

ISOLDE
CERN



SETTING-UP PROTONS

GPS

2007

October 07

End Line: ISOLDE GPS
 Intensity: 2.7^{E13} ppp (high)
 Focus: Standard Focus
 Plane: GPS Horizontal

Beam profile and emittance measurements with SEM-grids

File Controls Options View File Option Specialist

Pls: NORMGPS BTY.TRA213 2745.0E10 BTYX.SMSG-INST 1100 - Apr 16 13:50:18 2007
BTY.TRA325 2.5E10 BEX.IAQN-INST 10 -
 $\epsilon(2\sigma)$: ***** $\pi \mu\text{m} \Delta p/p : 1.000 \text{ E-3}$

BTY.MSG01

Spline fit	
$4\sigma^2/\beta$	***** $\pi \mu\text{m}$
μ	-0.02 mm
σ	2.67 mm
J	151.23
G	0.00
B	0.00

Gain A
 2 D
 Plane C
 HOR R
 Calib. a
 No n
 g e

Baseline Wire Nbs Step: 1.000 mm 23.7% ADC Range

Single Shot Unfreeze Run Math

Beam profile and emittance measurements with SEM-grids

File Controls Options View File Option Specialist

Pls: NORMGPS BTY.TRA213 2745.0E10 BTYX.SMSG-INST 1100 - Apr 16 13:50:18 2007
BEX.IAQN-INST 10 -
 $\epsilon(2\sigma)$: ***** $\pi \mu\text{m} \Delta p/p : 1.000 \text{ E-3}$

GPS.MSF10

Spline fit	
$4\sigma^2/\beta$	***** $\pi \mu\text{m}$
μ	0.49 mm
σ	7.43 mm
J	138.49
G	0.00
B	0.00

Gain A
 2 D
 Plane C
 HOR R
 Calib. a
 No n
 g e

Baseline Wire Nbs Step: 1.000 mm 6.8% ADC Range

Single Shot Unfreeze Run Math

Programme in pause !!!

End Line: ISOLDE GPS
 Intensity: 2.6^{E13} ppp (high)
 Focus: Standard Focus
 Plane: GPS Vertical

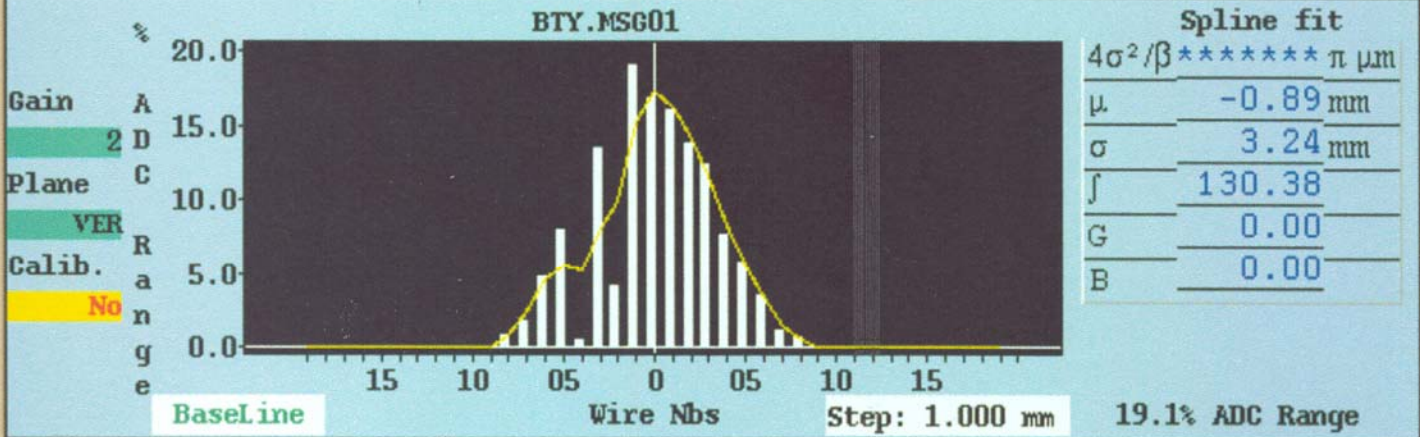
Beam profile and emittance measurements with SEM-grids

File Controls Options View File Option Specialist

Pls: NORMGPS BTY.TRA213 2597.5E10 BTYX.SMSG-INST 1100 - Apr 16 13:53:02 2007

BTY.TRA325 2.5E10 BEX.IAQN-INST 10 -

$\epsilon(2\sigma)$: ***** $\pi \mu\text{m} \Delta p/p : 1.000 \text{ E-3}$



Single Shot Unfreeze Run Math

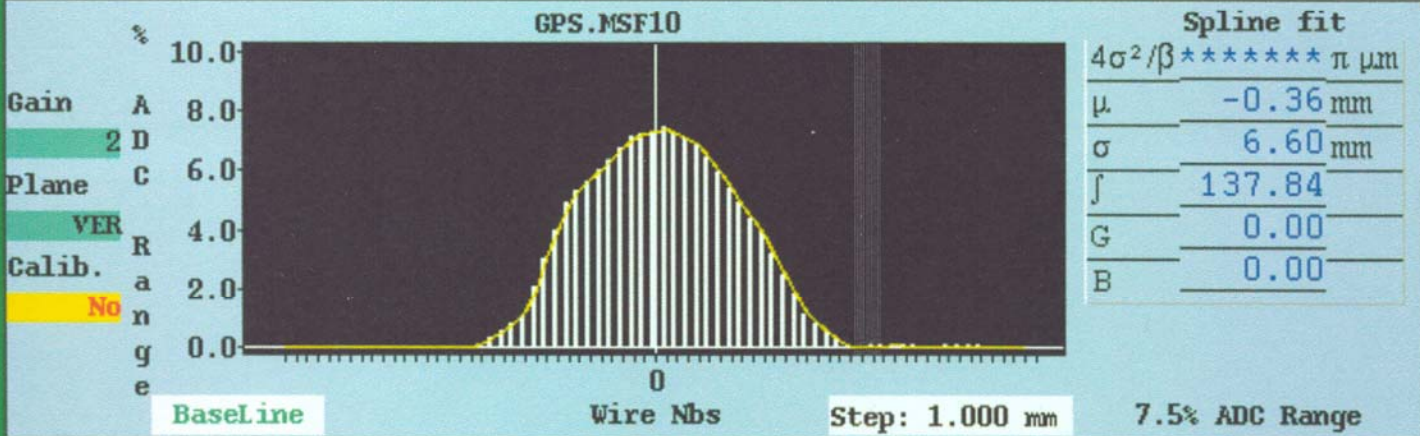
Beam profile and emittance measurements with SEM-grids

File Controls Options View File Option Specialist

Pls: NORMGPS BTY.TRA213 2597.5E10 BTYX.SMSG-INST 1100 - Apr 16 13:53:03 2007

BEX.IAQN-INST 10 -

$\epsilon(2\sigma)$: ***** $\pi \mu\text{m} \Delta p/p : 1.000 \text{ E-3}$



Single Shot Unfreeze Run Math

Programme in pause !!!

End Line: ISOLDE GPS
 Intensity: 2.9^{E13} ppp (high)
 Focus: Waist of beam on target
 Plane: GPS Horizontal

Beam profile and emittance measurements with SEM-grids

File Controls Options View File Option Specialist

Pls: NORMGPS BTY.TRA213 2960.0E10 BTYX.SMSG-INST 1100 - Apr 16 14:38:53 2007

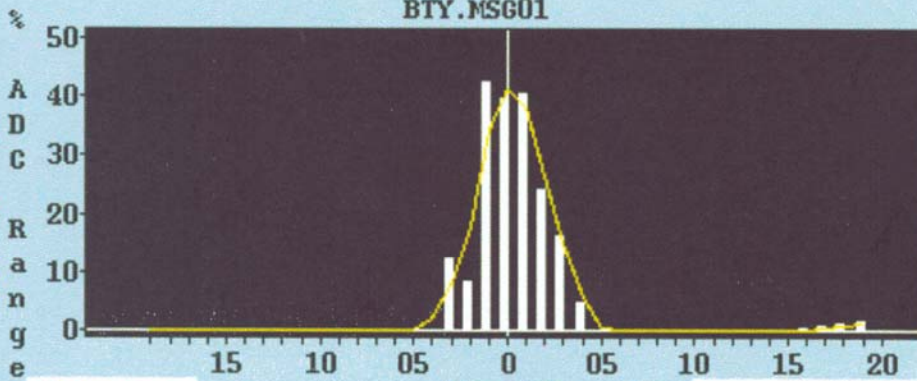
BTY.TRA325 5.0E10 BEX.IAQN-INST 10 -

$\epsilon(2\sigma)$: ***** $\pi \mu\text{m}$ $\Delta p/p$: 1.000 E-3

BTY.MSG01

Spline fit

$4\sigma^2/\beta$	*****	$\pi \mu\text{m}$
μ	-0.43	mm
σ	2.79	mm
\int	193.31	
G	0.00	
B	0.00	



BaseLine

Wire Nbs

Step: 1.000 mm

42.6% ADC Range

Single Shot

Unfreeze

Run Math

Programme in pause !!!

