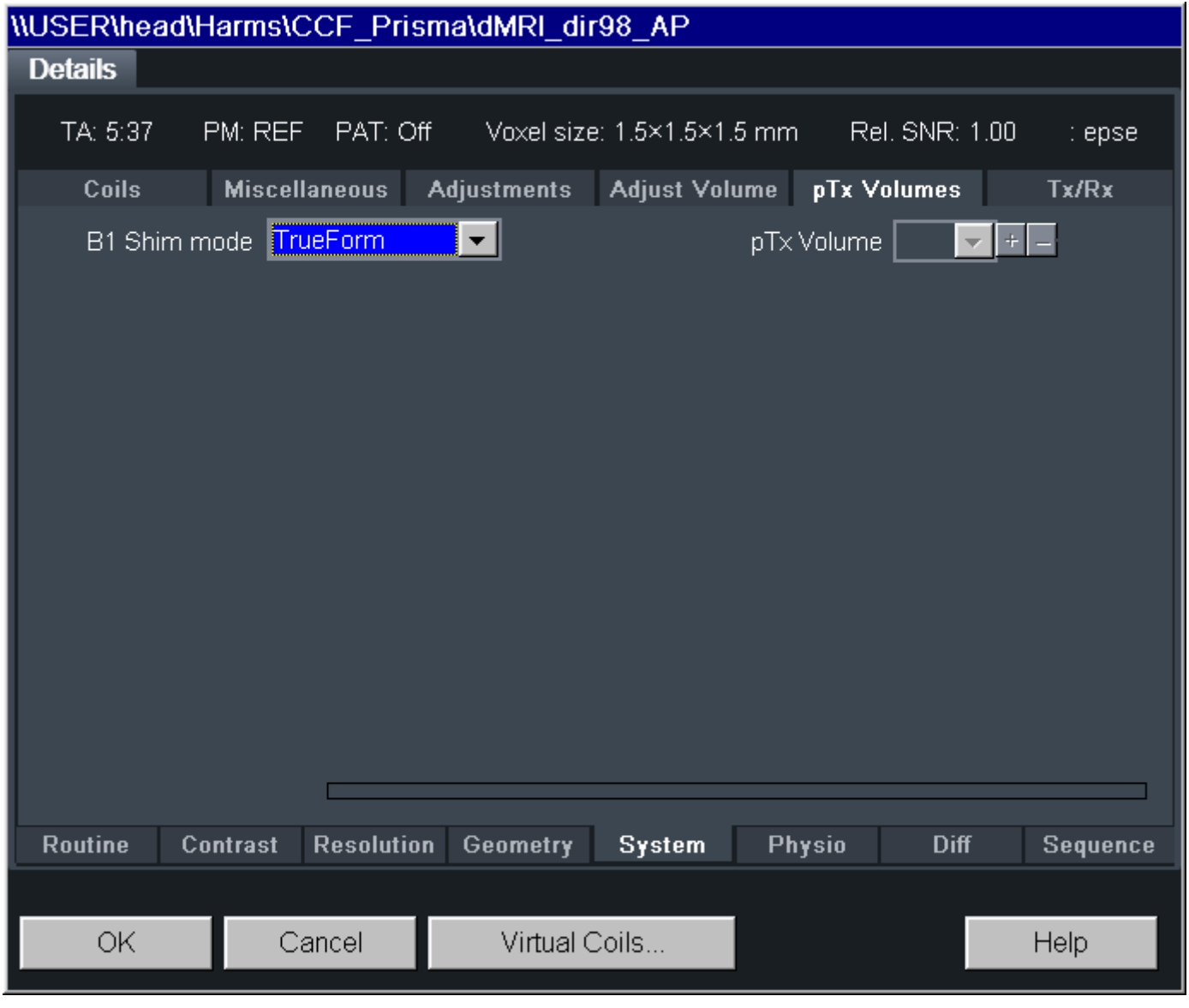

\\USER\head\Harms\CCF_Prisma\dMRI_dir98_AP
Details
TA: 5:37
PM: REF
PAT: Off
Voxel size: 1.5×1.5×1.5 mm
Rel. SNR: 1.00
: epse
Common
Saturation
Navigator
Navigator
Routine
Contrast
Resolution
Geometry
System
Physio
Diff
Sequence
OK
Cancel
Virtual Coils...
Help

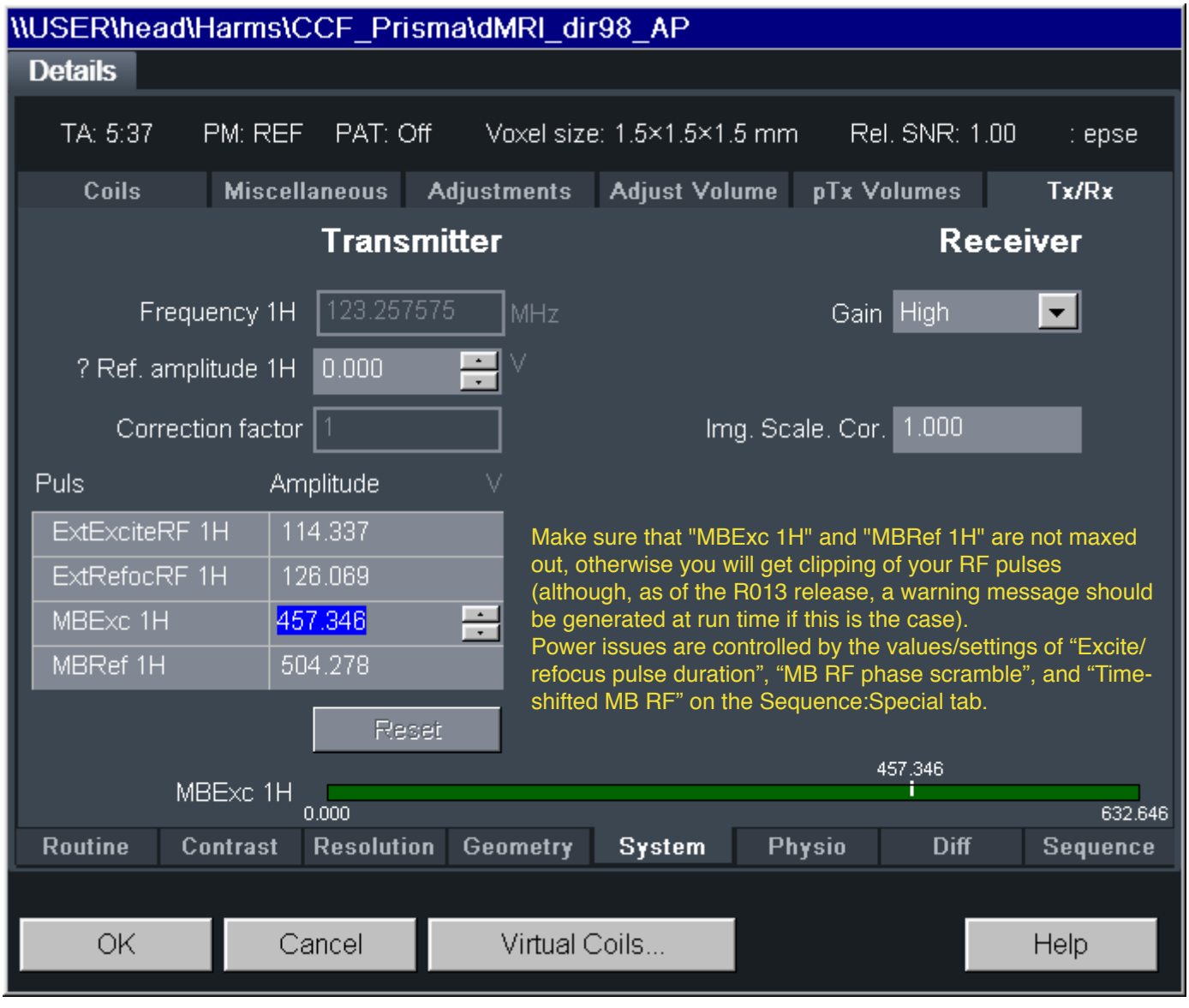

\\USER\head\Harms\CCF_Prisma\dMRI_dir98_AP
Details
TA: 5:37
PM: REF
PAT: Off
Voxel size: 1.5×1.5×1.5 mm
Rel. SNR: 1.00
: epse
Coils
Miscellaneous
Adjustments
Adjust Volume
pTx Volumes
Tx/Rx
HEA
HEP
Body
Routine
Contrast
Resolution
Geometry
System
Physio
Diff
Sequence
OK
Cancel
Virtual Coils...
Help

