

ASTRONOMICAL INSTITUTE  
UNIVERSITY OF BERNE

# Bernese GPS Software Version 4.0

Appendix:

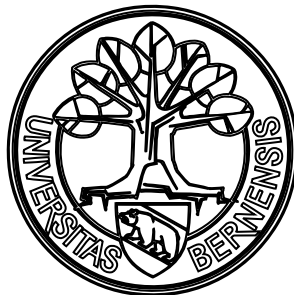
Menu Panels, Option Panels, and  
Help Panels

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# A. Menu Panels

## A.1 Primary Menu Panel and Menu Help Panel

Primary	Bernese GPS Software Version 4.0	
0 ..	DEFAULTS	: Defaults for Processing, Program and File Names
1 ..	CAMPAIGNS	: Informations and Update of Campaigns
2 ..	TRANSFER	: Data Transfer to Bernese Format; Simulation
3 ..	ORBITS	: Orbit Computation, Check and Update
4 ..	PROCESSING	: Preprocessing and Processing of Observations
5 ..	SERVICES	: Service Programs
6 ..	BPE	: Bernese Processing Engine
7 ..	DOCU	: Documentation, Help Panels
9 ..	USER	: Individual User Programs
=H	HELP	: Get Help Panel
=X	EXIT	: Terminate GPS Processing

HELP PANEL FOR MENU PANELS	
Input in the form i.k.l :	Select item l in sub-item k which can be found under item i of CURRENT menu Examples: 1, 2.7.1, 4.5
Input in the form =i.k.l:	same as above, but i belongs to PRIMARY menu Examples: =2.7, =0
Special Input :	=P : Goto primary menu    =Q : Go back one level =X : Exit menu system    =H : Call help panel =S : Look for program, get list of panels
Any other input is treated as DOS command and immediately executed.	
Upper left field:	S: Submit status (Y: Execute immediately) C: Execution class (0: Foreground, 1..4: Batch queue)

## A.2 Menu 0 Panels (Defaults)

0	DEFAULTS: OPTION MENU
1	PROCESSING : Default Options for Processing
2 ..	PROGRAM NAMES : Default Names for Programs
3 ..	DATASET NAMES : Default Names for Datasets
4 ..	SCRIPT NAMES : Default Names for Scripts/Command Files

0.2	DEFAULTS: PROGRAM NAMES
1	TRANSFER : Transfer and Simulation Programs
2	RINEX : RINEX Transfer Programs
3	ORBITS : Orbit Programs
4	PROCESSING : Pre- and Processing Programs
5	SERVICES : Service Programs
6	BPE : Bernese Processing Engine Programs

0.3	DEFAULTS: DATASET NAMES
1	GENERAL : Default Names for General Datasets
2	OBSERVATIONS : Default Names for Observation Datasets
3	ORBITS : Default Names for Orbit Datasets
4	MISCELLANEOUS : Default Names for Miscellaneous Datasets
5	BPE GENERAL : Default Names for General BPE Datasets

0.4	DEFAULTS: SCRIPT NAMES
1	FTP : FTP Script Names
2	BPE : Script Names for Bernese Processing Engine

## A.3 Menu 1 Panels (Campaigns)

1	CAMPAIGNS: OPTION MENU
1	ADD/DEL CAMPAIGN: Add / Delete Campaign in Table
2	CREATE SUBDIR : Create Subdirectories, Default Files
3	DEFINE SESSIONS : Session Definition (Number, Start/End-Time)
4 ..	STATION FILES : Coord, Abbrev, Translation Table, Eccentr
5 ..	AUTOMATION : Prepare Automated Processing
9	REMOVE SUBDIR : Delete Files, Remove Subdirectories

1.4	STATION FILES: OPTION MENU
1	COORDINATES : Create/Update Coordinate File
2	TRANSL. TABLE : Create/Update Station Name Translation Table
3	ABBREVIATIONS : Create/Update 4 and 2 Char Abbreviation Table
4	ECCENTRICITIES : Create/Update Eccentricity File
5	ANTENNA/RECEIVER: Create/Update Rcvr/Antenna Translation Table

1.5	PREPARE AUTOMATED PROCESSING
1	FILE PARAMETERS : Define Parameters for Filenames
2	BASELINES : Predefine Baselines

## A.4 Menu 2 Panels (Transfer)

2	TRANSFER: OPTION MENU	
0 ..	FTP	: Download Data from IGS Data Centers or CODE
2 ..	TI-4100 FILES	: Transfer TI-4100 Rawdata into Bernese Files
5 ..	RAWDATA > RINEX	: Create RINEX Files from Rawdata Files
6 ..	BERNE --> RINEX	: Transfer Bernese Files into RINEX Files
7 ..	RINEX --> BERNE	: Transfer RINEX Files into Bernese Files
8	SIMULATION	: Create Code and Phase Files by Simulation

2.0	FTP: DOWNLOAD DATA FROM IGS DATA CENTERS	
1	IGS RINEX DATA	: RINEX data from Global Data Centers
2	IGS ORBITS	: IGS Precise Orbit Files
3	STATION INFO	: IGS Station Information Files from CODE
4	SATELLITE INFO	: Satellite Information Files from CODE
5	POLE	: Pole Files from CODE

2.5	TRANSFER: Rawdata --> RINEX	
1 ..	TRIMBLE	: Trimble Rawdata Files --> RINEX Files
4 ..	ASHTECH	: Ashtech Rawdata Files --> RINEX Files
5 ..	ROGUE	: Rogue Rawdata Files --> RINEX Files
6 ..	CONCATENATE	: Concatenate RINEX Obs/Nav or Precise Orb.Files
7	SPLIT	: Split Multiple-Station RINEX Observation Files
9	METEO	: Create RINEX Met.data Files

2.5.1	Trimble Rawdata Files --> RINEX Files	
1	OBSERVATIONS	: Rawdata Files --> RINEX Observation Files
2	BROADCAST	: Rawdata Files --> RINEX Navigation Files

2.5.2	Minimac Rawdata Files --> RINEX Files	
1	OBSERVATIONS	: Rawdata Files --> RINEX Observation Files
2	BROADCAST	: Rawdata Files --> RINEX Navigation Files

2.5.3	WM-102 PoPS Files --> RINEX Files	
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1	OBSERVATIONS : PoPS Files --> RINEX Observation Files
2	BROADCAST : PoPS Files --> RINEX Navigation Files

2.5.4	Ashtech BEN-Files --> RINEX Files
1	OBSERVATIONS : B-Files --> RINEX Observation Files
2	BROADCAST : E-Files --> RINEX Navigation Files

2.5.5	Rogue Rawdata Files --> RINEX Files
1	OBSERVATIONS : Rogue-Files --> RINEX Observation Files
2	BROADCAST : Broadcast-Files --> RINEX Navigation Files

2.5.6	Concatenate RINEX Files
1	CCRINEXO : Concatenate Observation Files
2	CCRINEXN : Concatenate Navigation Files
3	CCPREORB : Concatenate Precise Orbit Files

2.6	TRANSFER: BERNE --> RINEX
1	OBSERVATIONS : Transfer Bernese Observ. Files into RINEX
2	BROADCAST : Transfer Bernese Broadcast Files into RINEX

2.7	TRANSFER: RINEX --> BERNE
1	OBSERVATIONS : Transfer RINEX Obs. Files into Bernese Files
2	BROADCAST : Transfer RINEX Broad. Files into Bernese Files
3	METEO : Transfer RINEX Meteo Files into Bernese Files
4	GRAPHICS : Create Pseudographics of RINEX Obs.Files
5	WIDELANE TEST : Check Files using Melbourne/Wuebbena Comb.

### A.5 Menu 3 Panels (Orbits)

3	ORBITS: OPTION MENU
1 ..	BROADCAST CHECK : Check Broadcast Ephemerides
2	CREATE TABULAR : Generate Tabular Orbits from Broadcast/Precise
3	CREATE STANDARD : Generate/Update Standard Orbits
6	DIFF. STANDARD : Display Differences between Standard Orbits
7	CREATE PRECISE : Generate Precise Ephem. from Standard Orbits
8	SATELLITE CLOCKS: Generate Satellite Clock File
9 ..	NEW ORBIT PROGR.: DEF093, UPD093, ORBIMP

3.1	ORBITS: BROADCAST CHECK
1	MANUAL : Manual Broadcast Message Check (BRDCHK)
2	AUTOMATIC : Automatic Broadcast Message Check (BRDTST)

3.9	ORBITS: NEW ORBIT PROGRAMS
1	CREATE STANDARD : Generate Standard Orbits, new RPR model
2	UPDATE STANDARD : Update Standard Orbits, new RPR model
3	ORB. IMPROVEMENT: Estimate Orbit Model Par. using Precise Files
4	COMPARE OSC. ELE: Comparison of the osc. elements (std. orbits)

## A.6 Menu 4 Panels (Processing)

4	PROCESSING: OPTION MENU
1	CODE CHECK : Check Code Files for Outliers
2	CODE PROCESSING : Single Point Positioning
3	SINGLE DIFF. : Form Single Difference Files
4 ..	PHASE CHECK : Check S.Diff. Files for Cycle Slips
5	PAR. ESTIMATION : Estimation of Relevant Parameters
7	ION. ESTIMATION : Estimation of Ionosphere Models
8 ..	COMBINATION : Combination of Solutions

4.4	PROCESSING: PHASE CHECK
1	OLD PHASE CHECK : Old Interactive Phase Preprocessing
2	NEW PHASE CHECK : New Automatic/Interactive Preprocessing

4.8	PROCESSING: COMBINATION OF SOLUTIONS
1	NORMAL EQUATIONS : Combine/manipulate Normal Equation Systems
2	COORD. VAR/COVAR : Combine/compare Coordinates and Var./Covar.

## A.7 Menu 5 Panels (Services)

5	SERVICES: OPTION MENU	
1	OBSERVATIONS	: Browse, Edit , Update and Graphic Obs. Files
2	FILE HEADERS	: Change the Content of Obs. File Headers
3 ..	RESIDUALS	: Browse and Check Residuals
4 ..	COORDINATES	: Compare Coord. Files, Helmert Transformation
5 ..	POLE	: Update and Extract Pole Information
6 ..	EXTRACTIONS	: Generation of output summaries
7 ..	BINARY <-> ASCII	: Conversion Between Binary and ASCII Files
8	DELETE FILES	: Delete GPS Specific Files
9	JOB	: Processing of Job Output

5.3	RESIDUALS: OPTION MENU	
1	BROWSE RESID.	: Browse Residuals of GPSEST,MAUPRP,CODSPP
2	CHECK RESIDUALS	: Check Residuals for Outliers
3	GRAPHIC TOOL	: Display Residuals with GT

5.4	SERVICES: COORDINATES	
1	COMPARISON	: Comparison of Coordinate Files
2	HELMERT	: Helmert Transformation
5	COORDINATE MERGE	: Merge Coordinate Files

5.5	POLE: OPTION MENU	
1	POLE UPDATE	: Reformat and Update Pole Information
2	POLE EXTRACT	: Extract Pole Information from Pole Files

5.6	EXTRACTIONS	
1	CODSPP OUTPUT	: CODSPP output summary (CODXTR)
2	DEFSTD OUTPUT	: DEFSTD output summary (DEFXTR/DEFXTP)
3	MAUPRP OUTPUT	: MAUPRP output summary (MPRXTR)
5	GPSEST/ADDNEQ OUT	: General summary (several formats) (GPSXTR)
7	ORBIT WEIGHTS	: Change accuracy codes in precise orb.(PREWEI)