Beam profile and emittance measurements with SEM-grids

File Controls Options View File Option Specialist

Pls: NORMGPS BTY.TRA213 2960.0E10 BTYX.SMSG-INST 1100 - Apr 16 14:38:53 2007

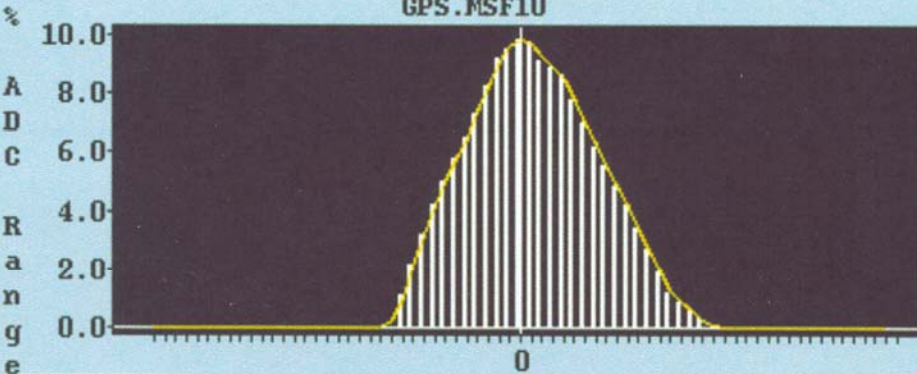
BEX.IAQN-INST 10 -

$\epsilon(2\sigma)$: ***** $\pi \mu\text{m}$ $\Delta p/p$: 1.000 E-3

GPS.MSF10

Spline fit

$4\sigma^2/\beta$	*****	$\pi \mu\text{m}$
μ	0.30	mm
σ	5.94	mm
\int	155.13	
G	0.00	
B	0.00	



BaseLine

Wire Nbs

Step: 1.000 mm

9.9% ADC Range

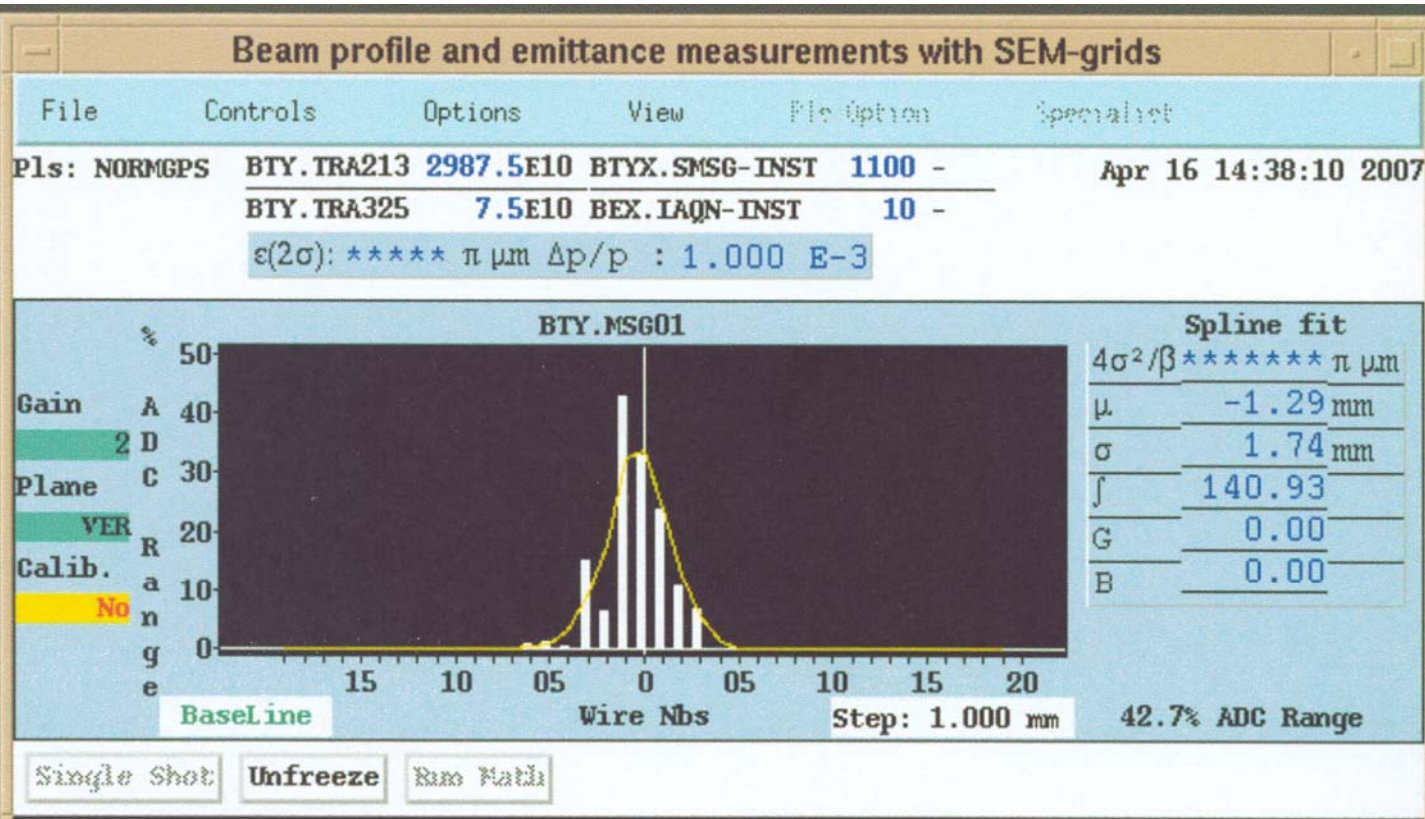
Single Shot

Unfreeze

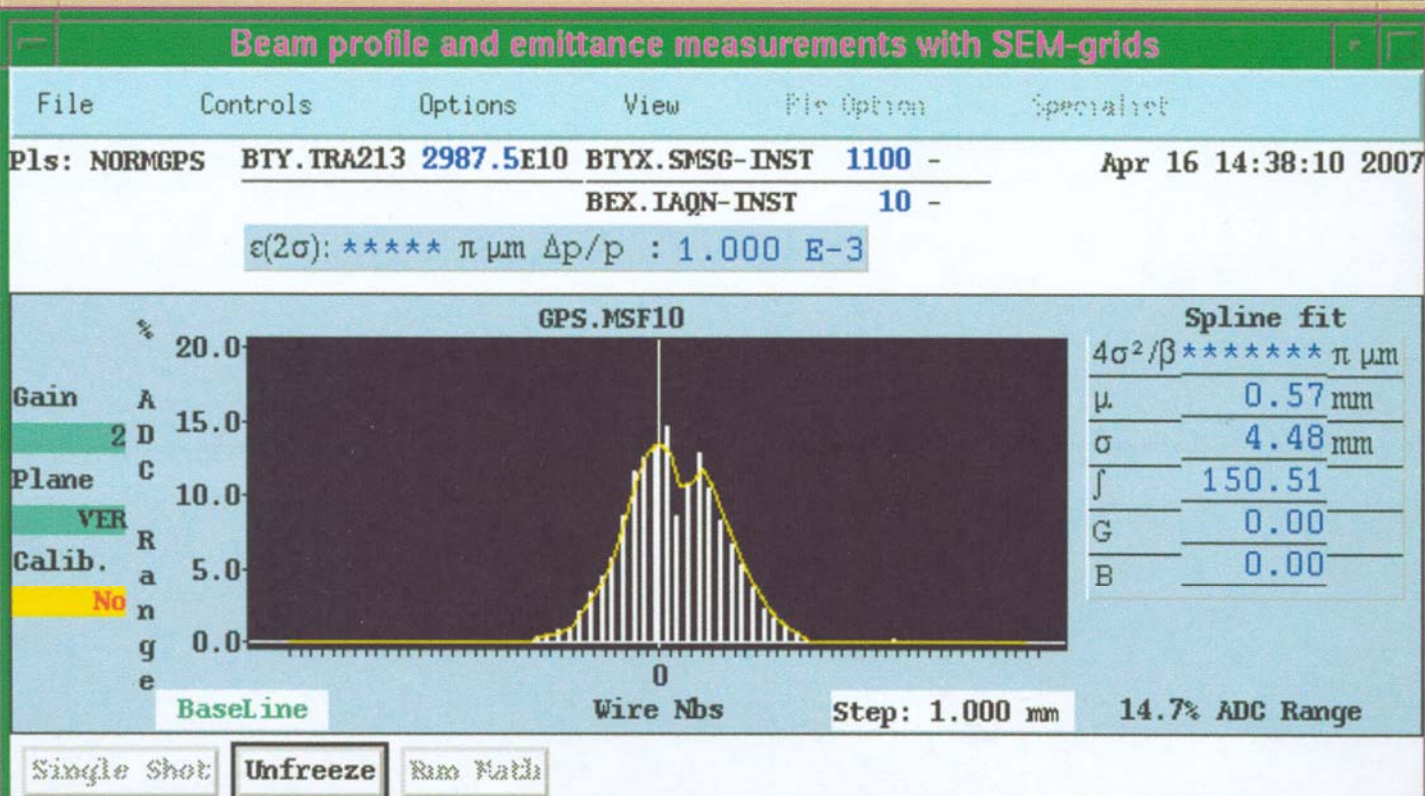
Run Math

Programme in pause !!!