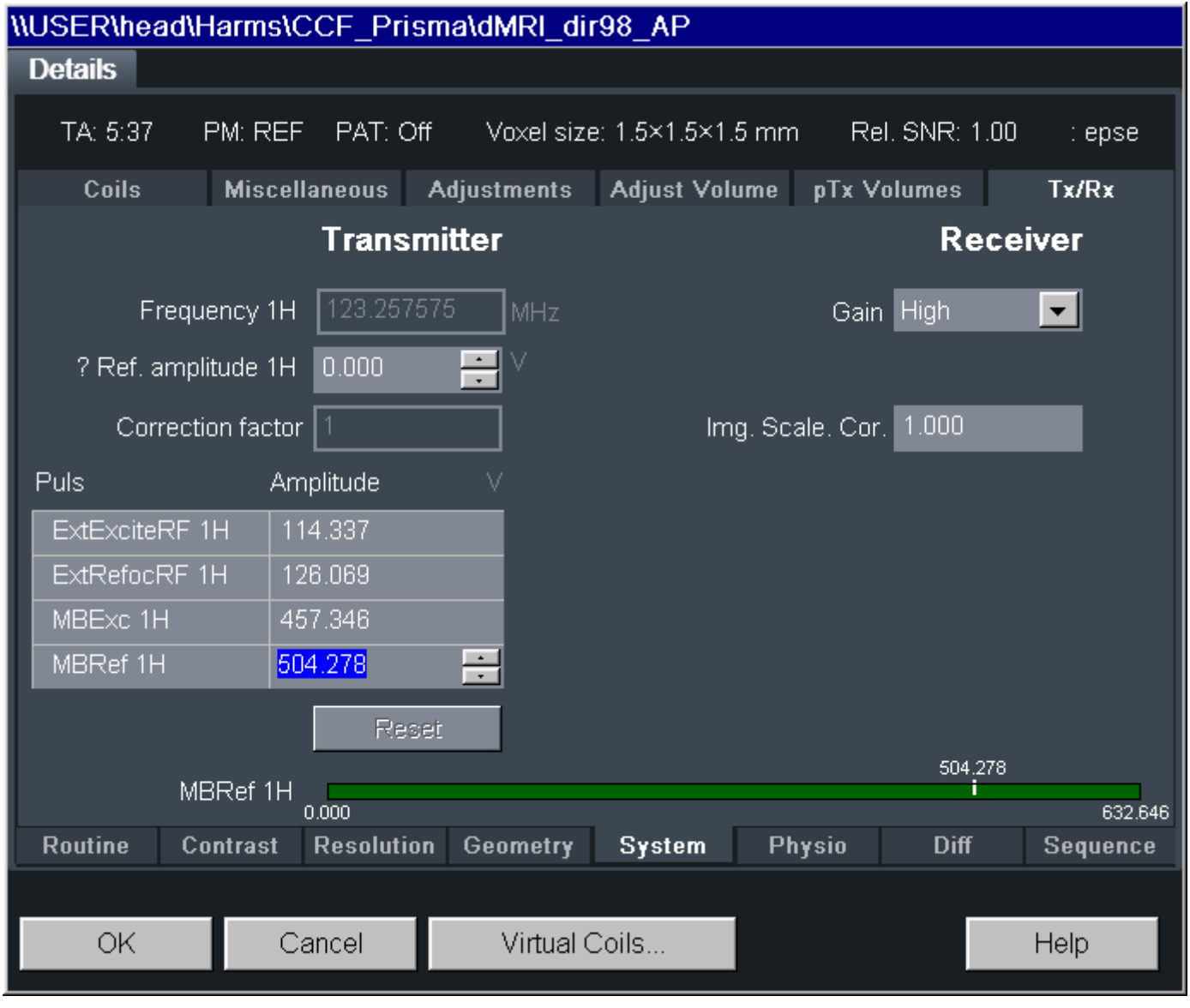

\\USER\head\Harms\CCF_Prisma\dMRI_dir98_AP
Details
TA: 5:37
PM: REF
PAT: Off
Voxel size: 1.5×1.5×1.5 mm
Rel. SNR: 1.00
: epse
Coils
Miscellaneous
Adjustments
Adjust Volume
pTx Volumes
Tx/Rx
Coil Combine Mode
Sum of Squares
Positioning mode
REF
Table position
H
0
mm
Matrix Optimization
Off
Coil Focus
Flat
Image Numbering
MSMA
S - C - T
Sagittal
R >> L
Coronal
A >> P
Transversal
F >> H
AutoAlign
Head > Brain
Coil Select Mode
Off - All
Routine
Contrast
Resolution
Geometry
System
Physio
Diff
Sequence
OK
Cancel
Virtual Coils...
Help

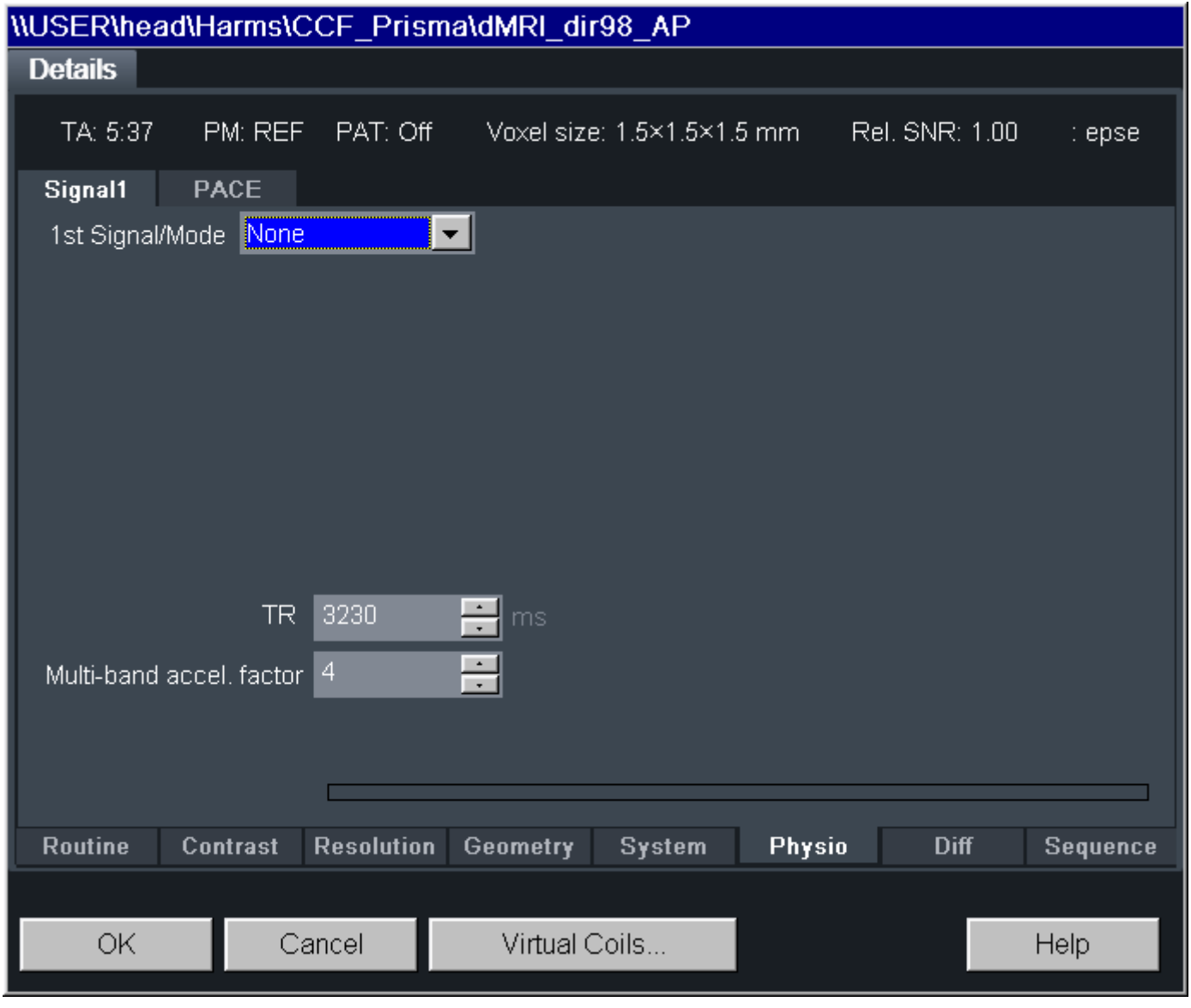

\\USER\head\Harms\CCF_Prisma\dMRI_dir98_AP
Details
TA: 5:37 PM: REF PAT: Off Voxel size: 1.5×1.5×1.5 mm Rel. SNR: 1.00 : epse
Coils
Miscellaneous
Adjustments
Adjust Volume
pTx Volumes
Tx/Rx
B0 Shim mode
Standard
B1 Shim mode
TrueForm
Adjustment Tolerance
Auto
Adjust with body coil
Confirm freq. adjustment
Assume Dominant Fat
Assume Silicone
Tx Ref [Nucleus]
Ref.
? Ref. amplitude 1H
0.000
Reset
Routine
Contrast
Resolution
Geometry
System
Physio
Diff
Sequence
OK
Cancel
Virtual Coils...
Help