5.7	SERVICES: BINARY <--> ASCII CONVERSION	
1	OBSFMT	: Zero / Single Difference Files to ASCII
2	FMT OBS	: ASCII to Zero / Single Difference Files
3	STDFMT	: Standard Orbit / RPR Files to ASCII
4	FMT STD	: ASCII to Standard Orbit / RPR Files

## A.8 Menu 6 Panels (BPE)

6	BPE: OPTION MENU
0	PANEL UPDATE : Update Panels for New Release
1	PANEL EDITING : Prepare Option Panels for BPE
2	PREPARE RINEX : Prepare RINEX Files for BPE
3 ..	SPECIAL FILES : Prepare Special Files for BPE
4 ..	BPE PROCESSING : BPE Processing (Session or Campaign)
5 ..	BPE SERVICES : BPE Service Programs

6.3	BPE: SPECIAL FILE PREPARATION
1	FTP STATIONS : Files with Stations for FTP
2	"FIXED" STATIONS : Files with Fixed or Constrained Stations

6.4	BPE: PROCESSING
1	SESSION PROCESSING: Process one or more Sessions of a Campaign
2	CAMPAIGN PROCESSING: Process an Entire Campaign

6.5	BPE: SERVICE PROGRAMS
1	COORDINATE CHECK : Check Coordinates for Baseline Creation
2	RINEX CRD. CHECK : Check RINEX Coord. for Baseline Creation

## A.9 Menu 7 Panel (Docu)

7	DOCUMENTATION, HELP PANELS
1	HELPPDISP : Display Help Panels





## B. Option Panels and Help Panels

### B.1 General Help Panels

#### B.1.1 Help Panel for Data Entry Panels

HELP PANEL FOR DATA ENTRY PANELS	
[ENTER]	: move cursor to first field on next line
[c-ENTER]	: move cursor to last field on previous line
[TAB] or [c-RGT]	: move cursor to next field on same line
[s-TAB] or [c-LFT]	: move cursor to previous field on same line
[UP] and [DOWN]	: move cursor to field above or below
[HOME] and [END]	: move cursor to begin or end of current field
[c-HOME] and [c-END]	: move cursor to top or bottom field
[PGUP] and [PGDN]	: scroll screen up or down
[DEL]	: delete character on cursor position
[BACKSPACE]	: delete character left of cursor position
[INSERT]	: toggle between insert and replace mode
[F5]	: clear whole input field
[F6]	: clear input field from cursor to end
[ESC]	: continue

#### B.1.2 Help Panel for File Selection Panels

HELP PANEL FOR FILE SELECTION PANELS	
[c-ENTER] and [ENTER]	: move cursor to field above or below
[UP] and [DOWN]	: move cursor to field above or below
[c-HOME] and [c-END]	: move cursor to top or bottom field of the list
[c-PGUP] and [c-PGDN]	: move cursor to top or bottom field on screen
[PGUP] and [PGDN]	: scroll screen up or down
[DEL]	: delete character on cursor position
S	: select file
B	: browse file (for ASCII files only!)
[ESC]	: continue

#### B.1.3 Help Panel for Observation File Selection Panels

HELP PANEL FOR OBSERVATION FILE SELECTION PANELS	
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```
[c-ENTER] and [ENTER] : move cursor to field above or below
[UP] and [DOWN] : move cursor to field above or below
[c-HOME] and [c-END] : move cursor to top or bottom field of the list
[c-PGUP] and [c-PGDN] : move cursor to top or bottom field on screen
[PGUP] and [PGDN] : scroll screen up or down
[DEL] : delete character on cursor position
S : select file
X : exit current program
other selection codes may be possible
according to main program panel

[c-D] : enter command
command "$ ALL" = select all files
command "RESET" = reset all selections

[ESC] : continue
```

### B.1.4 Help Panel for Update Panels

```
HELP PANEL FOR UPDATE PANELS

[ENTER] : move cursor to first field on next line
[c-ENTER] : move cursor to last field on previous line
[TAB] or [c-RGT] : move cursor to next field on same line
[s-TAB] or [c-LFT] : move cursor to previous field on same line
[UP] and [DOWN] : move cursor to field above or below
[HOME] and [END] : move cursor to begin or end of current field
[c-HOME] and [c-END] : move cursor to top or bottom field
[DEL] : delete character on cursor position
[BACKSPACE] : delete character left of cursor position
[INSERT] : toggle between insert and replace mode
[F5] : clear whole input field
[F6] : clear input field from cursor to end
[F9] : *** REPEAT CURRENT LINE ***
[c-BACKSPACE] : *** DELETE CURRENT LINE ***