End Line: ISOLDE GPS
 Intensity: 2.9^{E13} ppp (high)
 Focus: Waist of beam on target
 Plane: GPS Vertical

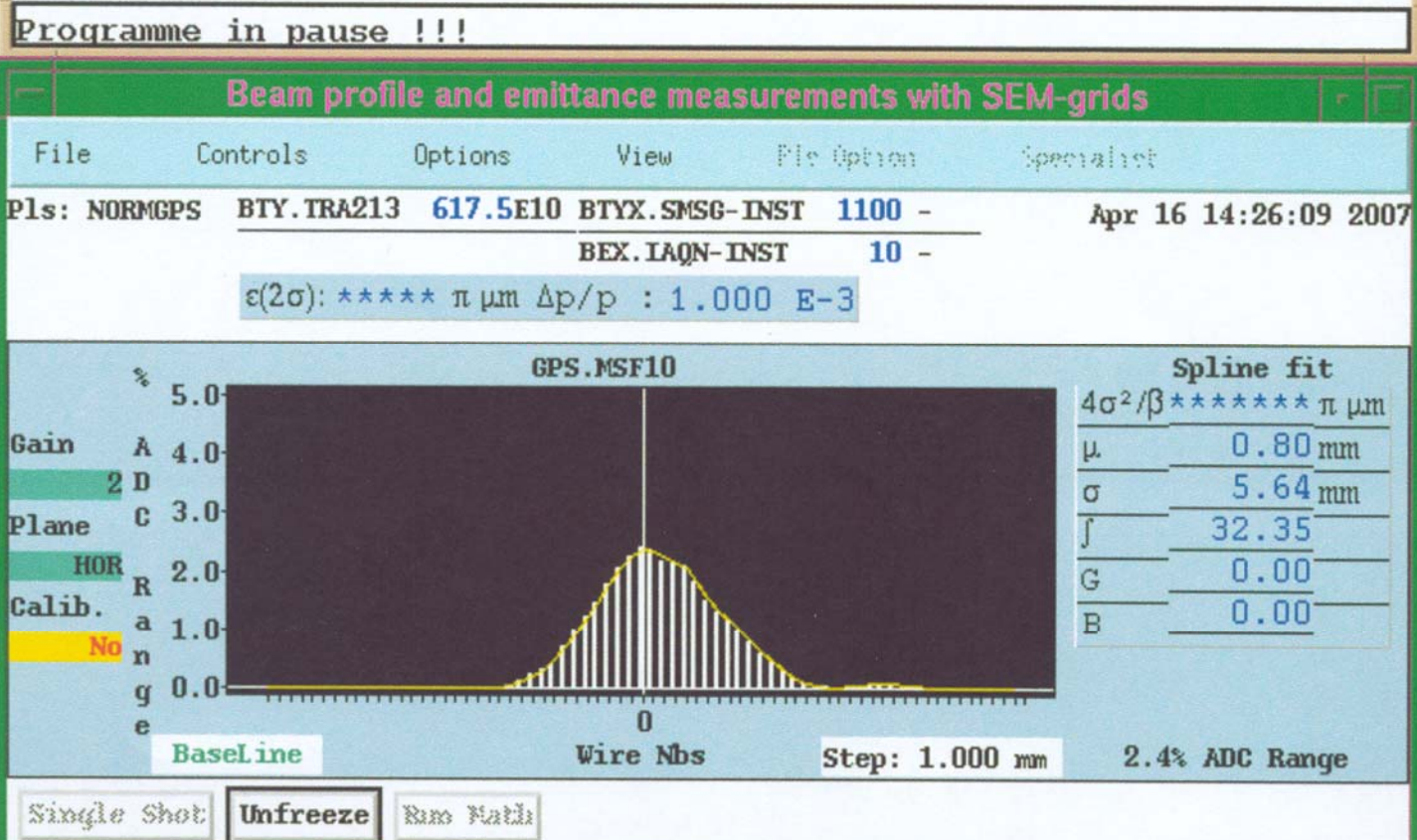
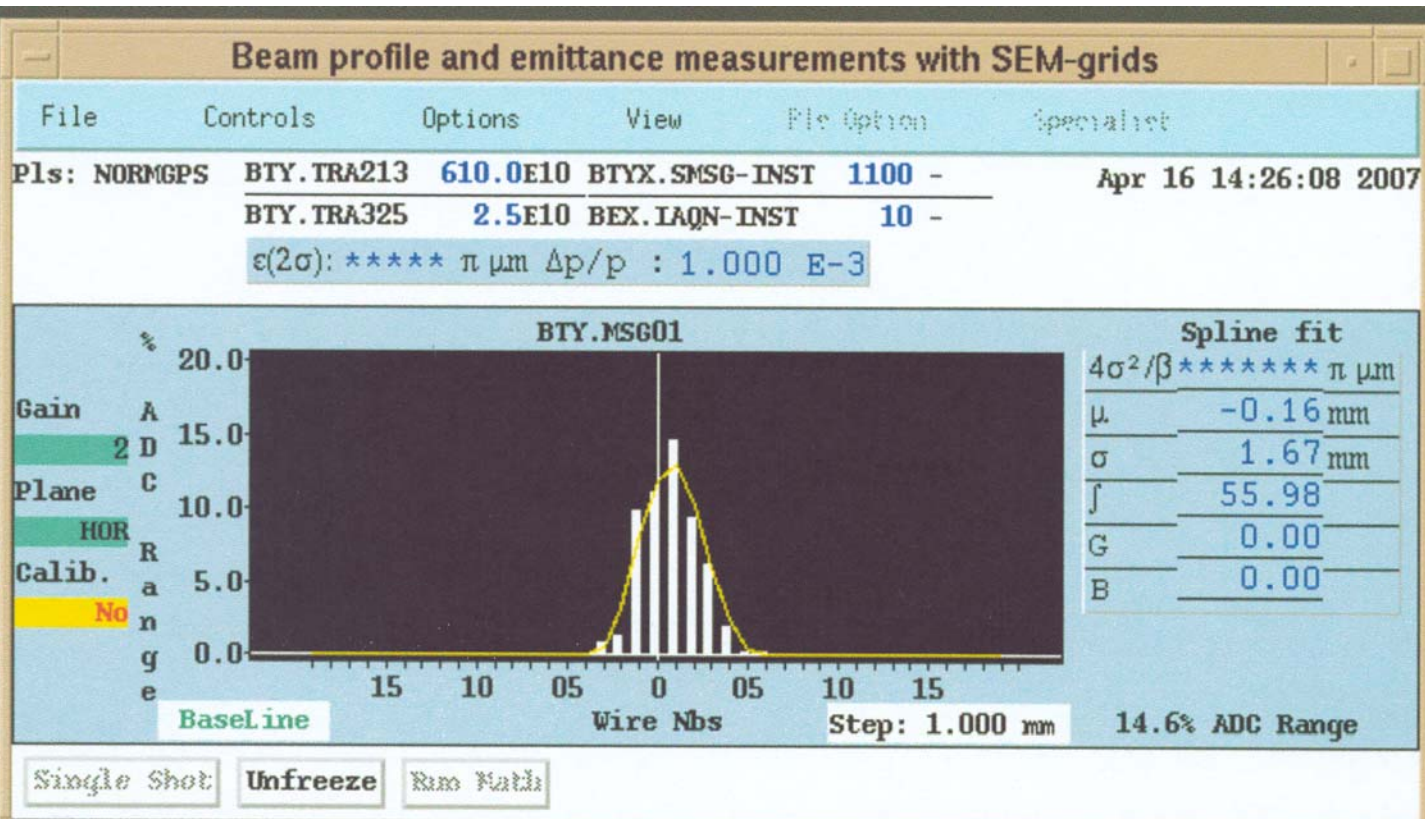


Programme in pause !!!



Programme in pause !!!

End Line: ISOLDE GPS
 Intensity: 6.0×10^{12} ppp (medium)
 Focus: Standard Focus
 Plane: GPS Horizontal



Programme in pause !!!