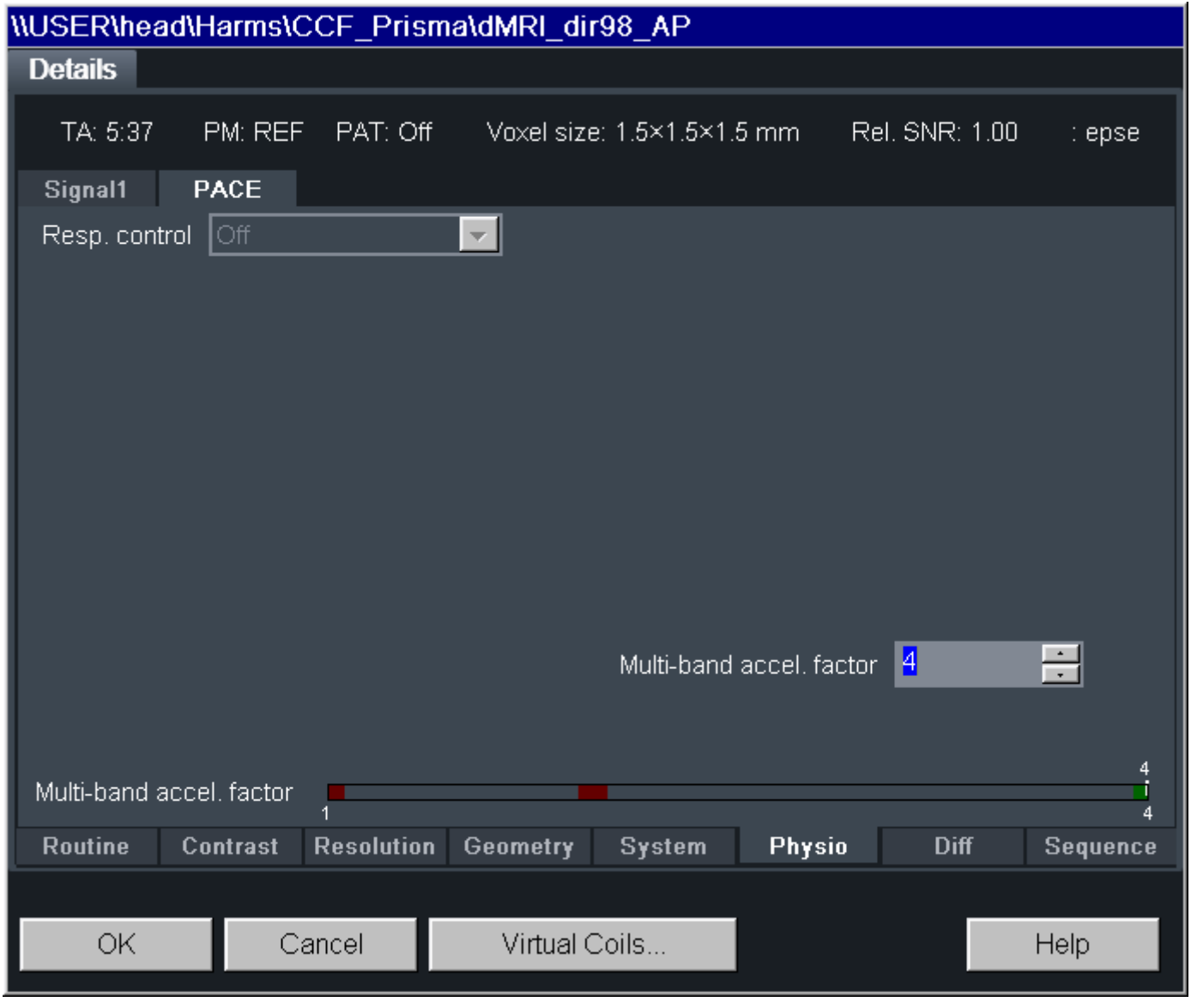

\\USER\head\Harms\CCF_Prisma\dMRI_dir98_AP
Details
TA: 5:37
PM: REF
PAT: Off
Voxel size: 1.5×1.5×1.5 mm
Rel. SNR: 1.00
: epse
Coils
Miscellaneous
Adjustments
Adjust Volume
pTx Volumes
Tx/Rx
Position
L0.0 P3.0 H6.0
Orientation
T > C-20.0
Rotation
0.00
deg
R >> L
210
mm
A >> P
210
mm
F >> H
138
mm
Reset
Routine
Contrast
Resolution
Geometry
System
Physio
Diff
Sequence
OK
Cancel
Virtual Coils...
Help

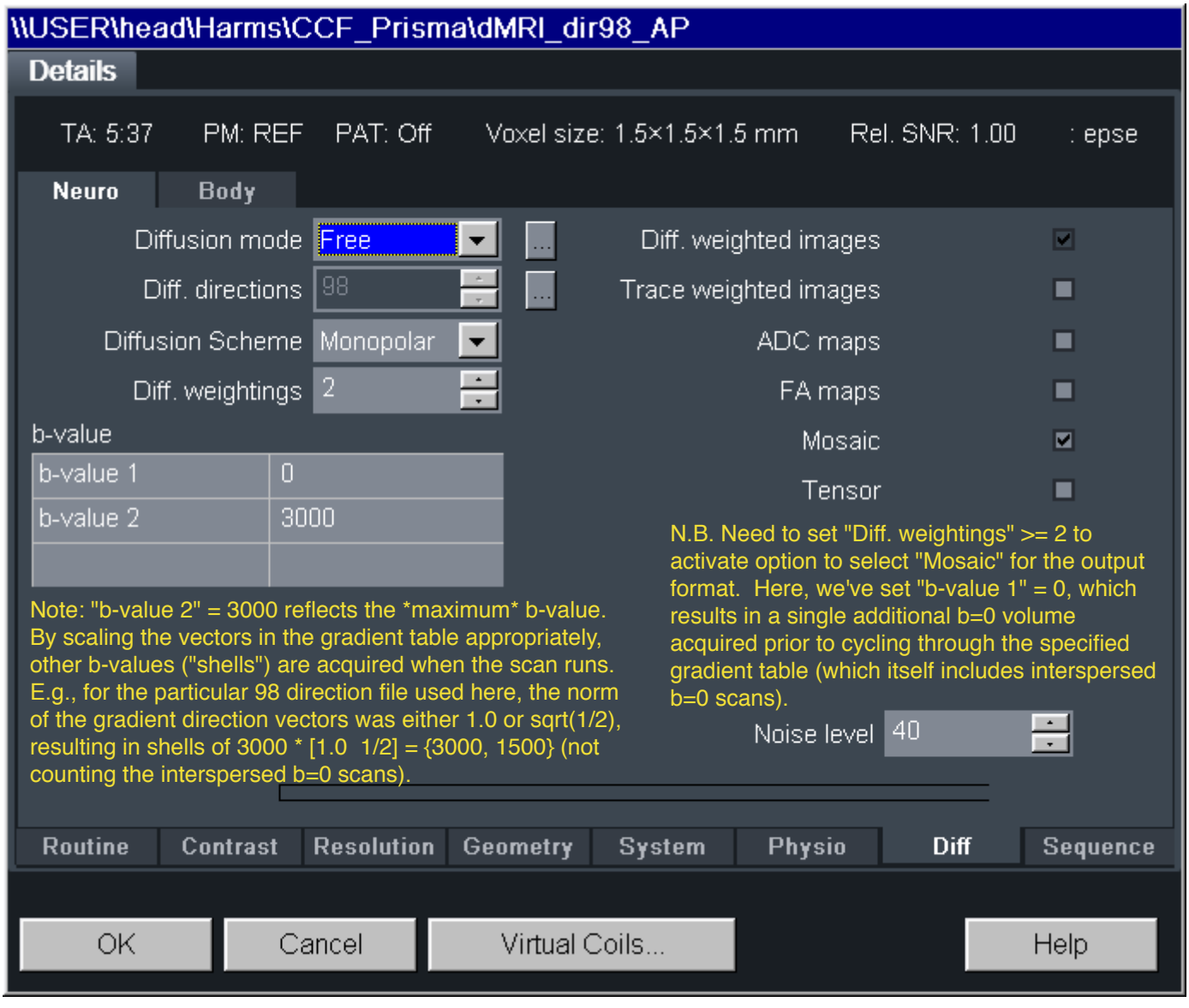

\\USER\head\Harms\CCF_Prisma\dMRI_dir98_AP
Details
TA: 5:37 PM: REF PAT: Off Voxel size: 1.5×1.5×1.5 mm Rel. SNR: 1.00 : epse
Coils
Miscellaneous
Adjustments
Adjust Volume
pTx Volumes
Tx/Rx
B1 Shim mode
TrueForm
pTx Volume
Routine
Contrast
Resolution
Geometry
System
Physio
Diff
Sequence
OK
Cancel
Virtual Coils...
Help