[ESC] : continue
```

## B.2 Option and Help Panels for Menu 0 (Defaults)

0-1	DEFAULTS: PROCESSING	
Job Processing Defaults:		
SUBMIT JOBS	> YES <	(YES or NO)
JOB CLASS	> 0 <	(0:Foreground, 1-4: Batch Queues) (-1 to -4: Scheduled Execution)
ROUTE JOB OUTPUT TO FILE	> YES <	(YES or NO)
ROUTE ERROR MSG TO FILE	> YES <	(YES or NO, non-interactive only)
GENERAL PATH TO JOB OUTPUT	> U:\OUT\	<
DIGITS OF JOB OUTPUT NUMBER	> 2 <	(2 or 3)
Table Processing Defaults:		
CONFIRM DELETE	> YES <	(YES or NO)
Path to Main Program Submit Files:		
PATH	> U:\WORK\	<

0-1	DEFAULTS: PROCESSING	HELP
Job Processing Defaults:		
SUBMIT JOBS:		
Specify whether jobs will be submitted automatically (YES) or not (NO) after their preparation using the menu system. If you specify NO you have the possibility to e.g. check or modify the program input files (I-, F-, and N-file) created by the menu system before running the actual GPS program. In this case you have to start the GPS program manually by typing ("pgmnam" in uppercase !):		
pgmnam <RETURN> for the PC version or		
SJ pgmnam <RETURN> for the UNIX or VMS versions.		
RECOMMENDED VALUE: YES		
JOB CLASS:		
On multitasking systems you have the possibility to choose between different batch queues. The program will run in the foreground if you choose 0, otherwise in the batch queue specified. Have a look at the Bernese startup file LOADGPS -- probably located in your home directory (depending on the installation) -- for the definition of the various batch queues. There you may also define your own job classes.		
If you enter a value < 0 you have the possibility to specify a start time for the job in an additional panel {DAT011__}.		
VMS: Symbols "batch1", ..., "batch4" containing the system queue names of the job classes are defined in the startup file LOADGPS.COM. The value of JOB CLASS corresponds to the number of the batch symbol: e.g. 2 corresponds to the queue defined by the symbol "batch2".		
DOS: No job class selection possible.		
RECOMMENDED VALUE: Always use 0.		
UNIX: The job will run in the job class with the corresponding priority. The various job classes are defined by the variables QUEUE , 1U Q, ..., that are set in the script LOADGPS.		
ROUTE JOB OUTPUT TO FILE:		
Specify whether you want to create a job output file or not:		
YES: Creates a file with the same name as the program to be run together with the extension		
(a) .Lnn with nn = 01 .. 99 (e.g. GPSEST.L89) or		
(b) .nnn with nnn=001 .. 999 (e.g. GPSEST.023)		
The number nn resp. nnn is increased by one after each menu run of the corresponding program (see also menu 5.9 {DAT59__}).		
The numbering scheme depends on the setting of the option "DIGITS OF JOB OUTPUT NUMBER" in this panel here.		
NO : Job output will be written on standard output device (usually the screen).		
RECOMMENDED VALUE: YES		

## B. Option Panels and Help Panels

### ROUTE ERROR MSG TO FILE:

Specify whether you want to save the error messages and warnings in the program output file (option "NO", e.g. saving messages in GPSEST.L89) or in the special error message file defined below (usually called ERROR.MSG, option "YES"). When running the BPE this option has to be set to "YES" in the BPE option panels used.

RECOMMENDED VALUE: YES

### GENERAL PATH TO JOB OUTPUT:

Specify the directory path to save general job output files that are not campaign-specific (e.g. from program POLUPD). This rarely happens, because the normal program output files are saved in the campaign-specific "OUT" directory (see {DAT034\_\_} for more details).

RECOMMENDED VALUE: U:\OUT\

### DIGITS OF JOB OUTPUT NUMBER:

Specify how many different job output files you want to save for each program by using N digits to distinct them. With two digits you can save 100 (00..99) and with 3 digits 1000 (000..999) output files.

Job output file naming convention:

PGMNAM.Lnn (nn=00..99) e.g. GPSEST.L35 for value "2"

PGMNAM.nnn (nnn=000..999) e.g. GPSEST.235 for value "3"

RECOMMENDED VALUE: 2

### Table Processing Defaults:

#### CONFIRM DELETE:

Specify whether you want the menu system to ask you to confirm the deletion of files (e.g deletion of observation files in menu 5.1) (YES) or not (NO).

RECOMMENDED VALUE: YES

#### Path to Main Program Submit Files:

##### PATH:

Specify the path of the command files (resp. batch or shell files) that control the run of the main GPS programs and that are written by the menu system. These command file are named PGMNAM.COM (VAX), PGMNAM.BAT (DOS), or PGMNAM (UNIX).

RECOMMENDED VALUE: U:\WORK\

SF

0-1.1	BATCH PROCESSING: SUBMIT TIME	
	yy mm dd	hh mm ss
Submit Job After:	> 96 02 01 <	> 12 30 00 < (blank: immediately)

0-1.1	BATCH PROCESSING: SUBMIT TIME	HELP
<p>Submit Job After:</p> <p>On multitasking systems you have the possibility to schedule a job. The job will only be started after the time you specify. The job will start immediately if you specify a time earlier than the actual time or when you leave all the fields blank.</p> <p>You have to enter the time in the following format:</p> <p>yy mm dd            hh mm ss</p> <p>&gt; 96 02 01 &lt;    &gt; 12 30 00 &lt;</p> <p>with:</p> <p>yy = Year    e.g. 96            hh = Hour    e.g. 12</p> <p>mm = Month   e.g. 02           mm = Minute e.g. 30</p> <p>dd = Day     e.g. 01           ss = Second e.g. 00</p>		

SF

0.2-1	DEFAULTS: TRANSFER PROGRAM NAMES		
Rawdata Transfer:			
ASHTECH	to RINEX (Obs, Nav)	> ASRINEXO <	> ASRINEXN < *)
MINIMAC	to RINEX (Obs, Nav)	> MCRINEXO <	> MCRINEXN < *)
ROGUE	to RINEX (Obs, Nav)	> RGRINEXO <	> RGRINEXN < *)
TRIMBLE	to RINEX (Obs, Nav)	> TRRINEXO <	> TRRINEXN < *)
WM-102	to RINEX (Obs, Nav)	> W2RINEXO <	> W2RINEXN < *)
RINEX Met.File Creation			
		> RXMETEO <	*)
Concatenate RINEX	(Obs, Nav)	> CCRINEXO <	> CCRINEXN < *)
Concatenate Precise Orbit Files		> CCPREORB <	*)
Split RINEX obs files		> RNXSPLIT <	*)
Simulation Program			
		> GPSSIM <	
Path to the Programs			
		> C:\BERN40\PGM\MAIN40\EXP\ <	
Path to the Programs *)			
		> C:\BERN40\PGM\MAIN40\EXP\ <	

0.2-1	DEFAULTS: TRANSFER PROGRAM NAMES	HELP
General Remark:		
The program names given in this panel should not be changed by the user.		
Rawdata Transfer:		
ASHTECH to RINEX (Obs, Nav): *)		
Specify the programs you use to transform ASHTECH raw data to RINEX format. The first entry field contains the program to transform observations and the second entry field the corresponding program for navigation messages (see menu 2.5.4.1 and 2.5.4.2).		
RECOMMENDED VALUES: ASRINEXO (observations)		
ASRINEXN (navigation messages)		
MINIMAC to RINEX (Obs, Nav): *)		
Specify the programs you use to transform MINIMAC raw data to RINEX format. The first entry field contains the program to transform observations and the second entry field the corresponding program for navigation messages (see menu 2.5.2.1 and 2.5.2.2).		
RECOMMENDED VALUES: MCRINEXO (observations)		
MCRINEXN (navigation messages)		
ROGUE to RINEX (Obs, Nav): *)		
Specify the programs you use to transform ROGUE raw data to RINEX format. The first entry field contains the program to transform observations and the second entry field the corresponding program for navigation messages (see menu 2.5.5.1 and 2.5.5.2).		
RECOMMENDED VALUES: RGRINEXO (observations)		
RGRINEXN (navigation messages)		
TRIMBLE to RINEX (Obs, Nav): *)		
Specify the programs you use to transform TRIMBLE raw data to RINEX format. The first entry field contains the program to transform observations and the second entry field the corresponding program for navigation messages (see menu 2.5.1.1 and 2.5.1.2).		
RECOMMENDED VALUES: TRRINEXO (observations)		
TRRINEXN (navigation messages)		
WM-102 to RINEX (Obs, Nav): *)		
Specify the programs you use to transform WM-102 raw data to RINEX format. The first entry field contains the program to transform observations and the second entry field the corresponding program for navigation messages (see menu 2.5.3.1 and 2.5.3.2).		
RECOMMENDED VALUES: W2RINEXO (observations)		
W2RINEXN (navigation messages)		
RINEX Met.File Creation: *)		
Specify the program you use to transform meteo data into the RINEX meteo file format (see menu 2.5.9).		
RECOMMENDED VALUE : RXMETEO		

## B. Option Panels and Help Panels

<p>Concatenate RINEX (Obs, Nav): *)</p> <p>Specify the programs you use to concatenate two or more data files in RINEX format. The first entry field contains the program to concatenate RINEX observation files and the second entry field contains the corresponding program for navigation messages (see menu 2.5.6.1 and 2.5.6.2).</p> <p>RECOMMENDED VALUES: CCRINEXO (observations) CCRINEXN (navigation messages)</p> <p>Concatenate Precise Orbit Files: *)</p> <p>Specify the program you use to concatenate two ore more satellite orbit files in precise orbit format (see menu 2.5.6.3).</p> <p>RECOMMENDED VALUE : CCPREORB</p> <p>Split RINEX obs files: *)</p> <p>Specify the program you use to split up an observation file in RINEX format (see menu 2.5.7).</p> <p>RECOMMENDED VALUE: RNXSPLIT</p> <p>Simulation Program:</p> <p>Specify the program you use to create simulated observations (see menu 2.8).</p> <p>RECOMMENDED VALUE: GPSSIM</p> <p>Path to the Programs:</p> <p>Specify the path where the menu system will find the corresponding program executables.</p> <p>RECOMMENDED VALUES: C:\BERN40\PGM\MAIN40\EXP\ &lt;</p> <p>Path to the Programs *):</p> <p>Specify the path where the menu system will find the executables of the programs marked with *).</p> <p>RECOMMENDED VALUES: XG: (on DOS: X:\EXE\)</p>	SF
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0.2-2	DEFAULTS: RINEX TRANSFER PROGRAM NAMES
<p>Bernese to RINEX:</p> <p>OBSERVATIONS &gt; BV3RXO &lt;</p> <p>BROADCASTS &gt; BV3RXN &lt;</p> <p>RINEX to Bernese:</p> <p>OBSERVATIONS &gt; RXOBV3 &lt;</p> <p>BROADCASTS &gt; RXNBV3 &lt;</p> <p>METEO &gt; RXMBV3 &lt;</p> <p>Pseudographics &gt; RNXGRA &lt;</p> <p>Phase Test &gt; RNXCYC &lt;</p> <p>Path to the Programs &gt; C:\BERN40\PGM\MAIN40\EXP\ &lt;</p>	

0.2-2	DEFAULTS: RINEX TRANSFER PROGRAM NAMES	HELP
<p>General Remark:</p> <p>The program names given in this panel should not be changed by the user.</p> <p>Bernese to RINEX:</p> <p>OBSERVATIONS:</p> <p>Specify the program you use to transform observation data from Bernese format to RINEX format (see menu 2.6.1).</p> <p>RECOMMENDED VALUE: BV3RXO</p> <p>BROADCASTS:</p> <p>Specify the program you use to transform broadcast messages from Bernese format to RINEX format (see menu 2.6.2).</p>		

RECOMMENDED VALUE: BV3RXN

RINEX to Bernese:

OBSERVATIONS:  
Specify the program you use to transform observation data from RINEX format to Bernese format (see menu 2.7.1).  
RECOMMENDED VALUE: RXOBV3

BROADCASTS:  
Specify the program you use to transform broadcast messages from RINEX format to Bernese format (see menu 2.7.2).  
RECOMMENDED VALUE: RXNBV3

METEO:  
Specify the program you use to transform meteo data from RINEX format to Bernese format (see menu 2.7.3).  
RECOMMENDED VALUE: RXMBV3

Pseudographics:  
Specify the program you use to create a pseudographics in ASCII format showing the availability of satellites for one ore more RINEX observation files (see menu 2.7.4).  
RECOMMENDED VALUE: RNXGRA

Phase Test:  
Specify the program you use to make a zero-difference observation check using the Melbourne/Wuebbena combination of phase and code (see menu 2.7.5).  
RECOMMENDED VALUE : RNXCYC

Path to the Programs:  
Specify the path where the menu system will find the corresponding program executables.  
RECOMMENDED VALUES: C:\BERN40\PGM\MAIN40\EXP\

SF

0.2-3	DEFAULTS: ORBIT PROGRAM NAMES
Broadcast Ephemeris:	
MANUAL BROADCAST CHECK > BRDCHK <	AUTOM. BROADCAST CHECK > BRDTST <
BROADCAST E. to TABULAR > BRDTAB <	
Standard Orbits:	
GENERATE STD.ORBITS > ORBGEN <	UPDATE STD.ORBITS > UPDSTD <
NEW STD.ORBITS > NEWSTD <	COMPARE STD.ORBITS > STDDIF <
STD.ORBITS to ASCII > STDFMT <	ASCII to STD.ORBITS > FMTSTD <
DEFINE STD.ORBITS (NEW) > DEF093 <	UPDATE STD.ORBITS (NEW) > UPD093 <
ORBIT IMPROVEMENT > ORBIMP <	COMPARE OSC. ELEMENTS > STDELE <
Precise Ephemeris:	
PRECISE EPH. to TABULAR > PRETAB <	CREATE PRECISE EPHEM. > STDPRE <
Satellite Clocks:	
CREATE SAT.CLOCK FILE > SATCLK <	
Path to the Programs:	> C:\BERN40\PGM\MAIN40\EXP\ <

0.2-3	DEFAULTS: ORBIT PROGRAM NAMES	HELP
General Remark: The program names given in this panel should not be changed by the user.		
Broadcast Ephemeris:		
MANUAL BROADCAST CHECK:	AUTOM. BROADCAST CHECK:	
Specify the programs you use to perform a check of broadcast messages.		

## B. Option Panels and Help Panels

The first entry field specifies the program that does this check manually and the second entry field specifies the program that does the corresponding check automatically (see menu items 3.1.1 and 3.1.2).  
RECOMMENDED VALUES: BRDCHK (manual check)  
BRDTST (automatic check)

BROADCAST E. to TABULAR:  
Specify the program you use to transform broadcast ephemerides to tabular ephemerides (see menu 3.2).  
RECOMMENDED VALUE: BRDTAB

Standard Orbits:

DEFINE STD.ORBITS:  
Specify the program you use to create or update standard orbits (see menu 3.3). The generation of a standard orbit starts from a set of tabular ephemerides files. For the update of a standard orbit file the second entry field specifies the program that updates a standard. You need an orbital element file saved by GPSEST when estimating orbit parameters.  
RECOMMENDED VALUE: ORBGEN

COMPARE STD.ORBITS:  
This entry field specifies the program you use to compare two standard orbit files (see menu 3.6).  
RECOMMENDED VALUES: STDDIF

STD.ORBITS to ASCII:    ASCII to STD.ORBITS:  
The first entry field specifies the program you use to create an ASCII version of a standard orbit file (see menu 5.7.3).  
The second entry field specifies the program you use to transform an ASCII version of a standard orbit file back into a binary standard orbit file (see menu 5.7.4).  
RECOMMENDED VALUE: STDFMT (Binary standard orbit to ASCII)  
FMTSTD (ASCII standard orbit to binary)

DEFINE STD.ORBITS (NEW):    UPDATE STD.ORBITS (NEW)  
These entry fields specify the programs that are used to create and update standard orbits using a new (special) radiation pressure model (see menu 3.9.1 and 3.9.2).  
You should not use these programs to handle standard orbits.  
RECOMMENDED VALUES: DEF093 (create standard orbits)  
UPD093 (update standard orbits)

ORBIT IMPROVEMENT:    COMPARE OSC. ELEMENTS  
The first entry field specifies the program you use to do an orbit improvement handling the new (special) radiation pressure model (see menu 3.9.3).  
The second entry field specifies the program you use to compare the osculating elements of two standard orbits (see menu 3.9.4).  
RECOMMENDED VALUES: ORBIMP (orbit improvement)  
STDELE (compare osculating elements)

Precise Ephemeris:

PRECISE EPH. to TABULAR:    CREATE PRECISE EPHEM.  
The first entry field specifies the program you use to transform precise ephemerides to tabular ephemerides (see menu 3.2).  