End Line: ISOLDE GPS
 Intensity: 6.0×10^{12} ppp (medium)
 Focus: Standard Focus
 Plane: GPS Vertical

Beam profile and emittance measurements with SEM-grids

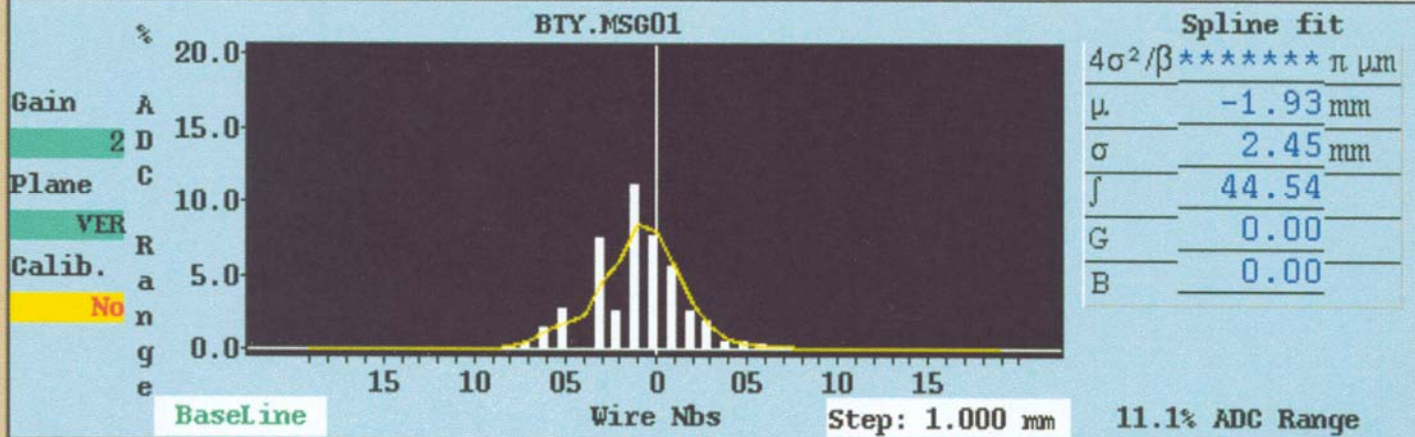
File Controls Options View File Option Specialist

Pls: NORMGPS BTY.TRA213 587.5E10 BTYX.SMSG-INST 1100 -

Apr 16 14:24:22 2007

BTY.TRA325 5.0E10 BEX.IAQN-INST 10 -

$\epsilon(2\sigma)$: ***** $\pi \mu\text{m}$ $\Delta p/p$: 1.000 E-3



Single Shot Unfreeze Run Math

Programme in pause !!!

Beam profile and emittance measurements with SEM-grids

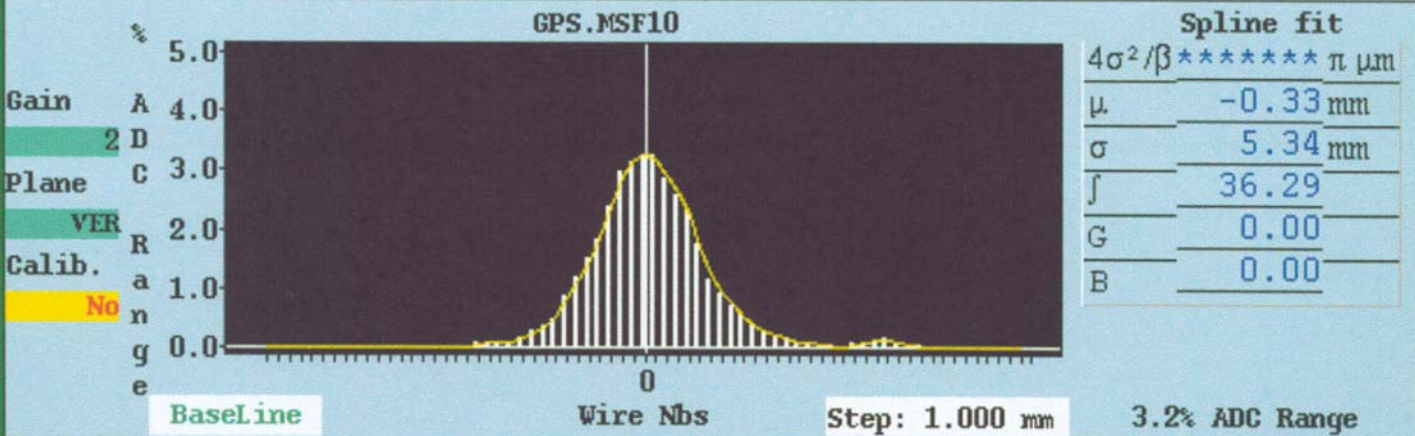
File Controls Options View File Option Specialist

Pls: NORMGPS BTY.TRA213 587.5E10 BTYX.SMSG-INST 1100 -

Apr 16 14:24:22 2007

BEX.IAQN-INST 10 -

$\epsilon(2\sigma)$: ***** $\pi \mu\text{m}$ $\Delta p/p$: 1.000 E-3



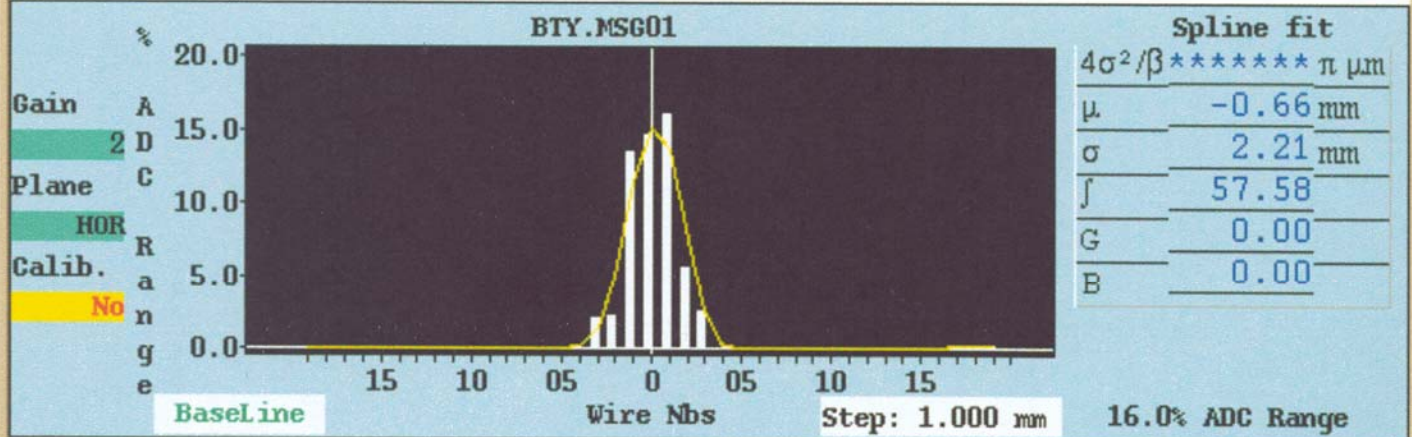
Single Shot Unfreeze Run Math

Programme in pause !!!

End Line: ISOLDE GPS
 Intensity: 6.0×10^{12} ppp (medium)
 Focus: Waist of beam on target
 Plane: GPS Horizontal

Beam profile and emittance measurements with SEM-grids

File Controls Options View File Option Specialist
 Pls: NORMGPS BTY.TRA213 657.5E10 BTYX.SMSG-INST 1100 - Apr 16 14:28:48 2007
 BTY.TRA325 5.0E10 BEX.IAQN-INST 10 -
 $\epsilon(2\sigma)$: ***** $\pi \mu\text{m} \Delta p/p$: 1.000 E-3

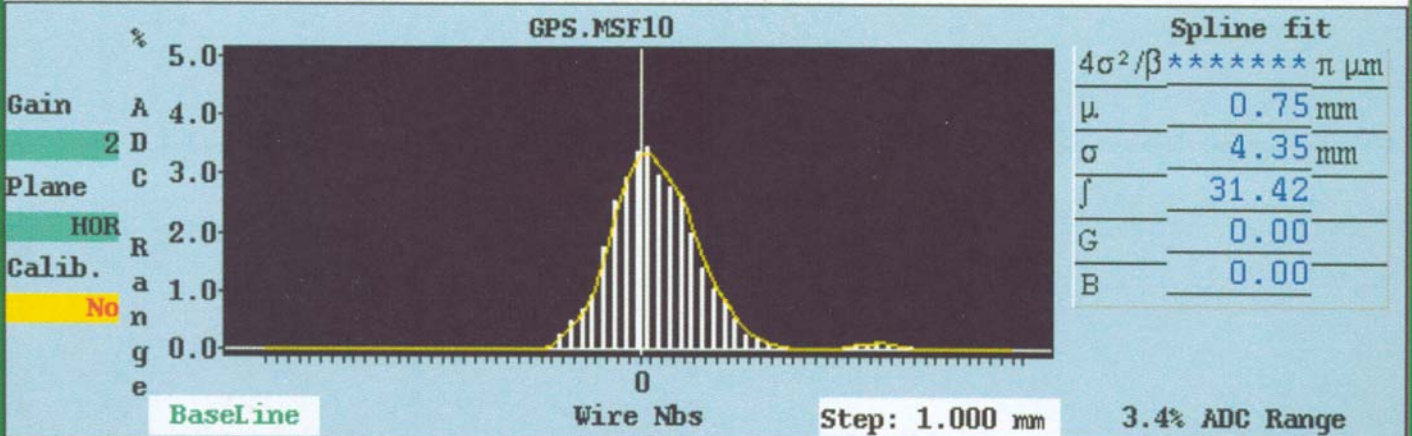


Single Shot Unfreeze Run Math

Programme in pause !!!