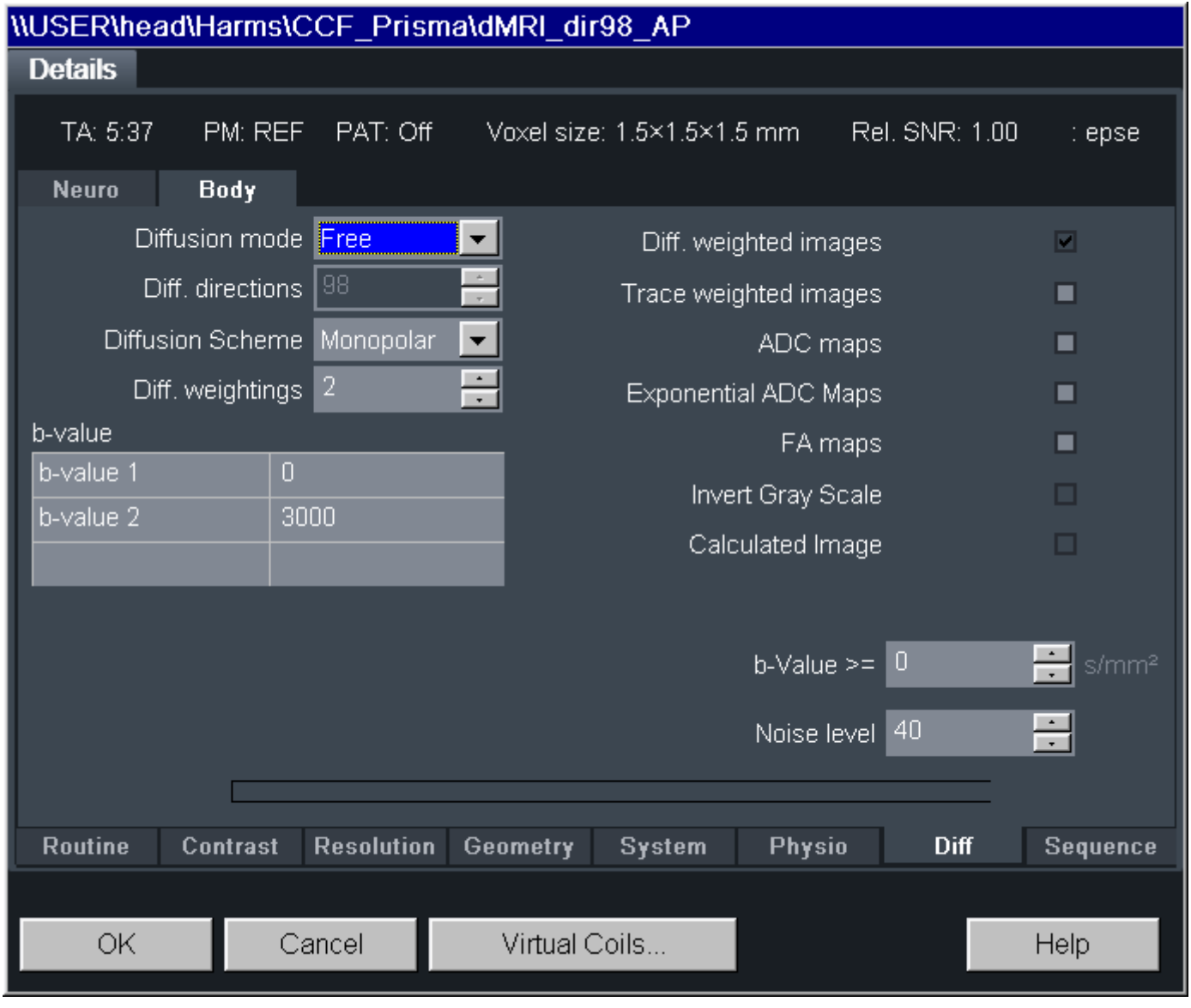

\\USER\head\Harms\CCF_Prisma\dMRI_dir98_AP
Details
TA: 5:37 PM: REF PAT: Off Voxel size: 1.5×1.5×1.5 mm Rel. SNR: 1.00 : epse
Coils
Miscellaneous
Adjustments
Adjust Volume
pTx Volumes
Tx/Rx
Transmitter
Receiver
Frequency 1H
123.257575
MHz
Gain
High
? Ref. amplitude 1H
0.000
V
Correction factor
1
Img. Scale. Cor.
1.000
Puls
Amplitude
V
ExtExciteRF 1H
114.337
ExtRefocRF 1H
126.069
MBExc 1H
457.346
MBRef 1H
504.278
Reset
Make sure that "MBExc 1H" and "MBRef 1H" are not maxed out, otherwise you will get clipping of your RF pulses (although, as of the R013 release, a warning message should be generated at run time if this is the case).
Power issues are controlled by the values/settings of “Excite/ refocus pulse duration”, “MB RF phase scramble”, and “Time-shifted MB RF” on the Sequence:Special tab.
MBExc 1H
457.346
0.000
632.646
Routine
Contrast
Resolution
Geometry
System
Physio
Diff
Sequence
OK
Cancel
Virtual Coils...
Help

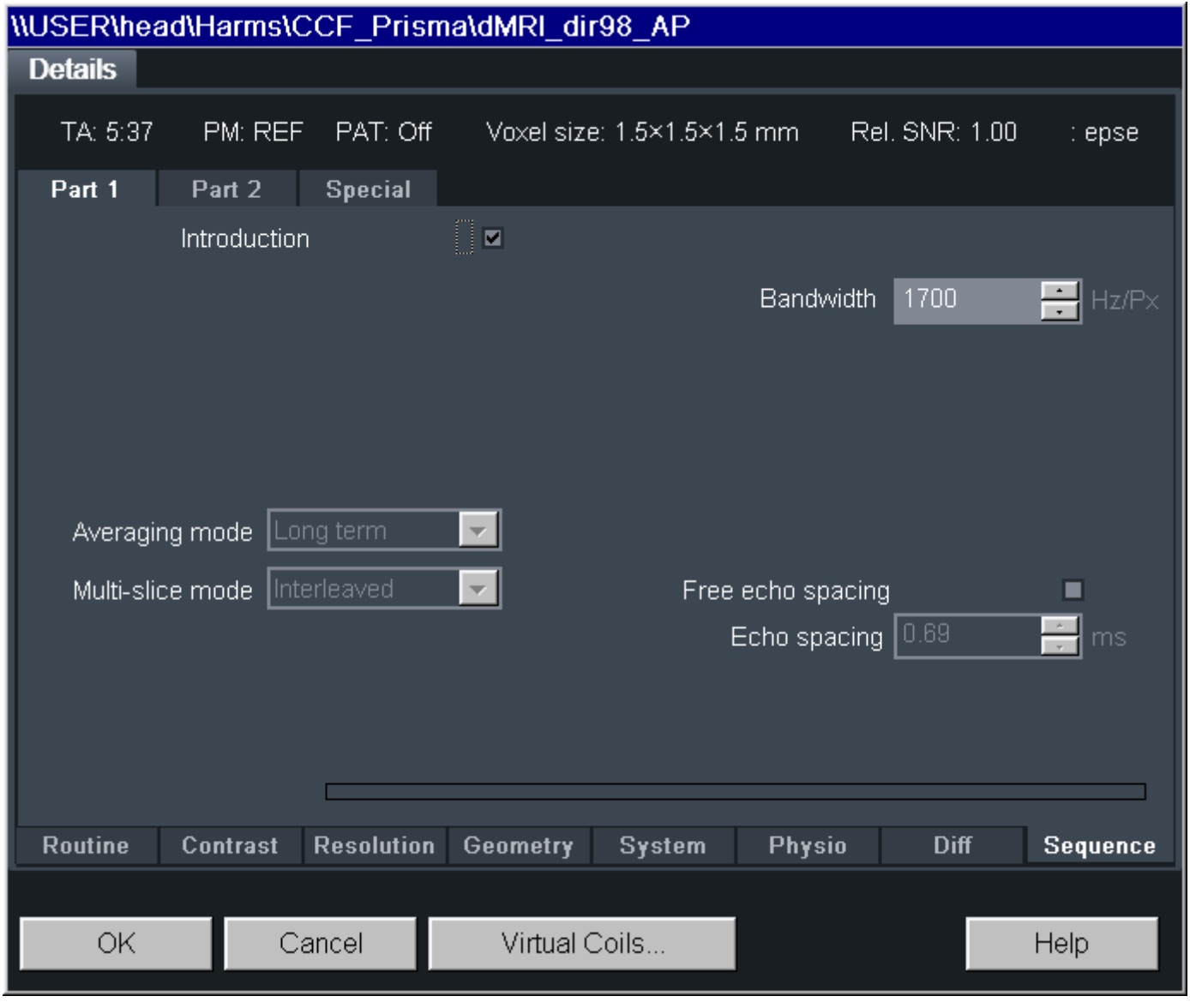

\\USER\head\Harms\CCF_Prisma\dMRI_dir98_AP
Details
TA: 5:37 PM: REF PAT: Off Voxel size: 1.5×1.5×1.5 mm Rel. SNR: 1.00 : epse
Coils
Miscellaneous
Adjustments
Adjust Volume
pTx Volumes
Tx/Rx
Transmitter
Receiver
Frequency 1H
123.257575
MHz
Gain
High
? Ref. amplitude 1H
0.000
V
Correction factor
1
Img. Scale. Cor.
1.000
Puls
Amplitude
V
ExtExciteRF 1H
114.337
ExtRefocRF 1H
126.069
MBExc 1H
457.346
MBRef 1H
504.278
Reset
MBRef 1H
504.278
0.000
632.646
Routine
Contrast
Resolution
Geometry
System
Physio
Diff
Sequence
OK
Cancel
Virtual Coils...
Help

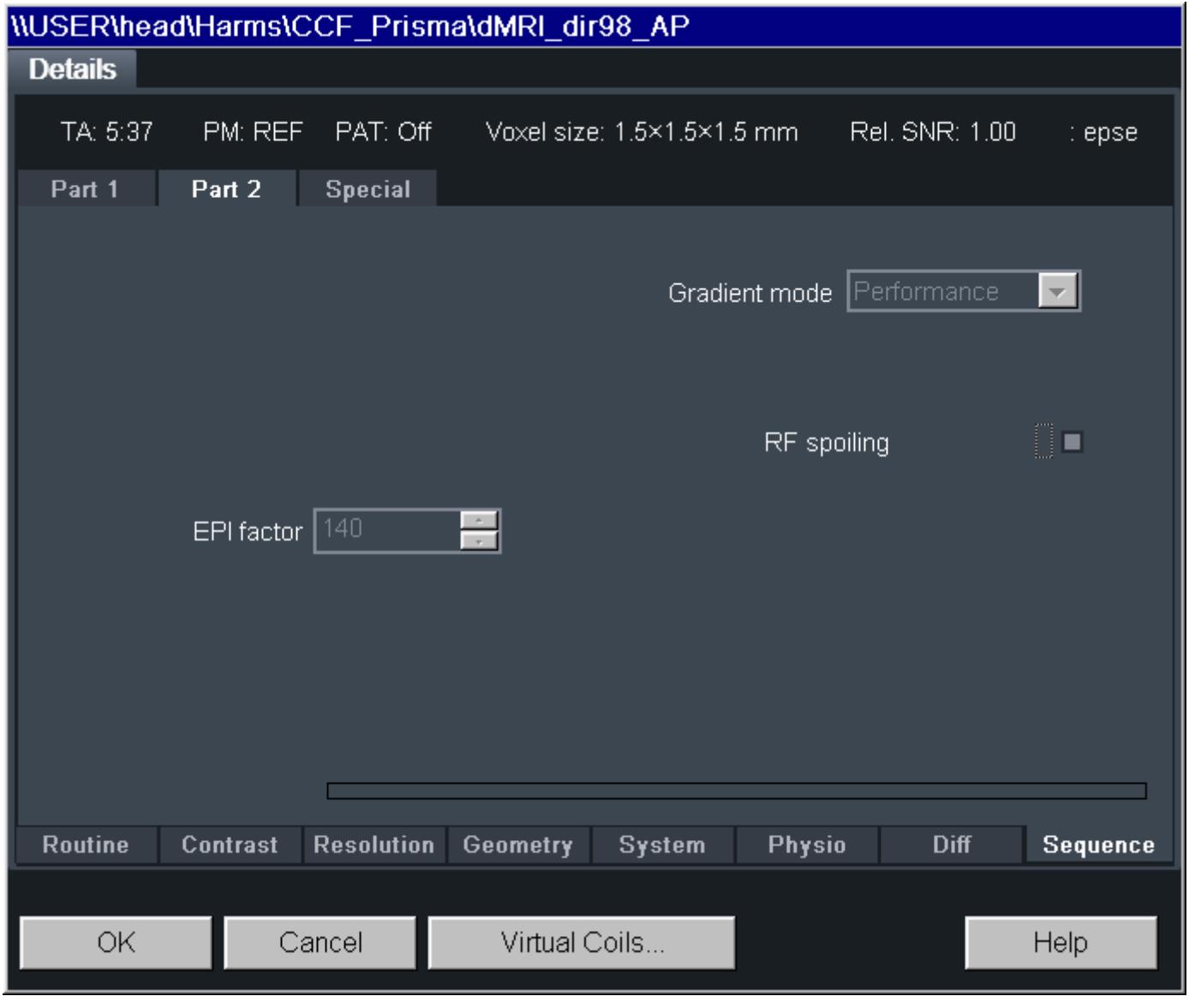

\\USER\head\Harms\CCF_Prisma\dMRI_dir98_AP
Details
TA: 5:37
PM: REF
PAT: Off
Voxel size: 1.5×1.5×1.5 mm
Rel. SNR: 1.00
: epse
Signal1
PACE
1st Signal/Mode
None
TR
3230
ms
Multi-band accel. factor
4
Routine
Contrast
Resolution
Geometry
System
Physio
Diff
Sequence
OK
Cancel
Virtual Coils...
Help