The second entry field specifies the program you use to create precise ephemerides using standard orbits (see menu 3.7).  
RECOMMENDED VALUES: PRETAB (precise to tabular)  
STDPRE (create precise ephemerides)

Satellite Clocks:

CREATE SAT.CLOCK FILE:  
Specify the program you use to extract the satellite clock information from one or more broadcast message files (see menu 3.8).  
RECOMMENDED VALUE: SATCLK

Path to the Programs:

Specify the path where the menu system will find the corresponding program executables.  
RECOMMENDED VALUES: C:\BERN40\PGM\MAIN40\EXP\

SF



0.2-4	DEFAULTS: PROCESSING PROGRAM NAMES
<pre> Preprocessing: CODE PREPROCESSING      &gt; CODCHK &lt; SINGLE POINT POSITIONING  &gt; CODSP  &lt; SINGLE DIFFERENCE FILES  &gt; SNGDIF &lt; OLD PHASE PREPROCESSING &gt; OBSTS1 &lt; NEW PHASE PREPROCESSING &gt; MAUPRP &lt;  Processing: PARAMETER ESTIMATION    &gt; GPSEST &lt; IONOSPHERE ESTIMATION   &gt; IONEST &lt; ADD NORMAL EQUATIONS    &gt; ADDNEQ &lt;  Path to the Programs    &gt; C:\BERN40\PGM\MAIN40\EXP\ &lt;                     </pre>	

0.2-4	DEFAULTS: PROCESSING PROGRAM NAMES	HELP
<pre> General Remark: The program names given in this panel should not be changed by the user.  Preprocessing:  CODE PREPROCESSING: Specify the program you use to perform the preprocessing of one or more code observation files (see menu 4.1). RECOMMENDED VALUE: CODCHK  SINGLE POINT POSITIONING: Specify the program you use to do a code single point positioning for one or more code observation files (see menu 4.2). RECOMMENDED VALUE: CODSP  SINGLE DIFFERENCE FILES: Specify the program you use to form single difference observation files (see menu 4.3). RECOMMENDED VALUE: SNGDIF  OLD PHASE PREPROCESSING: Specify the program you use to MANUALLY check one or more phase single-difference observation files (old version of phase preprocessing). The default name OBSTS1 stands for the menu version of the program OBSTST (see menu 4.4.1). You preferably should use the new automatic preprocessing (see next input field). RECOMMENDED VALUE: OBSTS1  NEW PHASE PREPROCESSING: Specify the program you use to AUTOMATICALLY check one or more phase single-difference observation files (new version of phase pre- processing, see menu 4.4.2). RECOMMENDED VALUE: MAUPRP  Processing:  PARAMETER ESTIMATION: Specify the main program for parameter estimation (see menu 4.5). RECOMMENDED VALUE: GPSEST  IONOSPHERE ESTIMATION: Specify the program you use to estimate ionosphere models (see menu 4.6) that may later be included into the parameter estimation program GPSEST or into the program MAUPRP. RECOMMENDED VALUE: IONEST  ADD NORMAL EQUATIONS: Specify the program you use to stack normal equation systems (see menu 4.8.1) computed by the program GPSEST (see above). RECOMMENDED VALUE: ADDNEQ                     </pre>		

## B. Option Panels and Help Panels

Path to the Programs:  
Specify the path where the menu system will find the corresponding  
program executables.  
RECOMMENDED VALUES: C:\BERN40\PGM\MAIN40\EXP\

SF

0.2-5	DEFAULTS: SERVICE PROGRAM NAMES	
Observation Files:		
BINARY TO FORMATTED	> OBSFMT <	FORMATTED TO BINARY > FMTOBS <
GRAPHICS OF OBSERV.FILE	> SATGRA <	MARK/RESET OBSERVATIONS > SATMRK <
SPLIT OBSERVATION FILES	> OBSSPL <	CHANGE HEADER CONTENT > CHGHED <
Residuals:		
DISPLAY RESIDUALS	> REDISP <	GRAPHIC TOOL (GT) *) > GT <
CHECK RESIDUALS	> RESRMS <	
Coordinates:		
HELMERT TRANSFORMATION	> HELMR1 <	COMPARE COORD.FILES > COMPAR <
MERGE COORDINATE FILES	> CRDMRG <	
Pole:		
UPDATE POLE FILE	> POLUPD <	EXTRACT POLE INFO > POLXTR <
Job Output Extractions		
CODXTR (CODSPP)	> CODXTR <	DEFXTR (ORBGEN) > DEFXTP <
MPRXTR (MAUPRP)	> MPXTR <	GPSXTR (GPSEST,ADDNEQ) > GPSXTR <
PREWEI (ORBIMP,PRECISE)	> PREWEI <	
Path to the Programs	> C:\BERN40\PGM\MAIN40\EXP\ <	
Path to the Programs *)	> X:\EXE\ <	

0.2-5	DEFAULTS: SERVICE PROGRAM NAMES	HELP
General Remark:		
The program names given in this panel should not be changed by the user.		
Observation Files:		
BINARY TO FORMATTED: FORMATTED TO BINARY:		
The first entry field specifies the program you use to transform observations from Bernese binary format to ASCII format (see menu 5.7.1).		
The second entry field specifies the program you use to transform the ASCII version of Bernese observations into the binary format (see menu 5.7.2).		
You use these transformations when you have to do some changes to observations given in Bernese format.		
RECOMMENDED VALUE: OBSFMT (binary to ASCII)		
FMTOBS (ASCII to binary)		
GRAPHICS OF OBSERV.FILE: MARK/RESET OBSERVATIONS:		
The first entry field specifies the program you use to create a pseudographics in ASCII format showing the observation intervals of satellites for one or more observation files in Bernese format.		
The second entry field specifies the program you use to mark and reset observations in Bernese observation files.		
RECOMMENDED VALUES: SATGRA (graphics of observation files)		
SATMRK (mark/reset observations)		
SPLIT OBSERVATION FILES: CHANGE HEADER CONTENT:		
The first entry field specifies the program you use to split observation files in Bernese format into two or more parts.		
The second entry field specifies the program you use to change the header information of observation files in Bernese format (see menu 5.2).		
RECOMMENDED VALUES: OBSSPL (split observation files)		
CHGHED (change header content)		
Residuals:		

DISPLAY RESIDUALS:                           GRAPHIC TOOL (GT): \*)  
The first entry field specifies the program you use to look at the residuals stemming from GPSEST, DEFSTD, ADDNEQ in a ASCII file (see menu 5.3.1).  
The second entry field specifies the graphic tool that displays the residuals stemming from GPSEST, DEFSTD, ADDNEQ as an x-terminal graphics. At present this program runs on UNIX machines only (see menu 5.3.3).  
RECOMMENDED VALUES: REDISP (display residuals)  
                          GT           (graphic tool GT)

CHECK RESIDUALS:  
Specifies the program you use to determine a baseline- and satellite-specific rms of the residuals in residual files generated by GPSEST and to get a list of bad observations to be marked (see menu 5.3.2).  
RECOMMENDED VALUE: RESRMS

Coordinates:

HELMERT TRANSFORMATION:                   COMPARE COORD.FILES:  
The first entry field specifies the program you use to compute a Helmert transformation between two sets of station coordinates.  
The second entry field specifies the program you use to compare baseline lengths, latitudes, longitudes, heights of different station coordinate files (see menu 5.4.2 and 5.4.1 respectively).  
RECOMMENDED VALUES: HELMR1 (Helmert transformation)  
                          COMPAR (compare coord. files)

MERGE COORDINATE FILES:  
Specifies the program you use to merge two station coordinate files. This program can be used to update a coordinate file automatically (see menu 5.4.5).  
RECOMMENDED VALUES: CRDMRG

Pole:

UPDATE POLE FILE:                           EXTRACT POLE INFO:  
The first entry field specifies the program you use to update the earth rotation parameters using bulletin A or B from IERS (see menu 5.5.1).  
The second entry field specifies the program you use to extract the pole values estimated by the program GPSEST or ADDNEQ (see menu 5.5.2).  
RECOMMENDED VALUES: POLUPD (update pole file)  
                          POLXTR (extract pole info)

Job Output Extractions:

CODXTR (CODSPP):                           DEFXTR (ORBGEN):  
The first entry field specifies the program you use to extract the most important information from CODSPP output files (see menu 5.6.1).  
The second entry field specifies the program you use to extract the most important information from ORBGEN output files (see menu 5.6.2).  
RECOMMENDED VALUES: CODXTR (CODSPP output)  
                          DEFXTP (ORBGEN output)

MPRXTR (MAUPRP):                           GPSXTR (GPSEST,ADDNEQ):  
The first entry field specifies the program you use to extract the most important information from MAUPRP output files (see menu 5.6.3).  
The second entry field specifies the program you use to extract miscellaneous information from GPSEST or ADDNEQ output files (see menu 5.6.5)  
RECOMMENDED VALUES: MPRXTR (MAUPRP output)  
                          GPSXTR (GPSEST,ADDNEQ output)

Path to the Programs:  
Specify the path where the menu system will find the corresponding program executables.  
RECOMMENDED VALUES: C:\BERN40\PGM\MAIN40\EXP\

Path to the Programs \*):  
Specify the path where the menu system will find the executables of the programs marked with \*).  
RECOMMENDED VALUES: X:\EXE\

SF

B. Option Panels and Help Panels

0.2-6	DEFAULTS: BPE PROGRAM NAMES
<p>Coordinates:</p> <p>CHECK COORDINATE FILES &gt; CRDCHK &lt;</p> <p>CHECK RINEX COORDINATES &gt; CRDRNX &lt;</p> <p>CHECK RINEX FILE HEADERS &gt; PREPRX &lt;</p> <p>Path to the Programs &gt; C:\BERN40\PGM\BPE40\EXP\ &lt;</p>	

0.2-6	DEFAULTS: BPE PROGRAM NAMES	HELP
<p>General Remark:</p> <p>The program names given in this panel should not be changed by the user.</p> <p>Coordinates:</p> <p>CHECK COORDINATE FILES:</p> <p>Specifies the program you use to check the quality of coordinates in a coordinate file (see menu 6.5.1).</p> <p>RECOMMENDED VALUE: CRDCHK</p> <p>CHECK RINEX COORDINATES:</p> <p>Specifies the program you use to read coordinates in RINEX headers and write a list of nearby IGS stations to be used for computing good a priori coordinates (see menu 6.5.2).</p> <p>RECOMMENDED VALUE: CRDRNX</p> <p>CHECK RINEX FILE HEADERS:</p> <p>Specifies the program you use to check and modify the header information of RINEX files (menu 6.3).</p> <p>RECOMMENDED VALUE: PREPRX</p> <p>Path to the Programs:</p> <p>Specify the path where the menu system will find the corresponding program executables.</p> <p>RECOMMENDED VALUES: C:\BERN40\PGM\BPE40\EXP\</p>		
		SF

0.3-1	DEFAULTS: GENERAL DATASET NAMES																
<p>General Datasets:</p> <p>GEODETIC DATUM &gt; DATUM. &lt; CONSTANTS &gt; CONST. &lt;</p> <p>PHASE CENTER ECC. &gt; PHASITRF. &lt; RECEIVER INFO &gt; RECEIVER. &lt;</p> <p>EARTH POTENTIAL &gt; GEMT3. &lt; POLE INFORMATION &gt; RAP_1996.ERP &lt;</p> <p>POLE OFFSET COEF. &gt; POLOFF. &lt; LEAP SECONDS &gt; GPSUTC. &lt;</p> <p>SAT. PARAMETERS &gt; SATELLIT.TTT &lt; MANOEUVERS ETC. &gt; SAT_1996.CRX &lt;</p> <p>SINEX GENERAL FILE &gt; SINEX. &lt; STATION PROBLEMS &gt; STACRUX. &lt;</p> <p>Extensions:</p> <p>IERS BULLETINS &gt; IER &lt; RCVR/ANT.NAME TRANSLATION TABLES &gt; TRN &lt;</p> <p>Path to the Datasets: &gt; X:\GEN\ &lt;</p> <p>Input Files:</p> <table border="0"> <tr> <td></td> <td>Path</td> <td></td> <td>Extension</td> </tr> <tr> <td>N-,I-,F-FILES</td> <td>&gt; U:\INP\</td> <td>&lt;</td> <td>&gt; INP &lt;</td> </tr> <tr> <td>SKELETON FILES</td> <td>&gt; X:\SKL\</td> <td>&lt;</td> <td>&gt; SKL &lt;</td> </tr> <tr> <td>PANEL UPDATE DIRECTORY LISTS</td> <td>&gt; X:\SKL\</td> <td>&lt;</td> <td>&gt; UPD &lt;</td> </tr> </table> <p>Auxiliary Files (Scratch Files) &gt; U:\WORK\ &lt; &gt; SCR &lt;</p> <p>Error Message File (Full Name): &gt; U:\WORK\ERROR.MSG &lt;</p>			Path		Extension	N-,I-,F-FILES	> U:\INP\	<	> INP <	SKELETON FILES	> X:\SKL\	<	> SKL <	PANEL UPDATE DIRECTORY LISTS	> X:\SKL\	<	> UPD <
	Path		Extension														
N-,I-,F-FILES	> U:\INP\	<	> INP <														
SKELETON FILES	> X:\SKL\	<	> SKL <														
PANEL UPDATE DIRECTORY LISTS	> X:\SKL\	<	> UPD <														

0.3-1	DEFAULTS: GENERAL DATASET NAMES	HELP
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General Datasets:

General remark concerning the general datasets:

All these general files are used by many of the GPS programs. You do not have the possibility to select any of these general files in the program-specific part of the menu (e.g. the name of the pole file to be used in the parameter estimation program GPSEST cannot be specified in menu 4.5 dealing with the preparation of GPSEST runs). The menu system will not even show you which of these general files are used. It is therefore very important to CHECK WHETHER YOU USE THE CORRECT GENERAL FILES at the beginning of the processing of a campaign.

GEODETTIC DATUM:

Geodetic datum: This file contains the definition of the geodetic datum and of the ellipsoid to be used to compute ellipsoidal coordinates. It is used to apply antenna heights and for the printing of coordinates in the local system (north, east, up). You only have to modify this file when you want to introduce a new reference ellipsoid (see {X:\GEN\DATUM.} as an example).

Constants: This file contains all the physical and astronomical constants used in the Bernese GPS Software and therefore it is used by most of the programs. Most probably you will never have to modify this file (see {X:\GEN\CONST.})

RECOMMENDED VALUES: Geodetic datum: DATUM.

Constants: CONST.

CONSTANTS:

PHASE CENTER ECC.:

Phase center ecc: This file contains the phase center offsets and, possibly, elevation-dependent phase center variations for most of the commonly used receiver/antenna pairs. This file is used in programs where o-c (observed-computed) values have to be calculated. You have to modify this file when you use a new receiver/antenna pair or when you introduce new elevation-dependent corrections. See {X:\GEN\PHAS\_IGS.01} for an example.

Receiver info: This file contains receiver information and is only used to generate simulated observations (program GPSSIM). It has to be modified when you introduce a new receiver type. An example may be found in {X:\GEN\RECEIVER.}.

RECOMMENDED VALUES: Phase center ecc: PHASITRF.

Receiver info: RECEIVER.

RECEIVER INFO:

EARTH POTENTIAL:

Earth potential: This file contains the earth potential coefficients. It is used in most of the programs dealing with satellite orbits. This file does not have to be modified. Example: {X:\GEN\GEMT3.}.

Pole information: This file contains the earth rotation parameters (ERP's). It is used in all programs where transformations between the International Celestial Reference Frame (ICRF) and the International Terrestrial Reference Frame (ITRF) have to be made. This file has to be updated each time you have to process data of a time span that is not yet covered by the information given in the pole file. Therefore it is best to regularly update the file from the IERS Bulletin B (CO4 series) or IERS Bulletin A (rapid pole series). The CO4 IERS solution contains the final ERP information of the IERS and will only become available about 2 months after the observations. Predictions are made available for most of these 2 months. If you have to process a campaign that has been measured very recently you will have to use the rapid pole series coming from the IERS Subbureau. This pole series also contains predictions. If you have an FTP (File Transfer Protocol) connection then you can omit the update by getting the two ERP series mentioned above from our anonymous ftp account. You can copy these files as follows:

```
ftp UBECU.UNIBE.CH      (130.92.4.11)
userid: anonymous
passwd: "e-mail address"
cd aiub$ftp             (enter this command even if this
                        directory does not appear in a listing)

cd bswuser
cd gen
If you need the CO4 pole series then type
get CO4_YYYY.ERP        where YYYY=Year   e.g CO4_1996.ERP
If you need the rapid pole series then type
get RAP_YYYY.ERP        where YYYY=Year   e.g RAP_1996.ERP
```

Examples are {X:\GEN\CO4\_1996.ERP} and {X:\GEN\RAP\_1996.ERP}. IGS ERP values are available together with the precise IGS orbits at the global IGS data centers.

RECOMMENDED VALUES: Earth potential: GEMT3.  
Pole information: CO4\_yyyy.erp (yyyy=year) or  
the pole file corresponding to the precise orbit  
file used

POLE OFFSET COEF.: LEAP SECONDS:  
Pole offset coef: This file contains the pole offset information that  
is used to transform CO4-pole and Rapid-pole information to the  
actual epoch (e.g. CO4 ITRF 1988 to CO4 ITRF 1996). This file has to  
be updated every year to introduce the new "constants" given in the  
annual report of the IERS. You do not need this file at all if you  
use the CO4- or the Rapid-pole from the anonymous ftp account of AIUB  
(Astronomical Institute of the University of Berne) (access see  
above). Example: {X:\GEN\POLOFF.}.  
Leap seconds: This file contains a table of all the leap seconds during  
the last ten years. This information is used to transform the  
pole information from Bulletin A and B (see above) into the Bernese  
pole format. You have to modify this file whenever a new leap  
second is announced by the IERS. You do not need this file at all if  
you use the CO4- or the Rapid-pole from the anonymous ftp account of  
AIUB (access see above). Example: {X:\GEN\GPSUTC.}.  
RECOMMENDED VALUES: Pole offset coef: POLOFF.  
Leap seconds: GPSUTC.

SAT. PARAMETERS: MANOEUVERS ETC.:  
Sat. parameters: This file contains different satellite information.  
It is used by all programs that use satellite orbits. You have to  
modify this file every time you need to introduce new launched  
satellites. Each satellite has to appear once (and only once) in this  
table. Example: {X:\GEN\SATELLIT.TTT}.  
Manoeuvres etc: This file contains information on satellite problems.  
It is used to exclude bad satellites and their observations in all  
the processing. This file has to be updated every time when a new  
satellite problem appears (satellite manoeuvres, bad data,...).  
If you have FTP access then you can copy this file from the  
anonymous FTP account of AIUB.  
After login into this account and changing into the corresponding  
directory (access and directory see above) you just have to type  
get SAT\_yyyy.CRX where yyyy=Year e.g SAT\_1996.CRX  
Example: {X:\GEN\SAT\_1996.CRX}.  
RECOMMENDED VALUES: Sat. Parameters: SATELLIT.TTT  
Manoeuvres etc: SAT\_yyyy.CRX (yyyy=year)

SINEX GENERAL FILE: STATION PROBLEMS:  
Sinex general file: This file contains the general input information  
you use when you want to create SINEX (Software independent  
exchange format) files. It has to be modified each time you want  
to change some of the general sinex information.  
Example: {X:\GEN\SINEX.}.  
Station problems: This file contains information on station problems.  
It is used to change station names, antenna heights etc when  
processing normal equation files with the program ADDNEQ.  
Example: {X:\GEN\STACRUX}.  
RECOMMENDED VALUES: Sinex General file : SINEX.  
Station problems : leave this entry field "blank"

Extensions:

IERS BULLETINS: RCVR/ANT.NAME TRANSLATION TABLES:  
IERS Bulletin: This entry field contains the extension of the IERS  
Bulletin A or B files. The menu system uses this information to  
search for these Bulletins.  
Example: {X:\INX\EXAMPLE.IER}  
Rcvr/ant.name translation tables: This entry field contains the  
extension of the receiver/antenna name translation table. This table  
is used to ensure consistent receiver/antenna names are used in the  
Bernese observation files when transferring RINEX to Bernese.  
Example: {X:\INX\EXAMPLE.TRN}  
RECOMMENDED VALUES: Iers bulletins : IER  
Rcvr/ant.name translation tables: TRN

Path to the Datasets:  
Specify the path where the menu system will find the corresponding  
files.  
RECOMMENDED VALUES: X:\GEN\

Input Files:	Path	Extension
<b>N-,I-,F-FILES:</b>		
The first entry field specifies the path to the three major program input files. If you need the menu system you never have to modify these files (see manual for more information).		
The second entry field contains the extension of these input files.		
RECOMMENDED VALUES: path U:\INP\ and extension INP		
<b>SKELETON FILES:</b>		
The first entry field specifies the path to the skeleton files of the major program input files (see above). The skeleton files are used to create the input files (see manual for more information).		
The second entry field contains the extension of these skeleton files.		
RECOMMENDED VALUES: path X:\SKL\ and extension SKL		
<b>PANEL UPDATE DIRECTORY LISTS:</b>		
The first entry field specifies the path to the directory list files. Such a file is used to define a list of directories in which panels have to be updated using menu 6.0.		
Example: {X:\INX\EXAMPLE.UPD}		
The second entry field contains the extension of these update files.		
RECOMMENDED VALUES: path X:\SKL\ and extension UPD		
<b>Auxiliary Files (Scratch Files):</b>		
The first entry field specifies the path to temporary used files. These files are created and deleted during program runs.		
The second entry field specifies the extension of these scratch files.		
RECOMMENDED VALUES: path U:\WORK\ and extension SCR		
<b>Error Message File (Full Name):</b>		
Specify the path and name of the error message file. If an error happens during a program run (interactive only) then this error message will be written to this file. After the program stops you can read and delete this file using the command ERRDEL.		
RECOMMENDED VALUES: U:\WORK\ERROR.MSG		

SF

0.3-2	DEFAULTS: OBSERVATION DATAFILES		
<b>Code:</b>	<b>Extension</b>		<b>Extension</b>
HEADERS	> CZH <	OBSERVATIONS	> CZO <
S.DIFF. HEADERS	> CSH <	S.DIFF. OBSERVATIONS	> CSO <
FORMATTED	> FCO <		
<b>Phase:</b>			
HEADERS	> PZH <	OBSERVATIONS	> PZO <
S.DIFF. HEADERS	> PSH <	S.DIFF. OBSERVATIONS	> PSO <
FORMATTED	> FPH <		
<b>Ranges:</b>			
HEADERS	> CZH <	OBSERVATIONS	> CZO <
FORMATTED	> FCO <		
<b>Path from Campaign Subdirectory to Files</b>			
OBS.FILES	> OBS\		<
RAWDATA (RINEX)	> RAW\		<
ORIGINAL RINEX FILES	> ORX\		<

0.3-2	DEFAULTS: OBSERVATION DATAFILES		HELP
<b>General remark:</b>			
All entry fields of this panel specify extensions of and the paths to the observation files and observation header files.			
RECOMMENDED VALUE: The recommended values are given in brackets. These should NOT be changed by the user.			
<b>Code:</b>	<b>Extension</b>		<b>Extension</b>
HEADERS:	( CZH )	OBSERVATIONS	( CZO )
CZH : Code Zero difference Headers			

## B. Option Panels and Help Panels

<p>CZO : Code Zero difference Observations</p> <p>S.DIFF. HEADERS: ( CSH ) S.DIFF. OBSERVATIONS ( CSO )          CSH : Code Single difference Header          CSO : Code Single difference Observations</p> <p>FORMATTED: ( FCO )          FCO : Formatted COde observation</p> <p>Phase:</p> <p>HEADERS: ( PZH ) OBSERVATIONS ( PZO )          PZH : Phase Zero difference Header          PZO : Phase Zero difference Observation</p> <p>S.DIFF. HEADERS: ( PSH ) S.DIFF. OBSERVATIONS ( PSO )          PSH : Phase Single difference Header          PSO : Phase Single difference Observation</p> <p>FORMATTED: ( FPH )          FPH : Formatted PHase observation</p> <p>Ranges:</p> <p>HEADERS: ( CZH ) OBSERVATIONS ( CZO )          CZH : Zero difference range observation header (SLR)          CZO : Zero difference range observation (SLR)</p> <p>FORMATTED: ( FCO )          FCO : Formatted range observations (SLR)</p> <p>Path from Campaign Subdirectory to Files</p> <p>OBS.FILES:          Specifies the part of the path from the campaign subdirectory to the bernese observation files.          RECOMMENDED VALUE: OBS\</p> <p>RAWDATA (RINEX):          Specifies the part of the path from the campaign subdirectory to the RINEX observation files to be processed.          RECOMMENDED VALUE: RAW\</p> <p>ORIGINAL RINEX FILES:          Specifies the part of the path from the campaign directory to the original RINEX observation files (e.g. before concatenation).          RECOMMENDED VALUE: ORX\</p> <p style="text-align: right;">SF</p>
---

0.3-3	DEFAULTS: ORBIT DATASET EXTENSIONS		
<p>Orbits:</p> <p>BROADCAST EPHEMERIS &gt; BRD &lt; TABULAR ORBITS &gt; TAB &lt;          STANDARD ORBITS &gt; STD &lt; RAD.PRESSURE COEFF. &gt; RPR &lt;          ORBITAL ELEMENTS &gt; ELE &lt; PRECISE EPHEMERIS &gt; PRE &lt;</p> <p>Orbit files in ASCII:</p> <p>STANDARD ORBITS &gt; FSO &lt; RAD.PRESSURE COEFF. &gt; FRP &lt;</p> <p>Path from Campaign Subdirectory to Files</p> <p>ALL ORBIT FILES &gt; ORB\ &lt;</p>			

0.3-3	DEFAULTS: ORBIT DATASET EXTENSIONS	HELP
<p>General remark:          All entry fields of this panel specify extensions of and the path to orbit files.</p>		



RECOMMENDED VALUE: The recommended values are given in brackets. These should NOT be changed by the user.

Orbits:

BROADCAST EPHEMERIS: ( BRD )            TABULAR    ORBITS            ( TAB )  
 BRD : BRoadCast ephemerides  
 TAB : TABular orbits

STANDARD ORBITS:            ( STD )            RAD.PRESSURE COEFF.    ( RPR )  
 STD : STanDard orbits  
 RPR : Radiation PRessure coefficients

ORBITAL ELEMENTS:        ( ELE )            PRECISE    EPHEMERIS        ( PRE )  
 ELE : orbital ELEments  
 PRE : PREcise ephemerides

Orbit files in ASCII:

STANDARD ORBITS:            ( FSO )            RAD.PRESSURE COEFF.    ( FRP )  
 FSO : Formatted Standard Orbits  
 FRP : Formatted Radiation Pressure coefficients

Path from Campaign Subdirectory to Files

ALL ORBIT FILES:  
 Specifies the part of the path from the campaign directory to the orbit files.  
 RECOMMENDED VALUE:    ORB\

SF

0.3-4	DEFAULTS: MISCELLANEOUS DATASETS		
Miscellaneous:	Extension	Path fm Campaign Subdir to File	
COORDINATES	> CRD <	> STA\	<
STATION VELOCITIES	> VEL <	> STA\	<
STATION ECCENTERS	> ECC <	> STA\	<
STATION NAME TRANSL.	> STN <	> STA\	<
ANTENNA HEIGHT TRANS.	> HTR <	> STA\	<
BASELINE DEFINITIONS	> BSL <	> STA\	<
CLUSTER DEF. INPUT	> CLU <	> STA\	<
CLUSTER DEF. OUTPUT	> CLB <	> STA\	<
SPECIAL FIXED STAT FILE	> FIX <	> STA\	<
SPECIAL STATION FTP FILE	> FTP <	> STA\	<
TROPOSPHERE APRIORI SIGMA	> SIG <	> STA\	<
REC. ANT. ORIENTATIONS	> AZI <	> STA\	<
METEO DATA	> MET <	> ATM\	<
TROPOSPHERE PARAMETERS	> TRP <	> ATM\	<
IONOSPHERE MODELS	> ION <	> ATM\	<
IONOSPHERE MAPS (IONEX)	> INX <	> ATM\	<
REC./SAT. CLOCKS	> CLK <	> ORB\	<
RESIDUALS	> RES <	> OUT\	<
PROGRAM OUTPUT	> OUT <	> OUT\	<
COVARIANCES	> COV <	> OUT\	<
NORMAL EQUATIONS	> NEQ <	> OUT\	<
OUTPUT FILES	> LST <	> OUT\	<
PLOT FILES	> PLT <	> OUT\	<
EARTH ROTATION PARAMETERS	> ERP <	> OUT\	<
IERS FORMAT ERP FILE	> IEP <	> OUT\	<
SINEX FORMAT (CRD,VEL,ERP)	> SNX <	> OUT\	<
COVARIANCE COMPONENTS	> WGT <	> OUT\	<
SATMARK EDIT INFO FILE	> EDT <	> OUT\	<
LIST OF FILE TO DELETE	> DEL <	> OUT\	<
SUMMARY OUTPUT FILE	> SUM <	> OUT\	<
JOB OUTPUT SUMMARIES	> SMC < > SME <	> OUT\	<
JOB OUTPUT FILES		> OUT\	<

0.3-4	DEFAULTS: MISCELLANEOUS DATASETS	HELP

## B. Option Panels and Help Panels

---

General remark:  
All entry fields of this panel specify extensions of and the path to miscellaneous file types. Only the path from the campaign directory to the directory containing the miscellaneous files is specified.  
RECOMMENDED VALUE: The recommended values are given in brackets. These should NOT be changed by the user.

Miscellaneous:                    Extension

COORDINATES:                    ( CRD )  
CRD : station CoorDinates  
Recommended path: STA\  
Example: {X:\INX\EXAMPLE.CRD}

STATION VELOCITIES:            ( VEL )  
VEL : VELOCities of stations  
Recommended path: STA\  
Example: {X:\INX\EXAMPLE.VEL}

STATION ECCENTERS:             ( ECC )  
ECC : station ECCentricities  
Recommended path: STA\  
Example: {X:\INX\EXAMPLE.ECC}

STATION NAME TRANSL.:         ( STN )  
STN : Station Name translation table  
Recommended path: STA\  
Example: {X:\INX\EXAMPLE.STN}

ANTENNA HEIGHT TRANS.:        ( HTR )  
HTR : antenna Height Translation table  
Recommended path: STA\  
Example: {X:\INX\EXAMPLE.HTR}

BASELINE DEFINITIONS:         ( BSL )  
BSL : BaSeLine definitions  
Recommended path: STA\  
Example: {X:\INX\EXAMPLE.BSL}

CLUSTER DEF. INPUT:            ( CLU )  
CLU : input definition of CLUstered baselines  
Recommended path: STA\  
Example: {X:\INX\EXAMPLE.CLU}

CLUSTER DEF. OUTPUT:          ( CLB )  
CLB : output definition of CLUstered Baselines  
Recommended path: STA\  
Example: {X:\INX\EXAMPLE.CLB}

SPECIAL FIXED STAT FILE:      ( FIX )  
FIX : file containing the FIXed stations  
Recommended path: STA\  
Examples: {X:\INX\EXAMPLE.FIX},  
          {X:\INX\EXAMPLE1.FIX}

SPECIAL STATION FTP FILE:     ( FTP )  
FTP : file containing FTP information  
Recommended path: STA\  
Example: {X:\INX\EXAMPLE.FTP}

TROPOSPHERE APRIORI SIGMA:( SIG )  
SIG : troposphere a priori SIGma (constraints)  
Recommended path: STA\  
Example: {X:\INX\EXAMPLE.SIG}

REC. ANT. ORIENTATIONS:       ( AZI )  
AZI : receiver antenna orientation AZImuth  
Recommended path: STA\  
Example: {X:\INX\EXAMPLE.AZI}

METEO DATA:                    ( MET )  
MET : METeo data files  
Recommended path: ATM\  
Examples: {X:\INX\EXAMPLE1.MET},  
          {X:\INX\EXAMPLE2.MET},  
          {X:\INX\EXAMPLE3.MET}