Beam profile and emittance measurements with SEM-grids

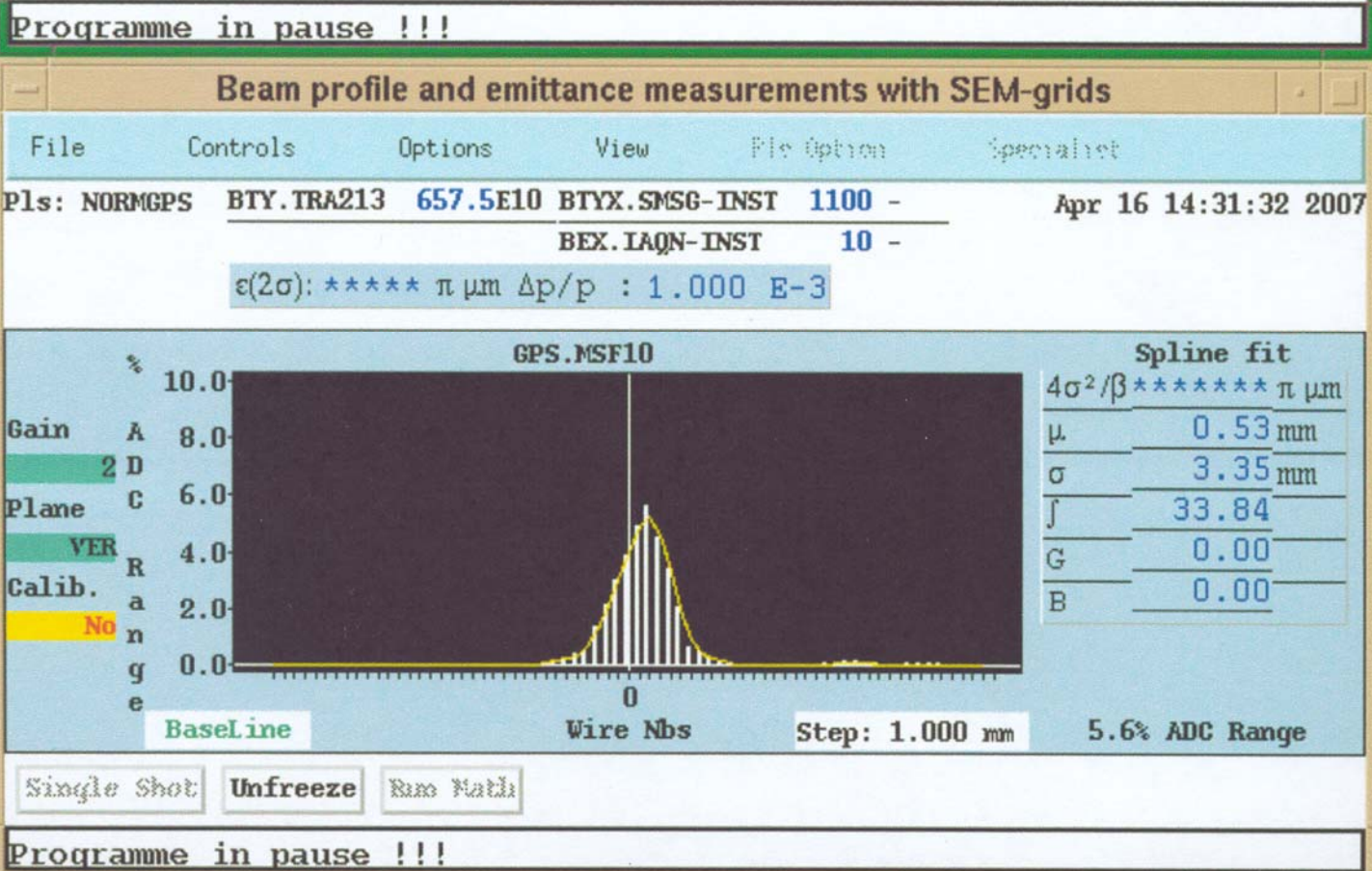
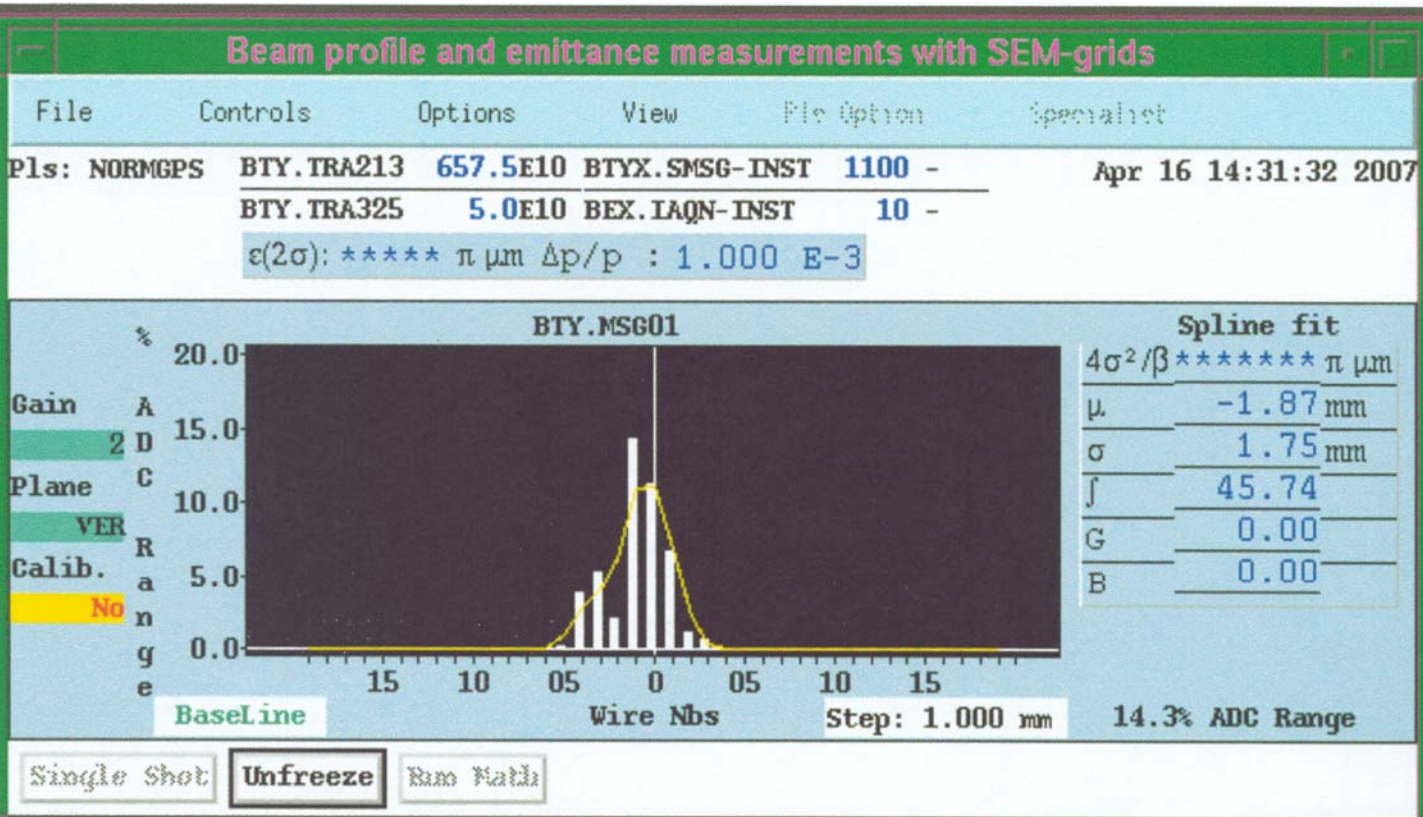
File Controls Options View File Option Specialist
 Pls: NORMGPS BTY.TRA213 657.5E10 BTYX.SMSG-INST 1100 - Apr 16 14:28:49 2007
 BEX.IAQN-INST 10 -
 $\epsilon(2\sigma)$: ***** $\pi \mu\text{m} \Delta p/p$: 1.000 E-3