\\USER\head\Harms\CCF_Prisma\dMRI_dir98_AP
Details
TA: 5:37
PM: REF
PAT: Off
Voxel size: 1.5×1.5×1.5 mm
Rel. SNR: 1.00
: epse
Signal1
PACE
Resp. control
Off
Multi-band accel. factor
4
Multi-band accel. factor
4
1
4
Routine
Contrast
Resolution
Geometry
System
Physio
Diff
Sequence
OK
Cancel
Virtual Coils...
Help


\\USER\head\Harms\CCF_Prisma\dMRI_dir98_AP
Details
TA: 5:37 PM: REF PAT: Off Voxel size: 1.5×1.5×1.5 mm Rel. SNR: 1.00 : epse
Neuro
Body
Diffusion mode
Free
Diff. directions
98
Diffusion Scheme
Monopolar
Diff. weightings
2
b-value
b-value 1
0
b-value 2
3000
Note: "b-value 2" = 3000 reflects the *maximum* b-value. By scaling the vectors in the gradient table appropriately, other b-values ("shells") are acquired when the scan runs. E.g., for the particular 98 direction file used here, the norm of the gradient direction vectors was either 1.0 or sqrt(1/2), resulting in shells of 3000 * [1.0 1/2] = {3000, 1500} (not counting the interspersed b=0 scans).
Diff. weighted images
Trace weighted images
ADC maps
FA maps
Mosaic
Tensor
N.B. Need to set "Diff. weightings" >= 2 to activate option to select "Mosaic" for the output format. Here, we've set "b-value 1" = 0, which results in a single additional b=0 volume acquired prior to cycling through the specified gradient table (which itself includes interspersed b=0 scans).
Noise level
40
Routine
Contrast
Resolution
Geometry
System
Physio
Diff
Sequence
OK
Cancel
Virtual Coils...
Help


\\USER\head\Harms\CCF_Prisma\dMRI_dir98_AP
Details
TA: 5:37 PM: REF PAT: Off Voxel size: 1.5×1.5×1.5 mm Rel. SNR: 1.00 : epse
Neuro
Body
Diffusion mode
Free
Diff. directions
98
Diffusion Scheme
Monopolar
Diff. weightings
2
b-value
b-value 1
0
b-value 2
3000
Diff. weighted images
Trace weighted images
ADC maps
Exponential ADC Maps
FA maps
Invert Gray Scale
Calculated Image
b-Value >=
0
s/mm²
Noise level
40
Routine
Contrast
Resolution
Geometry
System
Physio
Diff
Sequence
OK
Cancel
Virtual Coils...
Help