```

TROPOSPHERE PARAMETERS: ( TRP )
  TRP : files containing TROposphere Parameters
  Recommended path: ATM\
  Example: {X:\INX\EXAMPLE.TRP}

IONOSPHERE MODELS: ( ION )
  ION : IONosphere model files
  Recommended path: ATM\
  Examples: {X:\INX\EXAMPLE1.ION},
            {X:\INX\EXAMPLE2.ION}

IONOSPHERE MAPS (IONEX): ( INX )
  INX : ionosphere maps in IoNeX format
  Recommended path: ATM\
  Example: {X:\INX\EXAMPLE.INX}

REC./SAT. CLOCKS: ( CLK )
  CLK : receiver and satellite CLoCK information files
  Recommended path: ORB\
  Examples: {X:\INX\EXAMPLE1.CLK},
            {X:\INX\EXAMPLE2.CLK}

RESIDUALS: ( RES )
  RES : RESidual files
  Recommended path: OUT\

PROGRAM OUTPUT: ( OUT )
  OUT : program OUTput files
  Recommended path: OUT\

COVARIANCES: ( COV )
  COV : variance COVariance information
  Recommended path: OUT\
  Example: {X:\INX\EXAMPLE.COV}

NORMAL EQUATIONS: ( NEQ )
  NEQ : Normal EQUation files
  Recommended path: OUT\

OUTPUT FILES: ( LST )
  LST : Special program output files
  Recommended path: OUT\

PLOT FILES: ( PLT )
  PLT : PLoT files
  Recommended path: OUT\

EARTH ROTATION PARAMETERS:( ERP )
  ERP : Earth Rotation Parameter files
  Recommended path: OUT\
  Example: {X:\INX\EXAMPLE.ERP}

IERS FORMAT ERP FILE: ( IEP )
  IEP : Iers-format Earth rotation Parameter
  Recommended path: OUT\
  Example: {X:\INX\EXAMPLE.IEP}

SINEX FORMAT (CRD,VEL,ERP): ( SNX )
  SNX : output files in SiNeX format
  Recommended path: OUT\

COVARIANCE COMPONENTS: ( WGT )
  WGT : covariance components that are need to compute the WeiGhTed
        rms of station coordinates
  Recommended path: OUT\
  Example: {X:\INX\EXAMPLE.WGT}

SATMARK EDIT INFO FILE: ( EDT )
  EDT : EDit (log-) file created by the program satmrk
  Recommended path: OUT\
  Example: {X:\INX\EXAMPLE.EDT}

LIST OF FILE TO DELETE: ( DEL )
  DEL : list of files to DELeTe
  Recommended path: OUT\
  Example: {X:\INX\EXAMPLE.DEL}

```

## B. Option Panels and Help Panels

```

SUMMARY OUTPUT FILE:      ( SUM )
SUM : files containing a program output SUMmary
Recommended path:  OUT\
Examples: {X:\INX\EXAMPLE1.SUM},
          {X:\INX\EXAMPLE2.SUM},
          {X:\INX\EXAMPLE3.SUM},
          {X:\INX\EXAMPLE4.SUM},
          {X:\INX\EXAMPLE5.SUM},
          {X:\INX\EXAMPLE6.SUM},
          {X:\INX\EXAMPLE7.SUM},
          {X:\INX\EXAMPLE8.SUM}

JOB OUTPUT SUMMARIES: ( SMC ) ( SME )
SMC : codspp Summary file of geocentric Coordinates (x,y,z)
SME : codspp Summary file of Ellipsoidal coordinates
Recommended path:  OUT\
Examples: {X:\INX\EXAMPLE.SMC},
          {X:\INX\EXAMPLE.SME}

JOB OUTPUT FILES:
Path to the program-specific job output files named pgmnam.Lxx or
pgmnam.xxx.
Recommended path:  OUT\
    