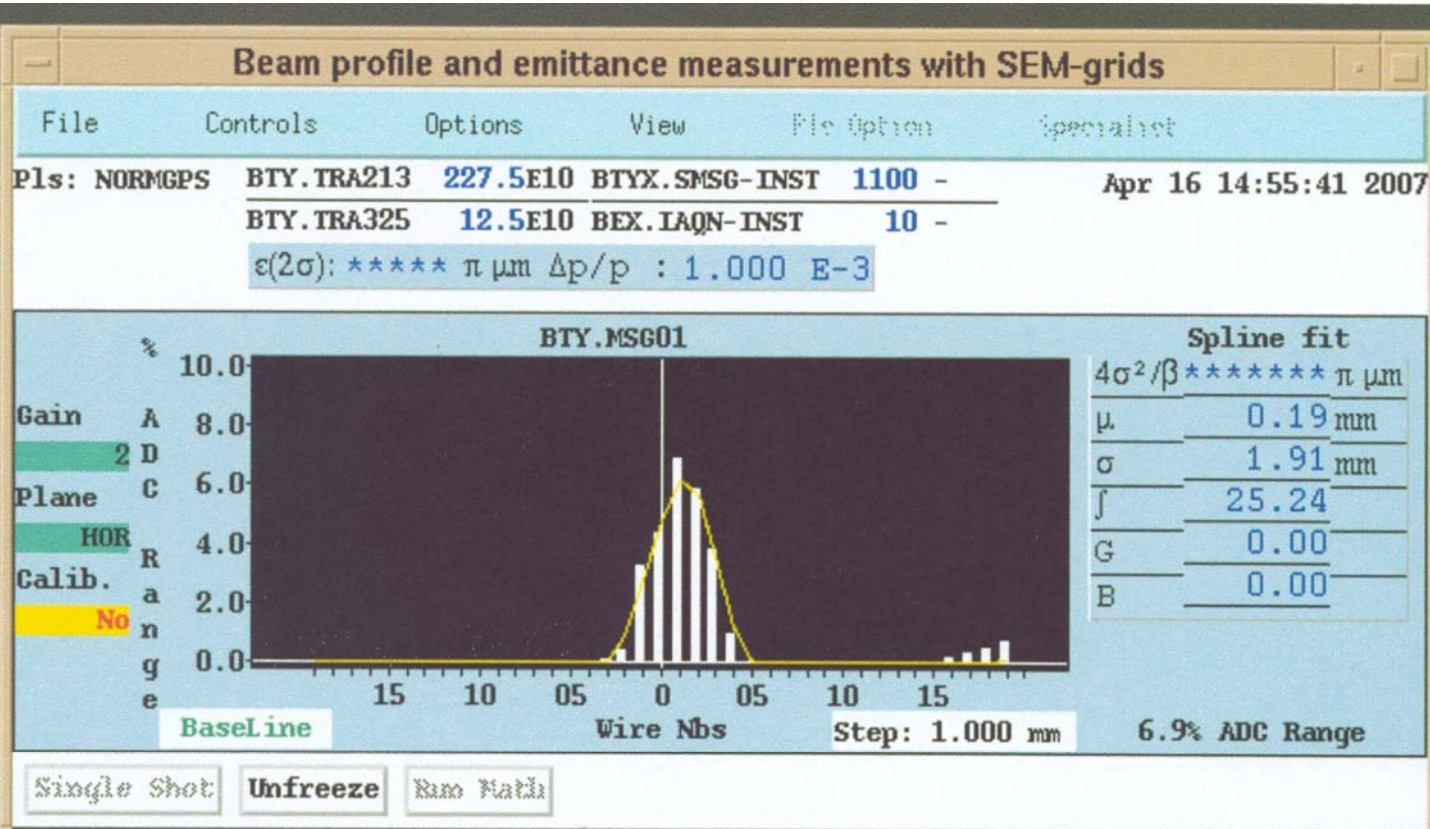
Single Shot Unfreeze Run Math

Programme in pause !!!

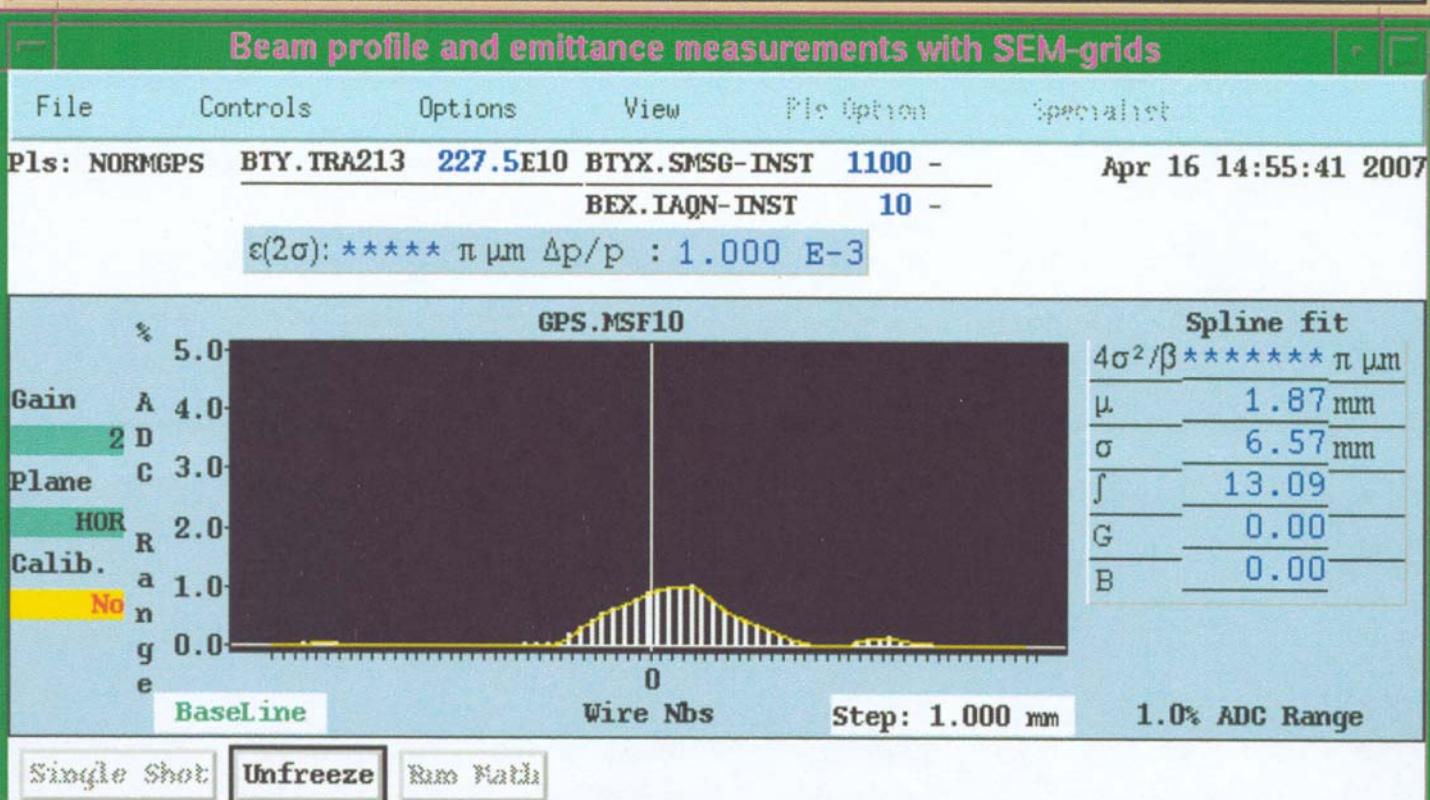
End Line: ISOLDE GPS
 Intensity: 6.0×10^{12} ppp (medium)
 Focus: Waist of beam on target
 Plane: GPS Vertical



End Line: ISOLDE GPS
 Intensity: 2.0×10^{12} ppp (low)
 Focus: Standard Focus
 Plane: GPS Horizontal



Programme in pause !!!



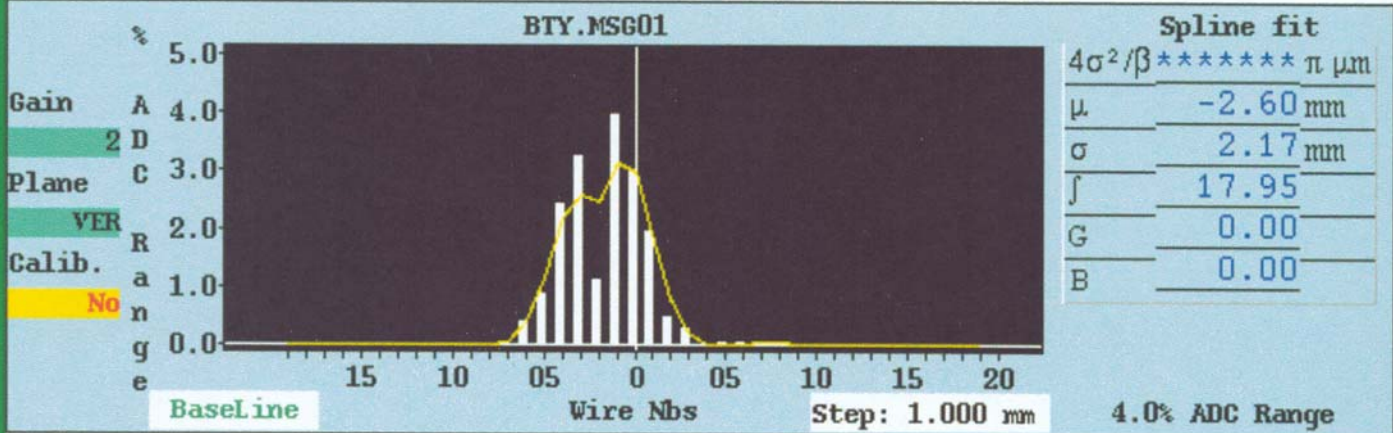
Programme in pause !!!