\\USER\head\Harms\CCF_Prisma\dMRI_dir98_AP
Details
TA: 5:37
PM: REF
PAT: Off
Voxel size: 1.5×1.5×1.5 mm
Rel. SNR: 1.00
: epse
Part 1
Part 2
Special
Introduction
Bandwidth
1700
Hz/Px
Averaging mode
Long term
Multi-slice mode
Interleaved
Free echo spacing
Echo spacing
0.69
ms
Routine
Contrast
Resolution
Geometry
System
Physio
Diff
Sequence
OK
Cancel
Virtual Coils...
Help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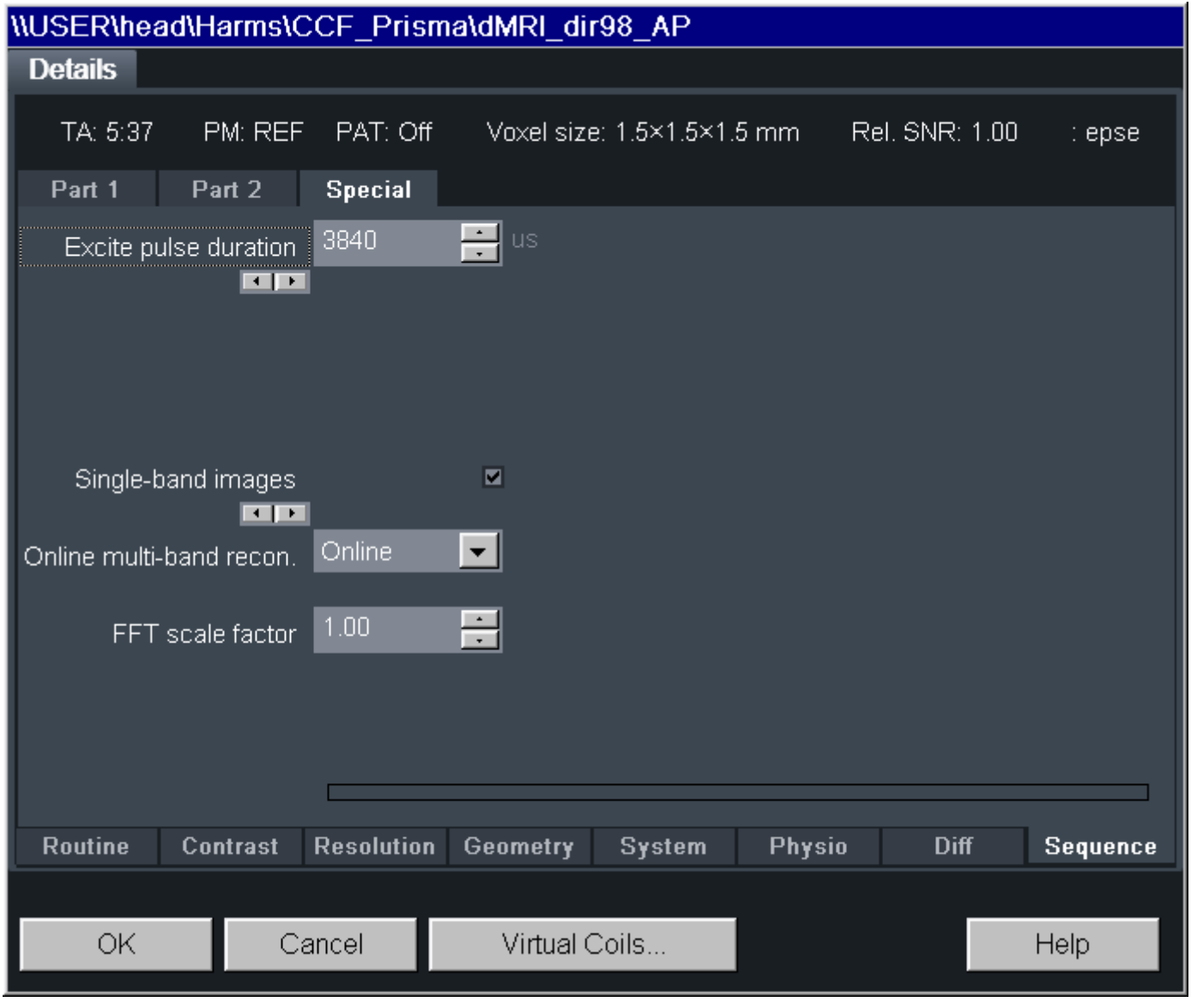
Details
TA: 5:37
PM: REF
PAT: Off
Voxel size: 1.5×1.5×1.5 mm
Rel. SNR: 1.00
: epse
Part 1
Part 2
Special
Gradient mode
Performance
RF spoiling
EPI factor
140
Routine
Contrast