```

SF

0.3-5	DEFAULTS: BPE GENERAL DATASETS
<p>Process Control Files:</p> <p>PATH TO PCF FILES &gt; U:\PCF\ &lt; PCF FILE EXTENSION &gt; PCF &lt;</p>	
<p>Process Scripts:</p> <p>PATH TO USER SCRIPTS &gt; U:\SCRIPT\ &lt; SCRIPT EXTENSION &gt; BAT &lt;</p>	
<p>Panel Set Directory Starting Path:</p> <p>PATH TO PANEL SETS &gt; U:\OPT\ &lt;</p>	
<p>CPU and Queue selection:</p> <p>CPU FILE NAME &gt; U:\WORK\PCFCTL.CPU &lt;</p>	

0.3-5	DEFAULTS: BPE GENERAL DATASETS	HELP
<p>General remark:</p> <p>All entry fields in this panel specify the paths to and the extensions of files specific to the Bernese Processing Engine (BPE). The recommended values should NOT be changed by the user.</p>		
<p>Process Control Files:</p> <p>PATH TO PCF FILES: PCF FILE EXTENSION</p> <p>PCF : Process Control Files</p> <p>RECOMMENDED VALUE : for the path U:\PCF\ for the extension: PCF</p>		
<p>Process Scripts:</p> <p>PATH TO USER SCRIPTS: SCRIPT EXTENSION</p> <p>RECOMMENDED VALUE : for the path: U:\SCRIPT\ for the extension: COM (VMS), blank (UNIX), BAT (DOS)</p>		
<p>Panel Set Directory Starting Path:</p> <p>PATH TO PANEL SETS:</p> <p>Path the to panel sets used by BPE.</p> <p>RECOMMENDED VALUE: U:\OPT\</p>		
<p>CPU and Queue selection:</p>		

*B.2 Option and Help Panels for Menu 0 (Defaults)*

<p>CPU FILE NAME:  Name of the file containing the information on how to distribute the different program runs on different machines (CPU's).  RECOMMENDED VALUE: U:\WORK\PCFCTL.CPU</p>	SF
--	----

0.3-6	DEFAULTS: BPE MISCELLANEOUS DATASETS
<p>Miscellaneous:                    Extension                    Path fm Campaign Subdir to File  BASELINE LIST FILE                    &gt; BSL &lt;                    &gt; STA\                    &lt;</p>	

0.3-6	DEFAULTS: BPE MISCELLANEOUS DATASETS	HELP
<p>Miscellaneous:</p> <p>BASELINE LIST FILE:  The first entry field specifies the extension of the baseline list file. This file is used by the Bernese Processing Engine (BPE).  BSL : BaSeline List file  The second entry field specifies the path from the campaign directory to the baseline list file.  RECOMMENDED VALUE: Extension of Baseline list file: BSL  Path to Baseline list file:                    STA\</p>		
		SF

0.4-1	DEFAULTS: FTP SCRIPT NAMES
<p>FTP Scripts:</p> <p>DOWNLOAD IGS RINEX DATA                    &gt; FTPRNX                    &lt;  DOWNLOAD IGS PRECISE ORBITS                    &gt; FTPORB                    &lt;  DOWNLOAD CODE STATION INFO                    &gt; FTPSTA                    &lt;  DOWNLOAD CODE SATELLITE INFO                    &gt; FTPSAT                    &lt;  DOWNLOAD CODE POLE INFO                    &gt; FTPPOL                    &lt;</p> <p>Path to the Scripts                    &gt; X:\EXE\                    &lt;</p>	

0.4-1	DEFAULTS: FTP SCRIPT NAMES	HELP
<p>General remark:  The entry fields in this panel specify names of the scripts/command files used to ftp observation, ephemeris, or other data files from global data centers or analysis centers.</p> <p>FTP Scripts:</p> <p>DOWNLOAD IGS RINEX DATA:  Specifies the name of the script to automatically download RINEX files of IGS stations from the global data centers.  RECOMMENDED VALUE: FTPRNX</p> <p>DOWNLOAD IGS PRECISE ORBITS:  Specifies the name of the script to automatically download IGS precise orbit files.  RECOMMENDED VALUE: FTPORB</p> <p>DOWNLOAD CODE STATION INFO:  Specifies the name of the script to automatically download CODE station information files.</p>		

*B. Option Panels and Help Panels*

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<p>RECOMMENDED VALUE: FTPSTA</p> <p>DOWNLOAD CODE SATELLITE INFO:          Specifies the name of the script to automatically download CODE satellite information.          RECOMMENDED VALUE : FTPSAT</p> <p>DOWNLOAD CODE POLE INFO:          Specifies the name of the script to automatically download CODE pole information (ERP's).          RECOMMENDED VALUE: FTPPOL</p> <p>Path to the Scripts:          The path where the menu system will find the corresponding scripts/command files.          RECOMMENDED VALUES: X:\EXE\</p>	SF
---	----

0.4-2	DEFAULTS: BPE SCRIPT NAMES
<p>BPE Scripts:</p> <p>PROCESS CONTROL SCRIPT                    &gt; PCS                    &lt;</p> <p>Path to the Scripts                         &gt; X:\EXE\                         &lt;</p>	

0.4-2	DEFAULTS: BPE SCRIPT NAMES	HELP
<p>BPE Scripts:</p> <p>PROCESS CONTROL SCRIPT:          Specifies the name of the process control script (command file) used by the Bernese Processing Engine.          RECOMMENDED VALUE: PCS</p> <p>Path to the Scripts:          Path to this process control script.          RECOMMENDED VALUES: X:\EXE\</p>		
		SF

0.9-7	DEFAULTS: WD2PWV PROGRAM NAMES
<p>Transformation of Wet Delay to PWV:</p> <p>TRANSFORM WET DELAY FILES               &gt; WD2PWV &lt;</p> <p>Path to the Programs                       &gt; C:\BERN40\PGM\MAIN40\EXP\ &lt;</p>	

0.9-7	DEFAULTS: WD2PWV PROGRAM NAMES	HELP
<p>Transformation of Wet Delay to PWV:</p> <p>TRANSFORM WET DELAY FILE:          Specifies the program you use to transform troposphere wet delay data into precipitable water vapor (PWV).          RECOMMENDED VALUES: WD2PWV</p>		

Path to the Programs

Specifies the path where the menu systems looks for this program.

RECOMMENDED VALUES: C:\BERN40\PGM\MAIN40\EXP\

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### B.3 Option and Help Panels for Menu 1 (Campaigns)

1-1	CAMPAIGNS: DEFINITION OF NAMES				
	Campaign	Start Date	End Date	Path	Comments
	> EUROCLUS <	> 13-JUN-96 <	> 14-JUN-96 <	> X:\ <	> BPE DEMO CAMPAIGN <

1-1	CAMPAIGNS: DEFINITION OF NAMES				HELP
	Campaign	Start Date	End Date	Path	Comments
	> EUROCLUS <	> 13-JUN-96 <	> 14-JUN-96 <	> X:\ <	> BPE DEMO CAMPAIGN <
	<p>This panel contains the basic campaign definitions that are used by the menu system to work with campaigns. This information is used by all menu and processing programs.</p> <p>It is absolutely necessary to have one entry per campaign in this table. The first field contains the name of the campaign. The value of this field has to be unique (it is not permitted to have to different campaigns using the same name). The campaign name serves as name for the campaign directory. Only characters valid in directory names may therefore be used for the campaign name.</p> <p>The second and the third field contain the starting and the end date of the campaign. These two fields are not used by the menu system and are therefore not mandatory.</p> <p>The fourth field contains the beginning of the path to the campaign directory. The logicals (VMS), substitutions (DOS), or environment variables (UNIX) used to make the path to the campaign directory very short are defined in the LOADGPS procedure. Different such path abbreviations may be used pointing to different disks or disk areas.</p> <p>The last field is reserved for a comment of your choice.</p> <p>To display the help panel describing the keys that are used to e.g. duplicate or delete lines in this campaign table, press the F1 key (help key).</p>				
	SF				

1.2	CAMPAIGNS: CREATE SUBDIRECTORIES		Selection of the Campaign
	CAMPAIGN	>	< (blank for selection list)

1.2	CAMPAIGNS: CREATE SUBDIRECTORIES		Selection of the Campaign	HELP
	<p>This panel gives you a list of campaign-specific directories (subdirectories of the campaign directory to be created for the processing of a campaign. You may add, delete, or change the directories shown in this list. The menu system then automatically creates the directories according to the updated list.</p> <p>RECOMMENDED VALUE: Keep the directory names and the directories as proposed in the list.</p>			
	SF			

1.3-1	CAMPAIGNS: SESSION DEFINITION		Selection of the Campaign
	CAMPAIGN	>	< (blank for selection list)



1.3-1	CAMPAIGNS: SESSION DEFINITION	Selection of the Campaign	HELP
<p>General Remark:          A campaign consists of one or more sessions that together cover the total observation interval. Since the Bernese GPS Software uses a session-wise processing strategy you have to define at least one session. The session definitions are used e.g. to generate the names of observation files, to concatenate/extract orbit information for the time interval of a session, to define the orbit arc length, or to set up a user-specified number of troposphere delay parameter for the session(s) to be processed.</p>			
			SF

1.3-2	CAMPAIGNS: SESSION DEFINITION		
SESSION NUMBER	START DATE	END DATE	
nnnn	yy mm dd hh mm ss	yy mm dd	hh mm ss
> ???0 <	>	< > 00 00 00 <	> < > 23 59 59 <

1.3-2	CAMPAIGNS: SESSION DEFINITION	HELP	
SESSION NUMBER	START DATE	END DATE	
nnnn	yy mm dd hh mm ss	yy mm dd	hh mm ss
Example:			
> 2431 <	> 94 08 31 <	> 00 00 00 <	> 94 08 31 < > 23 59 59 <
<p>The first field defines the 4-character (old: 3-character) session identifier. Any alphanumeric characters may be used in the identifier and the length of the session identifier may be 3 or 4 characters, although 4-character session identifiers are the standard now. You have to make sure, in any case, that you specify the correct length of the session identifier in the option panels for the programs RXOBV3 (menu 2.7.1) and SNGDIF (menu 4.3) (see {DAT2711_.PAN LENGTH OF SESSION} and {DAT431_.PAN LENGTH OF SESSION} respectively).</p> <p>The second and the third fields define the session starting date and time in UT.</p> <p>The format for the date is: yy mm dd          where yy = year mm = month dd = day of month</p> <p>The format for the time is: hh mm ss          where hh = hour mm = minute ss = second</p> <p>The fourth and the last fields define the session end date and time using exactly the same format as given above.</p> <p>To get information on how to duplicate or delete lines in the session table, press the F1 key (help key).</p> <p>There are two different possibilities to define sessions:</p> <ol style="list-style-type: none"> <li>1) using explicit session numbers</li> <li>2) using wildcards</li> </ol> <p>1) Defining sessions using explicit session numbers:</p> <ul style="list-style-type: none"> <li>- You may name the session according to your choice. The session naming convention we recommend is: use the first three digits for the day of year (DOY) of the start time of the session and the last digit to identify the session number within the day.</li> <li>- You have to define both, the start and end date and time of the session.</li> <li>- The set of sessions you define must cover the full time span of your observation data.</li> <li>- An example for a campaign with 3 24-hour sessions is given below.</li> </ul>			

```

                These sessions always begin at midnight and end one second
                before the end of the day:

> 2431 <          > 94 08 31 < > 00 00 00 < > 94 08 31 < > 23 59 59 <
> 2441 <          > 94 08 31 < > 00 00 00 < > 94 09  1 < > 23 59 59 <
> 2451 <          > 94 09 01 < > 00 00 00 < > 94 09  2 < > 23 59 59 <

2) Defining sessions using wildcards:
- You have to use the following format ???x where x is a character
  or a digit in [0..9,A..Z] e.g ???A . The menu system will then
  replace the wildcard characters by the corresponding DOY.
- You only define the start and end time of the session in this case.
  Leave the starting and end date blank.
- The set of sessions you define are valid for any DOY.
  If the session end time is smaller than the corresponding starting
  time, the session will continue over midnight and end the next
  day.
- The following example defines three sessions of 8 hours each.
  The wildcard ??? will be replaced by the day of year (DOY)
  actually processed. Using these values the menu system that the
  same session definition is valid for any day of the year.