End Line: ISOLDE GPS
 Intensity: 2.0×10^{12} ppp (low)
 Focus: Standard Focus
 Plane: GPS Vertical

Beam profile and emittance measurements with SEM-grids

File Controls Options View File Option Specialist

Pls: NORMGPS BTY.TRA213 232.5E10 BTYX.SMSG-INST 1100 - Apr 16 14:54:36 2007
 BTY.TRA325 10.0E10 BEX.IAQN-INST 10 -
 $\epsilon(2\sigma)$: ***** $\pi \mu\text{m}$ $\Delta p/p$: 1.000 E-3



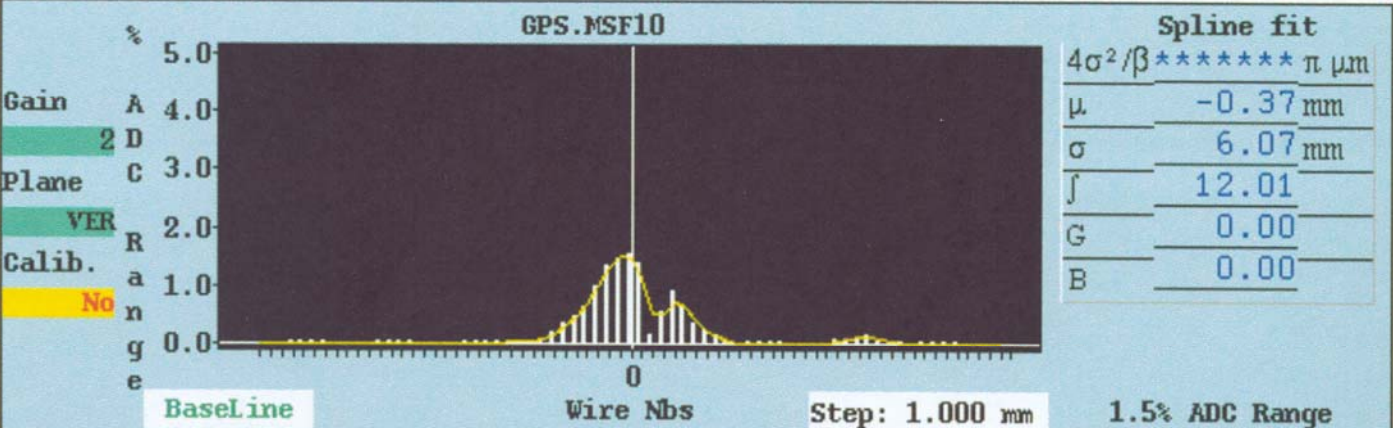
Single Shot Unfreeze Run Math

Programme in pause !!!

Beam profile and emittance measurements with SEM-grids

File Controls Options View File Option Specialist

Pls: NORMGPS BTY.TRA213 232.5E10 BTYX.SMSG-INST 1100 - Apr 16 14:54:37 2007
 BEX.IAQN-INST 10 -
 $\epsilon(2\sigma)$: ***** $\pi \mu\text{m}$ $\Delta p/p$: 1.000 E-3



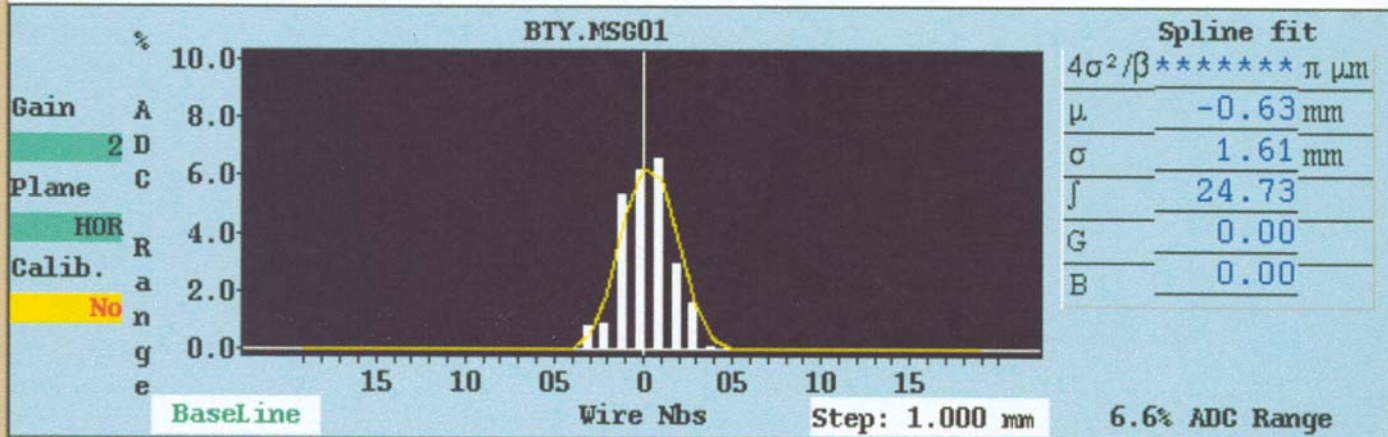
Single Shot Unfreeze Run Math

Programme in pause !!!

End Line: ISOLDE GPS
 Intensity: 2.0^{E12} ppp (low)
 Focus: Waist of beam on target
 Plane: GPS Horizontal

Beam profile and emittance measurements with SEM-grids

File Controls Options View File Option Specialset
 Pls: NORMGPS BTY.TRA213 220.0E10 BTYX.SMSG-INST 1100 - Apr 16 14:46:47 2007
 BTY.TRA325 2.5E10 BEX.IAQN-INST 10 -
 $\epsilon(2\sigma)$: ***** $\pi \mu\text{m} \Delta p/p$: 1.000 E-3

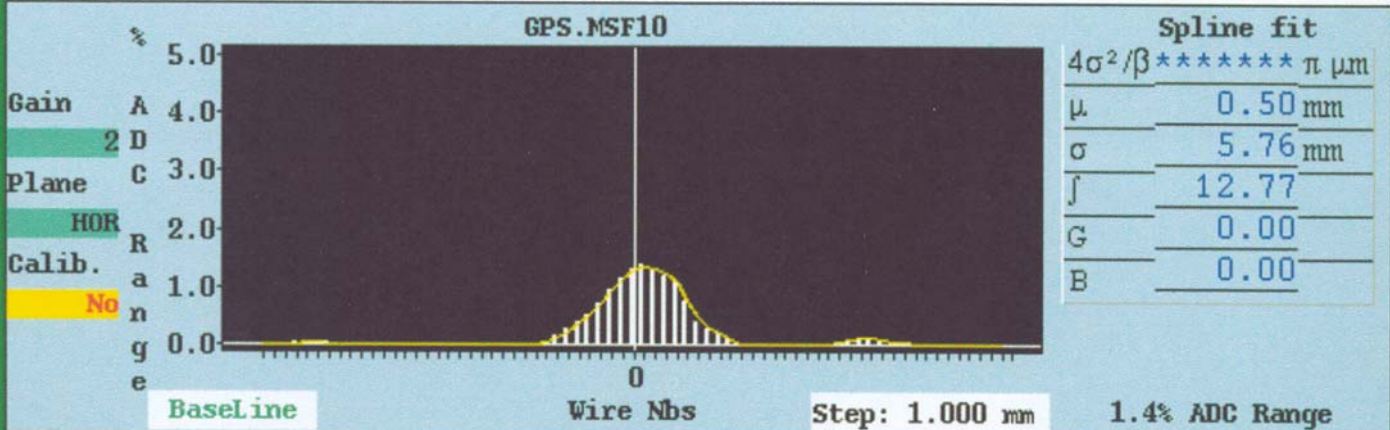


Single Shot Unfreeze Run Math

Programme in pause !!!