Resolution
Geometry
System
Physio
Diff
Sequence
OK
Cancel
Virtual Coils...
Help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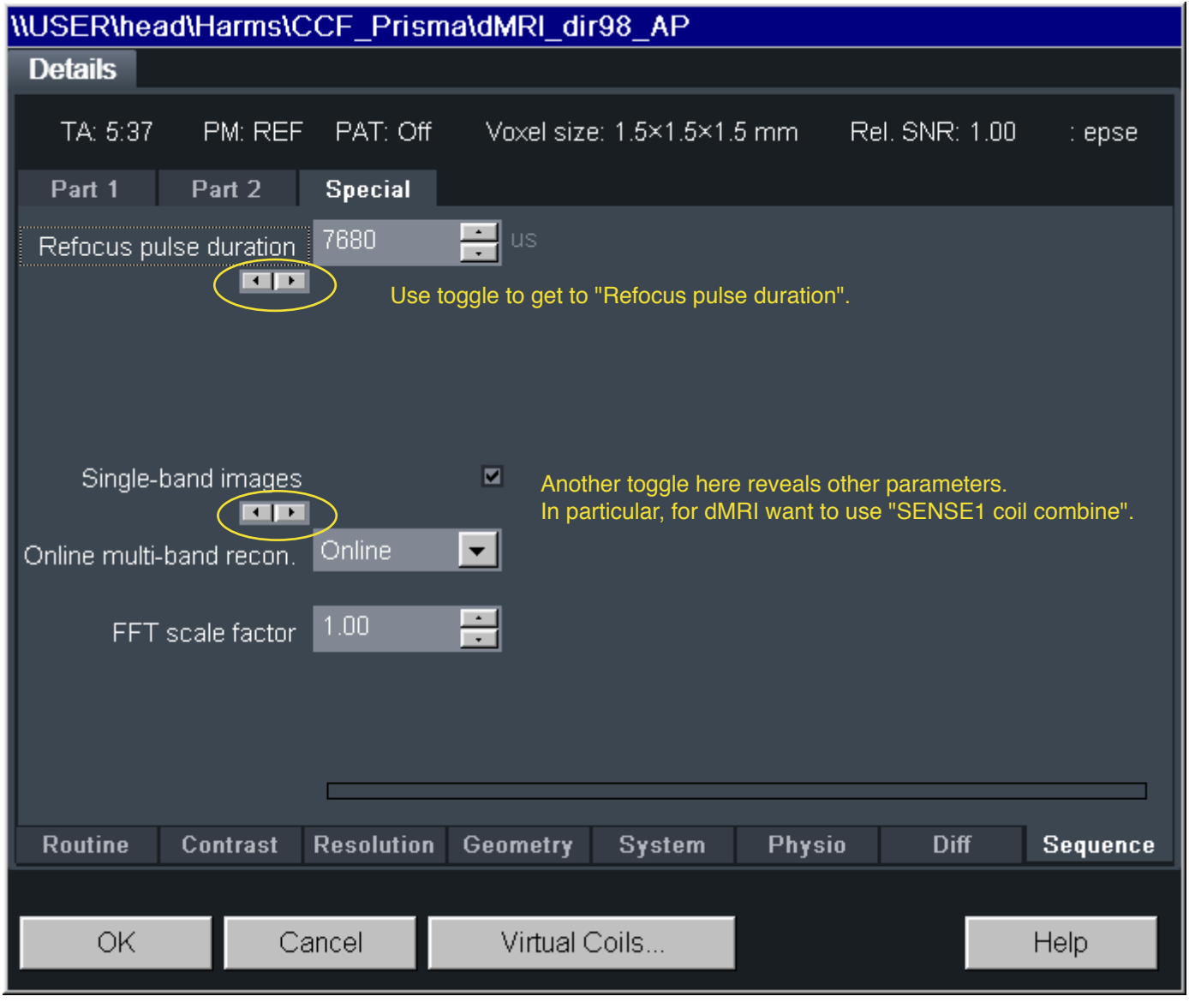
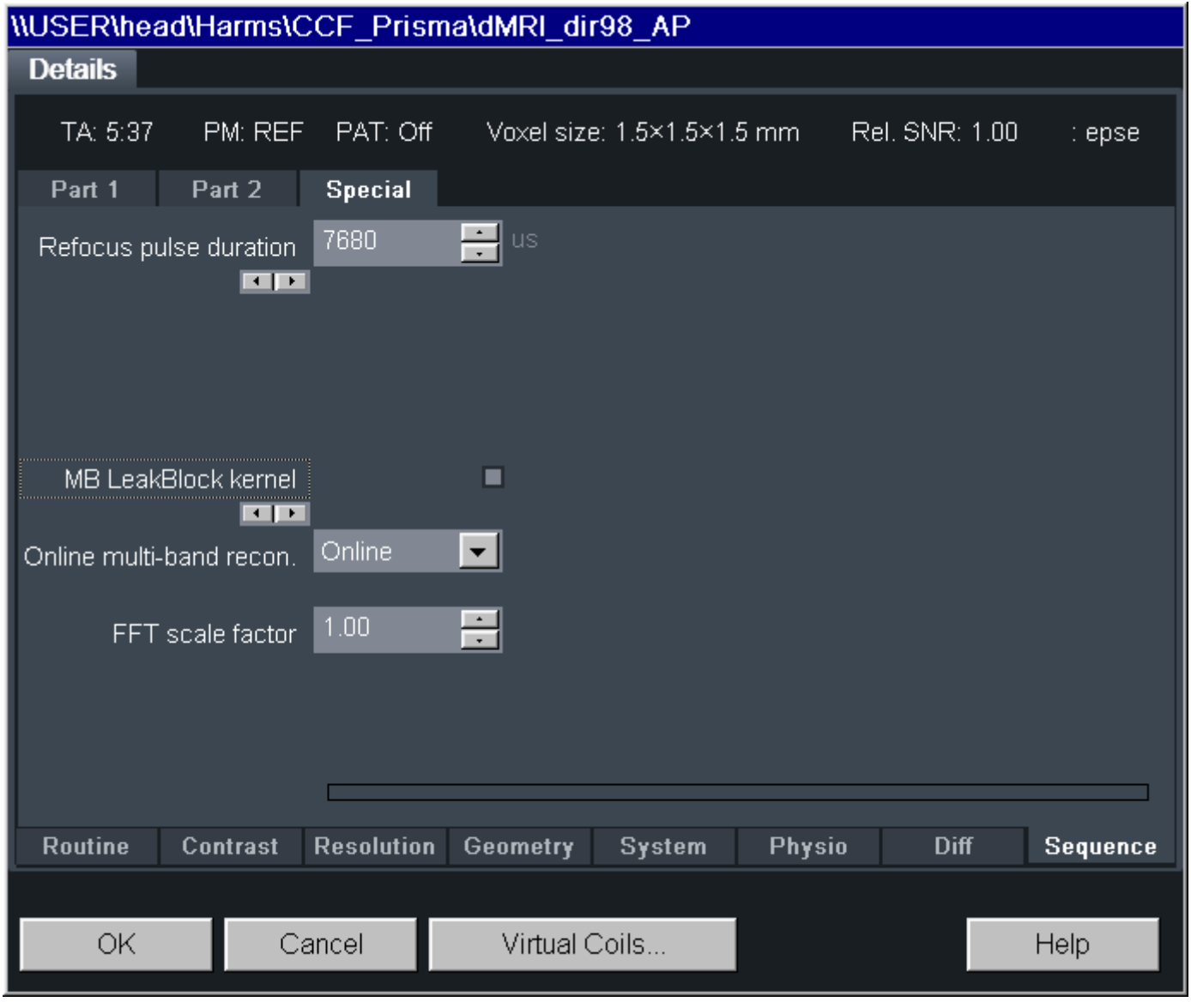
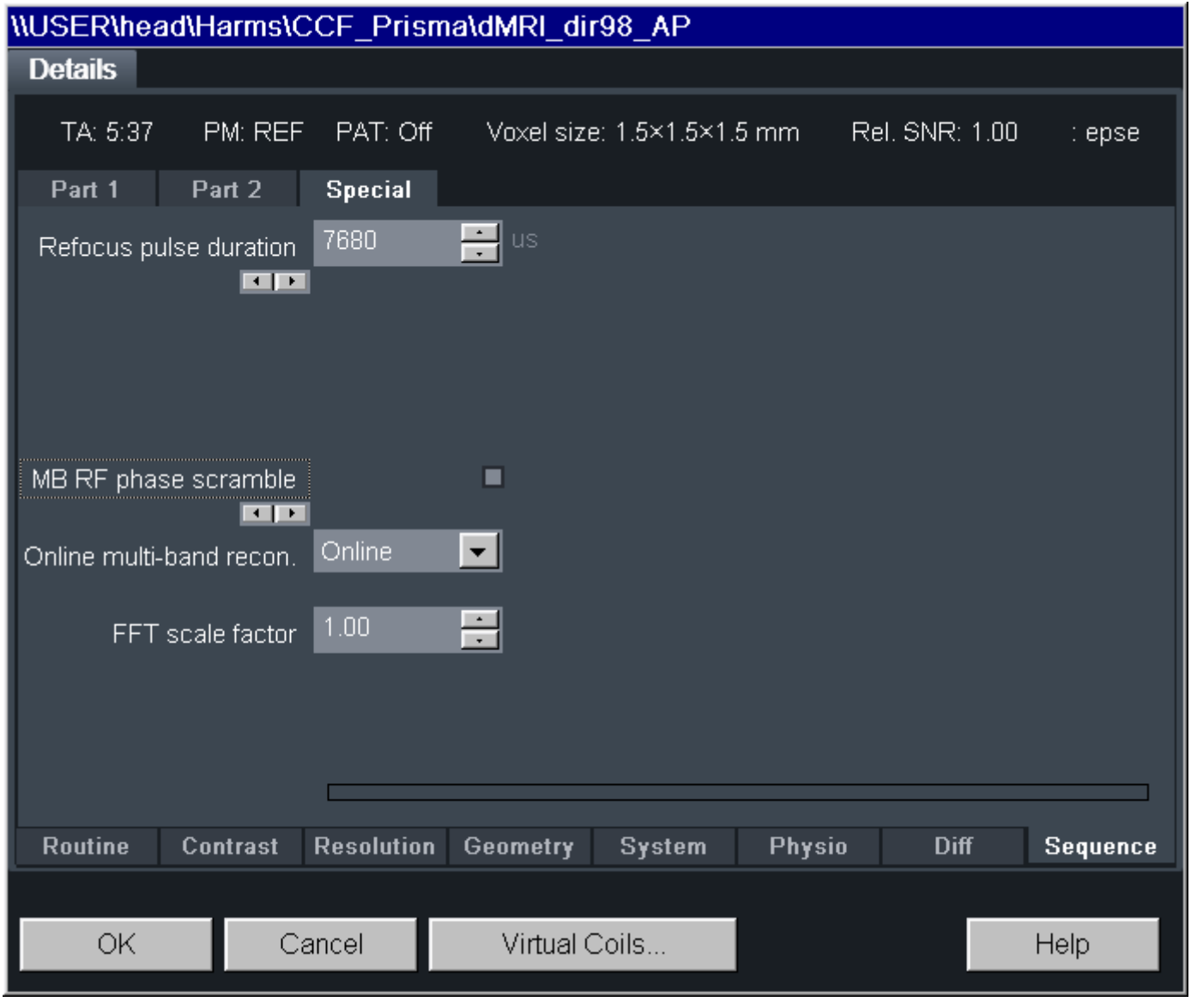
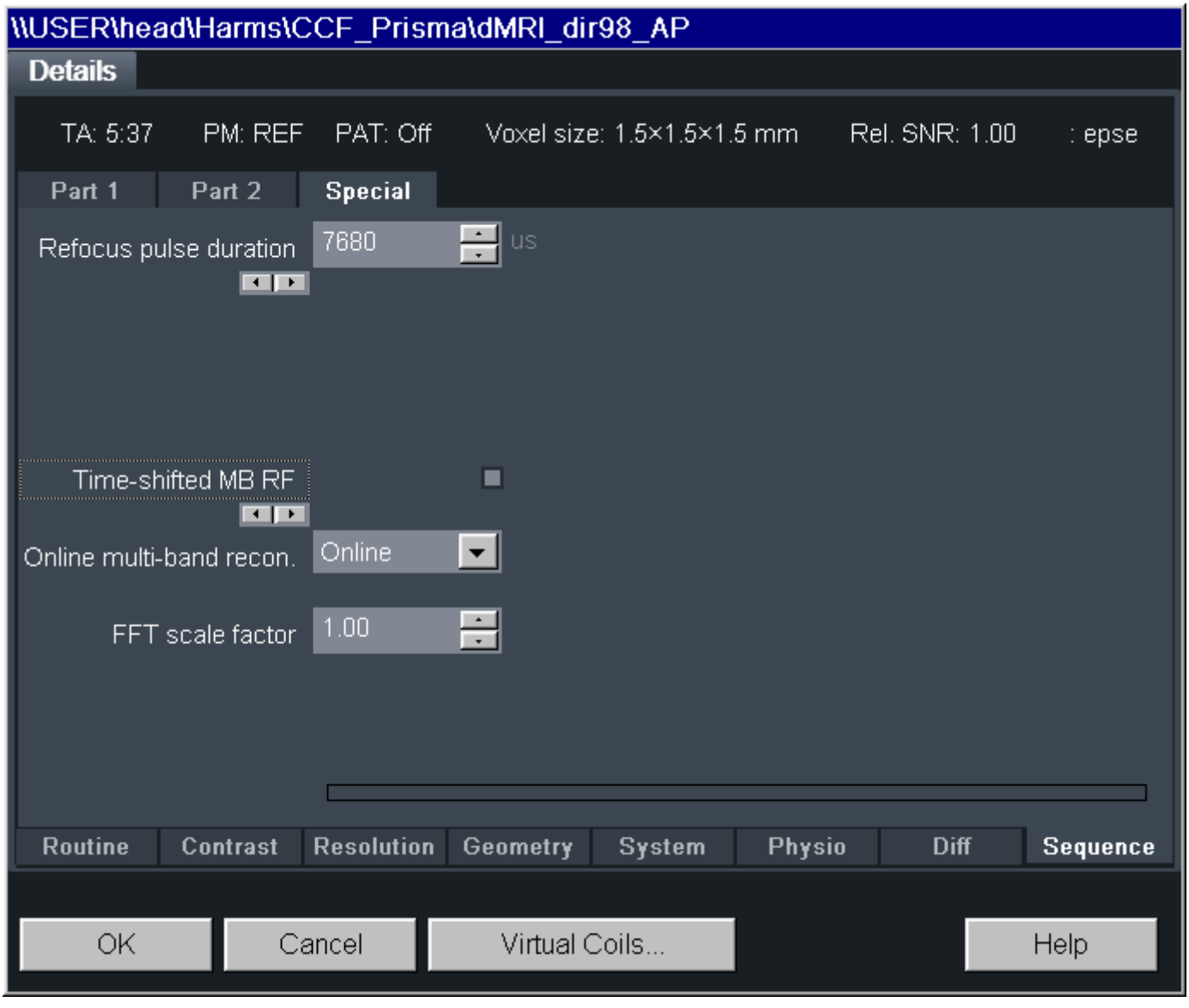
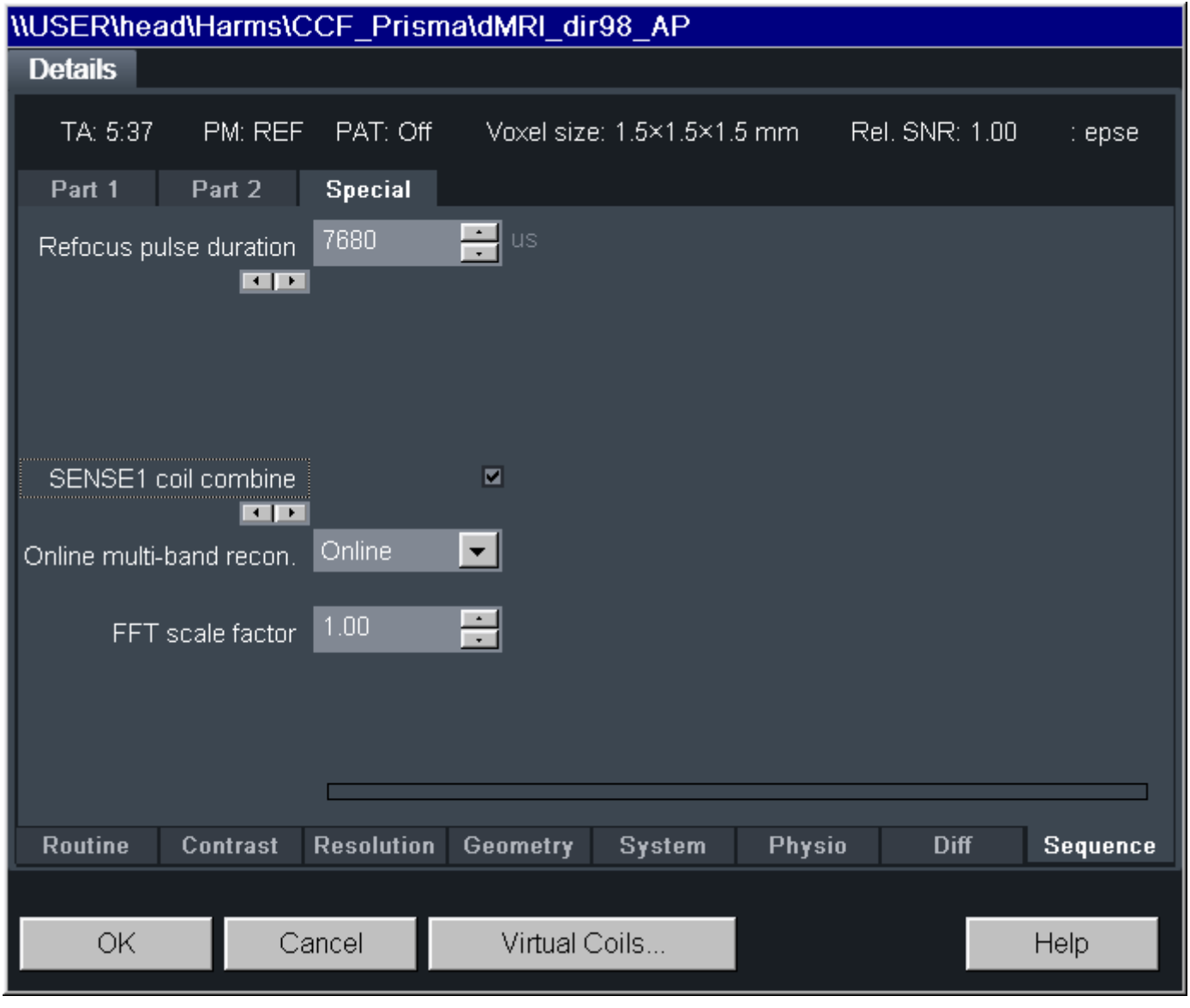
Details
TA: 5:37
PM: REF
PAT: Off
Voxel size: 1.5×1.5×1.5 mm
Rel. SNR: 1.00
: epse
Part 1
Part 2
Special
Excite pulse duration
3840
us
Single-band images
Online multi-band recon.
Online
FFT scale factor
1.00
Routine
Contrast
Resolution
Geometry
System
Physio
Diff
Sequence
OK
Cancel
Virtual Coils...
Help

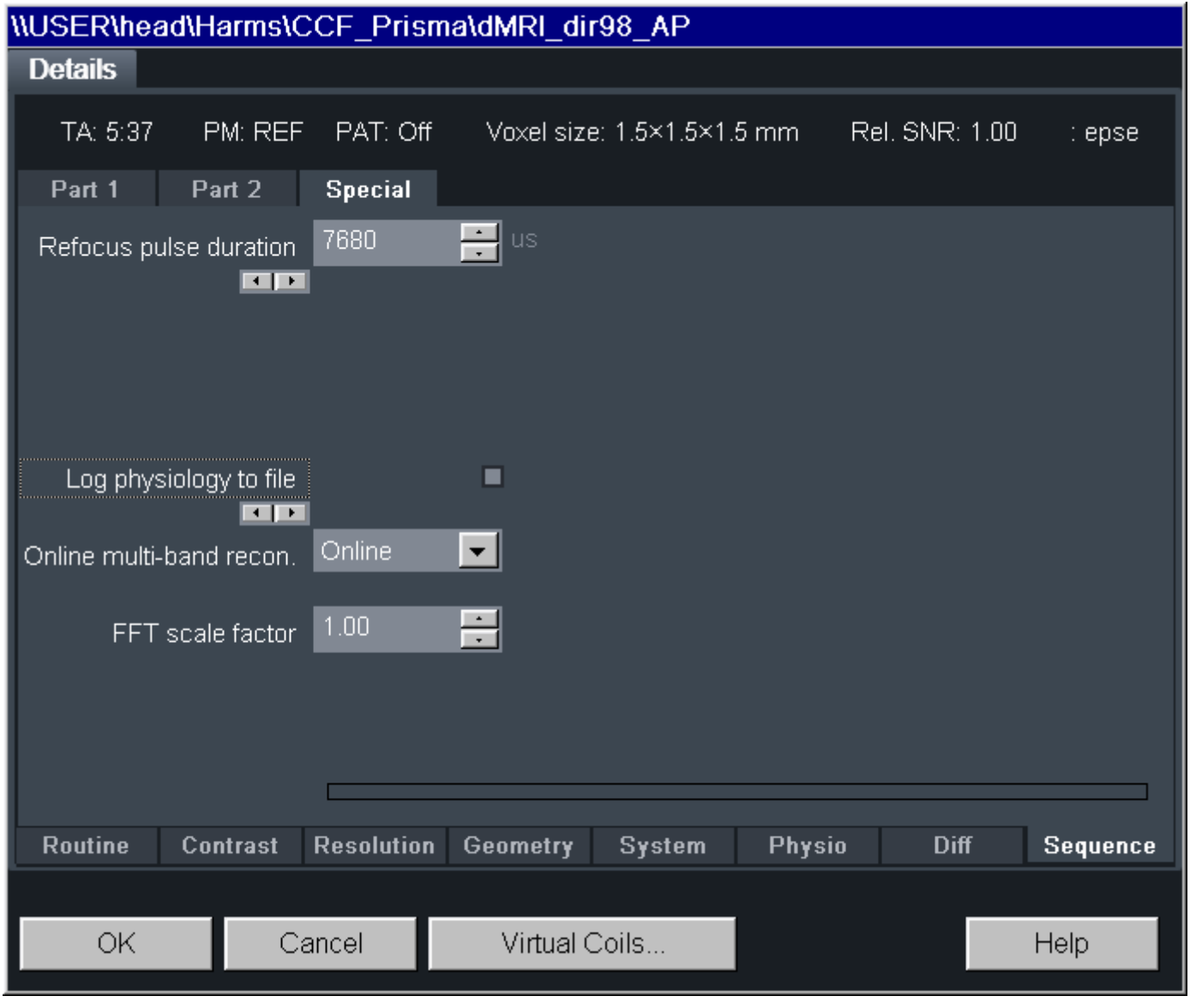

\\USER\head\Harms\CCF_Prisma\dMRI_dir98_AP
Details
TA: 5:37
PM: REF
PAT: Off
Voxel size: 1.5×1.5×1.5 mm
Rel. SNR: 1.00
: epse
Part 1
Part 2
Special
Refocus pulse duration
7680
us
Use toggle to get to "Refocus pulse duration".
Single-band images
Another toggle here reveals other parameters.
In particular, for dMRI want to use "SENSE1 coil combine".
Online multi-band recon.
Online
FFT scale factor
1.00
Routine
Contrast
Resolution
Geometry
System
Physio
Diff
Sequence
OK
Cancel
Virtual Coils...
Help

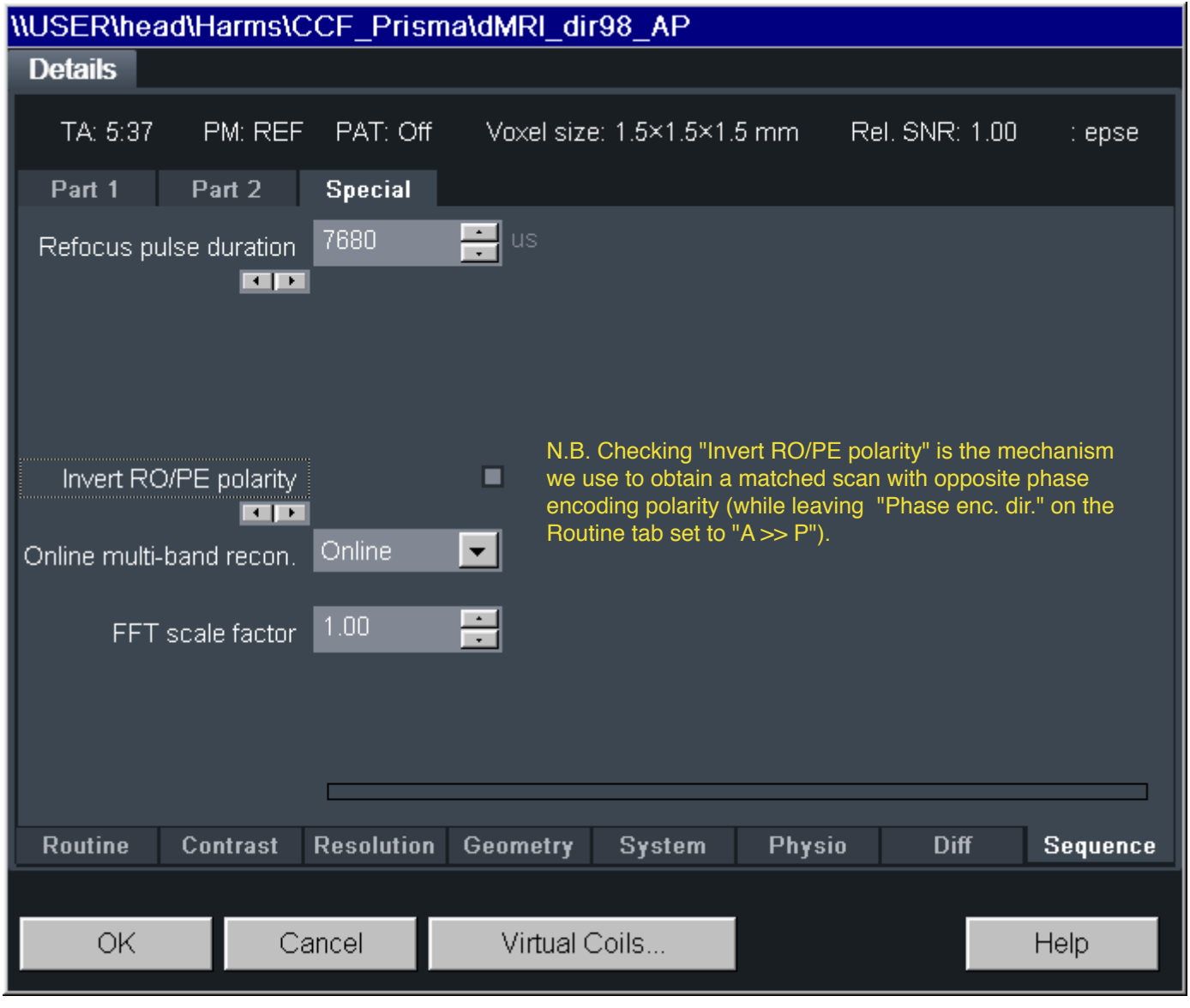

\\USER\head\Harms\CCF_Prisma\dMRI_dir98_AP
Details
TA: 5:37
PM: REF
PAT: Off
Voxel size: 1.5×1.5×1.5 mm
Rel. SNR: 1.00
: epse
Part 1
Part 2
Special
Refocus pulse duration
7680
us
MB LeakBlock kernel
Online multi-band recon.
Online
FFT scale factor
1.00
Routine
Contrast
Resolution
Geometry
System
Physio
Diff
Sequence
OK
Cancel
Virtual Coils...
Help


\\USER\head\Harms\CCF_Prisma\dMRI_dir98_AP
Details
TA: 5:37
PM: REF
PAT: Off
Voxel size: 1.5×1.5×1.5 mm
Rel. SNR: 1.00
: epse
Part 1
Part 2
Special
Refocus pulse duration
7680
us
MB RF phase scramble
Online multi-band recon.
Online
FFT scale factor
1.00
Routine
Contrast
Resolution
Geometry
System
Physio
Diff
Sequence
OK
Cancel
Virtual Coils...
Help


\\USER\head\Harms\CCF_Prisma\dMRI_dir98_AP
Details
TA: 5:37
PM: REF
PAT: Off
Voxel size: 1.5×1.5×1.5 mm
Rel. SNR: 1.00
: epse
Part 1
Part 2
Special
Refocus pulse duration
7680
us
Time-shifted MB RF
Online multi-band recon.
Online
FFT scale factor
1.00
Routine
Contrast
Resolution
Geometry
System
Physio
Diff
Sequence
OK
Cancel
Virtual Coils...
Help


\\USER\head\Harms\CCF_Prisma\dMRI_dir98_AP
Details
TA: 5:37
PM: REF
PAT: Off
Voxel size: 1.5×1.5×1.5 mm
Rel. SNR: 1.00
: epse
Part 1
Part 2
Special
Refocus pulse duration
7680
us
SENSE1 coil combine
Online multi-band recon.
Online
FFT scale factor
1.00
Routine
Contrast
Resolution
Geometry
System
Physio
Diff
Sequence
OK
Cancel
Virtual Coils...
Help


\\USER\head\Harms\CCF_Prisma\dMRI_dir98_AP
Details
TA: 5:37
PM: REF
PAT: Off
Voxel size: 1.5×1.5×1.5 mm
Rel. SNR: 1.00
: epse
Part 1
Part 2
Special
Refocus pulse duration
7680
us
Log physiology to file
Online multi-band recon.
Online
FFT scale factor
1.00
Routine
Contrast
Resolution
Geometry
System
Physio
Diff
Sequence
OK
Cancel
Virtual Coils...
Help


\\USER\head\Harms\CCF_Prisma\dMRI_dir98_AP
Details
TA: 5:37
PM: REF
PAT: Off
Voxel size: 1.5×1.5×1.5 mm
Rel. SNR: 1.00
: epse
Part 1
Part 2
Special
Refocus pulse duration
7680
us
Invert RO/PE polarity
Online multi-band recon.
Online
FFT scale factor
1.00
N.B. Checking "Invert RO/PE polarity" is the mechanism we use to obtain a matched scan with opposite phase encoding polarity (while leaving "Phase enc. dir." on the Routine tab set to "A >> P").
Routine
Contrast
Resolution
Geometry
System
Physio
Diff
Sequence
OK
Cancel
Virtual Coils...
Help