Beam profile and emittance measurements with SEM-grids

File Controls Options View File Option Specialset
 Pls: NORMGPS BTY.TRA213 220.0E10 BTYX.SMSG-INST 1100 - Apr 16 14:46:48 2007
 BEX.IAQN-INST 10 -
 $\epsilon(2\sigma)$: ***** $\pi \mu\text{m} \Delta p/p$: 1.000 E-3



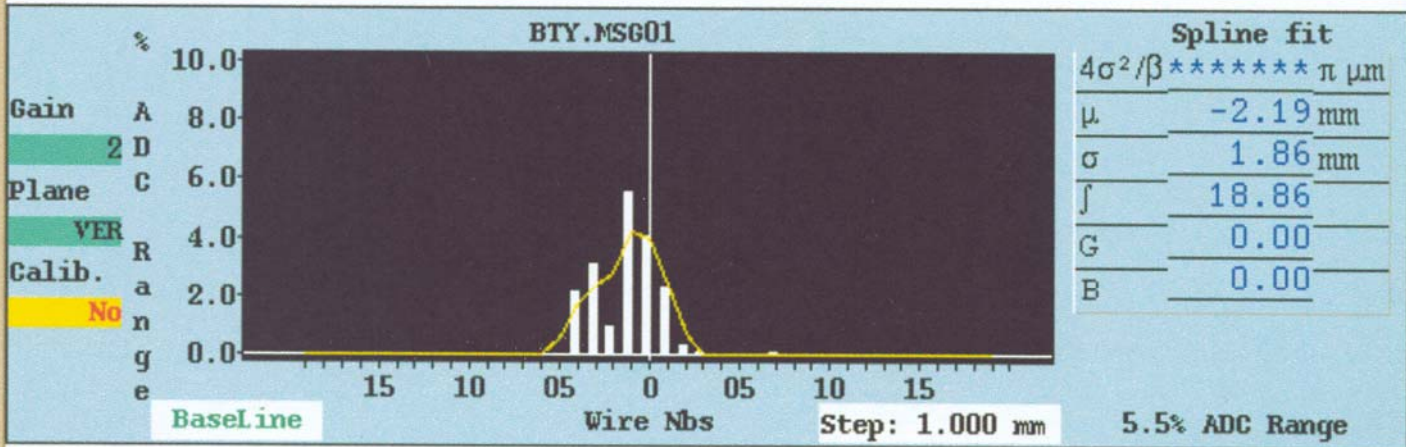
Single Shot Unfreeze Run Math

Programme in pause !!!

End Line: ISOLDE GPS
 Intensity: 2.0×10^{12} ppp (low)
 Focus: Waist of beam on target
 Plane: GPS Vertical

Beam profile and emittance measurements with SEM-grids

File Controls Options View File Option Specialist
 Pls: NORMGPS BTY.TRA213 227.5E10 BTYX.SMSG-INST 1100 - Apr 16 14:48:22 2007
 BTY.TRA325 5.0E10 BEX.IAQN-INST 10 -
 $\epsilon(2\sigma)$: ***** $\pi \mu\text{m}$ $\Delta p/p$: 1.000 E-3

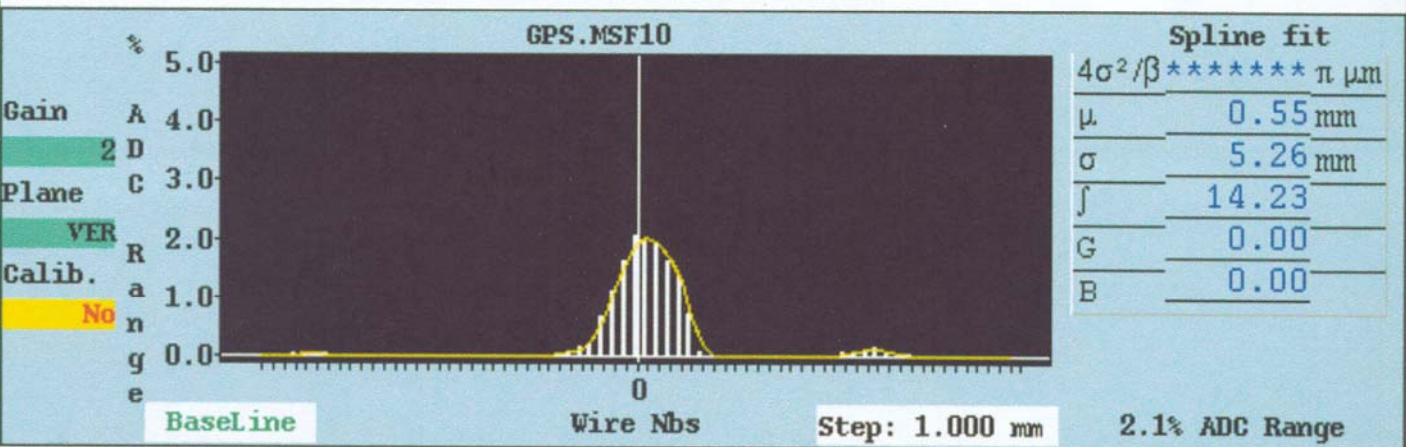


Single Shot Unfreeze Run Math

Programme in pause !!!

Beam profile and emittance measurements with SEM-grids

File Controls Options View File Option Specialist
 Pls: NORMGPS BTY.TRA213 227.5E10 BTYX.SMSG-INST 1100 - Apr 16 14:48:22 2007
 BEX.IAQN-INST 10 -
 $\epsilon(2\sigma)$: ***** $\pi \mu\text{m}$ $\Delta p/p$: 1.000 E-3



Single Shot Unfreeze Run Math

Programme in pause !!!

WorkingSet: PSB:ISOLDE-STEE_BEND - PSB.USER.NORMGPS

File Edit View References Commands Control Programs Help

Apr 16 15:15:51 PSB - NORMGPS

NORMAL view

POW-V	Status	CCV	AQN	Unit
BTM.DHZ10DMP	On	-15.99	-7.00	A
BTM.DHZ10ISO	On	-7.00	-7.00	A
BTY.DHZ118	On	-0.54	-0.52	A
BTY.DHZ124	On	-0.59	-0.59	A
BTY.DHZ152	On	-2.00	-2.00	A
BTY.DHZ201	On	-3.30	-3.31	A
BTY.DHZ211	Off	0.00	0.02	A
BTY.DHZ303	On	-0.15	-0.16	A
BTY.DHZ323	On	0.10	0.10	A

POW-V	Status	CCV	AQN	Unit
BTM.DVT10DMP	On	-6.59	1.10	A
BTM.DVT10ISO	On	1.10	1.10	A
BTY.DVT118	On	-0.50	-0.50	A
BTY.DVT124	On	4.20	4.21	A
BTY.DVT152	On	-4.80	-4.81	A
BTY.DVT201	On	0.00	0.00	A
BTY.DVT212	On	0.00	0.02	A
BTY.DVT303	On	7.00	7.01	A
BTY.DVT324	On	0.10	0.10	A

POW-V	Status	CCV	AQN	Unit
BT.BHZ10ML	On	-376.95	-376.99	A
BT.BHZ10PS	On	0.00	-376.99	A
BTM.BHZ10	On	450.80	449.87	A
BTY.BVT101DMP	On	0.00	446.80	A
BTY.BVT101ISO	On	443.55	446.80	A
BTY.BVT116	On	452.00	452.60	A
BTY.BHZ301GPS	On	0.10	0.00	A
BTY.BHZ301HRS	On	449.52	0.00	A
BTY.BHZ308	On	449.00	449.29	A

GFAS	Enable	Delay	Ampl.	Unit
BTY.GSDIP	Enabled	338.00	10.00	

PTIM-V	Pulse	CCV	AQN	Start	Train
BX.SGSISO	Enabled	335	335	BEX.F900-EJEC	1-KHz
BX.EGSISO	Enabled	150	150	BEX.AMC-CT	1-KHz
BX.GBHZ10AND301	Enabled	150	150	BEX.F550	1-KHz

WorkingSet: PSB:ISOLDE-FOCAL - PSB.USER.NORMGPS

File Edit View References Commands Control Programs Help

Apr 16 15:16:56 PSB - NORMGPS

NORMAL view

POW-V	Status	CCV	AQN	Unit
BT.QN040DMP	On	206.26	204.42	A
BT.QN040ISO	On	204.41	204.42	A
BT.QN040PS	On	257.33	204.42	A
BT.QN050DMP	On	175.00	174.59	A
BT.QN050ISO	On	175.18	174.59	A
BT.QN050PS	On	174.74	174.59	A
BTM.QN005DMP	On	-30.38	128.05	A
BTM.QN005ISO	On	128.04	128.05	A
BTM.QN010DMP	On	-62.56	-172.15	A
BTM.QN010ISO	On	-172.17	-172.15	A
BTM.QN020DMP	On	-130.16	-171.80	A
BTM.QN020ISO	On	-171.84	-171.80	A
BTY.QDE104	On	182.20	182.19	A
BTY.QF0108	On	134.95	134.97	A
BTY.QDE113	On	182.26	182.25	A
BTY.QF0119	On	124.61	124.60	A
BTY.QDE120	On	198.53	198.52	A
BTY.QF0122	On	77.33	77.31	A
BTY.QF0148	On	47.31	47.31	A
BTY.QDE151	On	113.90	113.88	A
BTY.QF0153	On	77.06	77.06	A
BTY.QF0179	On	0.00	0.01	A
BTY.QDE182	On	43.07	43.08	A
BTY.QF0184	On	67.12	67.11	A
BTY.QDE209	On	133.13	132.52	A
BTY.QF0210	On	140.81	140.88	A
BTY.QF0304	On	155.62	155.61	A
BTY.QDE310	On	182.53	182.52	A
BTY.QF0311	On	153.53	153.52	A
BTY.QDE321	On	186.11	186.11	A
BTY.QF0322	On	182.74	183.04	A