> ???A <          >          < > 00 00 00 < >          < > 07 59 59 <
> ???B <          >          < > 08 00 00 < >          < > 15 59 59 <
> ???C <          >          < > 16 00 00 < >          < > 23 59 59 <

A general remark concerning the session definition has to be added:
- do not merge explicit and wildcard session definitions.
- if possible, sessions intervals should not overlap.
    
```

SF

1.4.1	CREATE/UPDATE COORDINATE FILE
CAMPAIGN	> < (blank for selection list)
OPTION	> C < (C: Create ; U: Update)
Output File: COORDINATES	> APRIORI < (blank for selection list (Option U) )

1.4.1	CREATE/UPDATE COORDINATE FILE	HELP
<p>General remark: This menu program helps you to manually create or update a station coordinate file. An example of a coordinate file is given in {X:\INX\EXAMPLE.CRD}.</p> <p>OPTION Specify whether you want to create (C) a new coordinate file or just update (U) an old coordinate file.</p> <p>Output File: COORDINATES: If you select option C (create) you have to specify the name of the new station coordinate file (without extension). If you select option U (update) you have two possibilities: a) leave this filed blank: The menu system will show you a selection list of existing coordinate files. You may then select the file you want to update. b) directly enter the name of the coordinate file you want to modify.</p>		

SF

1.4.2	CREATE/UPDATE STATION NAME TRANSLATION TABLE		
CAMPAIGN	>	<	(blank for selection list)
OPTION	> U <		(C: Create ; U: Update)
Input File: COORDINATES	> NO	<	(blank for selection list, NO: not to be used)
Input/Output File: TRANSLATION TABLE	> ITRFCODE	<	(blank for selection list (option U))

1.4.2	CREATE/UPDATE STATION NAME TRANSLATION TABLE	HELP
<p>General Remark:</p> <p>This program helps you to create or update a station name translation table. Such a table may be used to transform e.g. differently written versions of a station name to a well defined name when transferring RINEX files to Bernese (menu 2.7.1). If ZIMM95, ZIMMGPS, and ZIMMERWALD are names used in the RINEX headers for the same station then you may define a translation table with an entry:</p> <pre>ZIMM*      ZIMMERWALD</pre> <p>All the station names given in the RINEX files beginning with ZIMM* will then be converted to ZIMMERWALD (if this station name translation table is specified in menu 2.7.1, panel {DAT271__}). Example of a station name translation table: {X:\INX\EXAMPLE.STN}.</p> <p>OPTION:</p> <p>Specify whether you want to create (C) or update (U) a station name translation table.</p> <p>Input File:</p> <p>COORDINATES:</p> <p>If you specify a coordinate file, the station names in this coordinate file will be used as "new names" in the station translation table to be created/updated, i.e. the names to which the station names in the RINEX headers will be translated to.</p> <p>If you leave this field blank then the menu system will show a list of files you may select as coordinate input file.</p> <p>If you specify a file name, the menu system will directly use this file without showing a selection list.</p> <p>If you specify NO then the menu system will not use a coordinate file.</p> <p>Input/Output File:</p> <p>TRANSLATION TABLE:</p> <p>If you specified the option C (Create) above, you have to give the name of the new station name translation table you want to create.</p> <p>If you specified the option U (Update), you have two possibilities:</p> <ol style="list-style-type: none"> <li>leave this field blank: The menu system will show you a selection list of possible station name translation files. You may then select one of these files.</li> <li>enter the name of a station name translation table. The menu system then display this file to you for the update.</li> </ol>		
SF		

1.4.3	CREATE/UPDATE STATION ABBREVIATION TABLE		
CAMPAIGN	>	<	(blank for selection list)
Input File: COORDINATES	> NO	<	(blank for selection list) NO for Info/Delete/Change

1.4.3	CREATE/UPDATE STATION ABBREVIATION TABLE	HELP
<p>General Remarks:</p> <p>This program helps you to create or update a station name abbreviation table containing 4-character and 2-character abbreviations of all the station names available in a coordinate file. The table of abbreviations is saved in the campaign-specific panel DAT143__.PAN in the directory [campaign.DATPAN] (example: {X:\INX\DAT143__.PAN}). The station name abbreviations are important for the programs RXQBV3 (menu 2.7.1) and SNGDIF (menu 4.3) to generate observation file names. The 4-character station name abbreviations are used to generate the zero-difference observation file names and the 2-character station name abbreviations for the generation of single-difference observation file names. When you run the program RXQBV3 (menu 2.7.1: transfer of RINEX observation files to Bernese observation files) the menu system will automatically create 2- and 4-character station name abbreviations, unless these abbreviations already exist in the abbreviation table. Therefore, you only need to create an abbreviation table, if you want to use your own abbreviations (and not those that will be automatically created).</p> <p>Input File:</p> <p>COORDINATES:</p> <p>If you specify a coordinate file, the menu system will propose you a list of possible 4- and 2-character station name abbreviations derived from the station names given in the coordinate file you specified above. You have two possibilities to set this field:</p> <ul style="list-style-type: none"> <li>a) leave this field blank: The menu system will show you a selection list of possible coordinate files. You may then select one of these files.</li> <li>b) enter the name of a coordinate file. The menu system will then automatically use this file to propose a set of abbreviations.</li> </ul> <p>If you want to delete, change or check the abbreviations you have to select NO. Otherwise the menu system will overwrite the old definitions.</p> <p style="text-align: right;">SF</p>		

1.4.4	CREATE/UPDATE STATION ECCENTRICITY FILE	
CAMPAIGN	> <	(blank for selection list)
OPTION	> L <	(G: Create in Geocentric X/Y/Z L: Create in Local North/East/Up U: Update Existing File)
<p>Input File:</p> <p>COORDINATES &gt; &lt; (blank for selection list, NO: not to be used)</p>		
<p>Input/Output File:</p> <p>ECCENTRICITIES &gt; ECCENT &lt; (blank for selection list (option U))</p>		

1.4.4	CREATE/UPDATE STATION ECCENTRICITY FILE	HELP
<p>General Remark:</p> <p>This program helps you to create or update a station eccentricity file. Such a file contains the eccentricity vectors from station markers to antenna ground markers. Example: {X:\INX\EXAMPLE.ECC}.</p> <p>OPTION:</p> <p>You may choose between the following options:</p>		

G: To create a station eccentricity file with values given in a geocentric reference frame (DX,DY,DZ coordinates).  
 L: To create a station eccentricity file with values given in a local reference frame (North/East/Up coordinates).  
 U: To update an existing station eccentricity file.

Input File:

COORDINATES:  
 If you specify a coordinate file, the information in the coordinate file (e.g. the station names, station numbers) will be used to support the creation of the eccentricity files.  
 If you want to use a coordinate file, you have two possibilities:  
 a) leave this field blank: The menu system will show you a selection list of possible coordinate files. You may then select one of these files.  
 b) enter the name of a coordinate file. The menu system will then use this file to propose entries to the eccentricity file.  
 If you do not want to use a coordinate file, then specify NO.

Input/Output File:

ECCENTRICITIES:  
 If you specify option G or L (create), you have to enter the name of the new station eccentricity file to be created in this field.  
 If you specify option U (update) you have two possibilities:  
 a) leave this field blank: The menu system will show you a selection list of possible eccentricity files. You may then select one of these files.  
 b) enter the name of the eccentricity file to be updated.

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1.4.5	CREATE/UPDATE RECEIVER/ANTENNA TRANSLATION TABLE
<p>Input File:                  TRANSLATION TABLE &gt; NO &lt; (NO: not used)</p> <p>Output File:                  TRANSLATION TABLE &gt; RECANT &lt; (blank: same as input file)</p>	

1.4.5	CREATE/UPDATE RECEIVER/ANTENNA TRANSLATION TABLE	HELP																	
<p>General Remark:                  Program to create or update a receiver/antenna name translation table. An example of such a table is given in {X:\INX\EXAMPLE.TRN}. The receiver/antenna name translation table is used by the program RXOBV3 (menu 2.7.1) to translate the names given in the RINEX file headers to the names you want to have in the Bernese observation file headers.                  Example: if you use the translation table given here</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">OLD RECEIV. TYPE</th> <th style="text-align: left;">OLD ANTENNA TYPE</th> <th style="text-align: left;">NEW RECEIV. TYPE</th> <th style="text-align: left;">NEW ANTENNA TYPE</th> </tr> </thead> <tbody> <tr> <td>*4000*SSE</td> <td>*4000*SSE</td> <td>TRIMBLE 4000SSE</td> <td>4000ST L1/L2 GEOD</td> </tr> </tbody> </table> <p>then all the following receiver/antenna names in the RINEX headers will be translated to "TRIMBLE 4000SSE 4000ST L1/L2 GEOD":</p> <table style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td>TRIMBLE 4000SSE</td> <td>TRIMBLE 4000SSE</td> <td></td> </tr> <tr> <td>TRIMBLE 4000 SSE</td> <td>TRIMBLE 4000 SSE</td> <td></td> </tr> <tr> <td>4000 SSE</td> <td>TRIMBLE 4000 SSE</td> <td style="text-align: right;">etc.</td> </tr> </tbody> </table> <p>See also {DAT271__} for additional information.</p> <p>Input File:                  TRANSLATION TABLE:</p>			OLD RECEIV. TYPE	OLD ANTENNA TYPE	NEW RECEIV. TYPE	NEW ANTENNA TYPE	*4000*SSE	*4000*SSE	TRIMBLE 4000SSE	4000ST L1/L2 GEOD	TRIMBLE 4000SSE	TRIMBLE 4000SSE		TRIMBLE 4000 SSE	TRIMBLE 4000 SSE		4000 SSE	TRIMBLE 4000 SSE	etc.
OLD RECEIV. TYPE	OLD ANTENNA TYPE	NEW RECEIV. TYPE	NEW ANTENNA TYPE																
*4000*SSE	*4000*SSE	TRIMBLE 4000SSE	4000ST L1/L2 GEOD																
TRIMBLE 4000SSE	TRIMBLE 4000SSE																		
TRIMBLE 4000 SSE	TRIMBLE 4000 SSE																		
4000 SSE	TRIMBLE 4000 SSE	etc.																	

## B. Option Panels and Help Panels

Specify the name of the file you want to update.  
Type NO to create a new receiver/antenna name translation table.

Output File:

TRANSLATION TABLE:

Specify the name of the file where you want to save the new values.  
If you want to save the changes to the same file as the input file  
(update) then you may leave this field blank.

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### 1.5.1 PROCESSING: FILENAME PARAMETERS FOR AUTOMATIC PROCESSING

Station Parameters:

\$STATION1 > ZIMMERWALD < \$STATION2 > <  
(\$i will be set to 2-char station abbrev, \$STi to 4-char abbrev)

4-character Parameters:

\$CD1 > < \$CD2 > <  
\$CD3 > < \$CD4 > <

3-character Parameters:

\$D1 > < \$D2 > <  
\$D3 > < \$D4 > <

2-character Parameters:

\$M > < \$O > < \$T > <  
\$U > < \$V > < \$W > <  
\$X > < \$Y > < \$Z > <

6-character Session Parameters (+ - allowed):

\$JRSS1 > < \$JRSS2 > <  
\$JRSS3 > < \$JRSS4 > <  
\$JRS+1 > < \$JRS-1 > <  
\$JRS+2 > < \$JRS-2 > <

5-character Session Parameters (+ - allowed):

\$JRD1 > < \$JRD2 > <  
\$JRD3 > < \$JRD4 > <  
\$JD+1 > < \$JD-1 > <  
\$JD+2 > < \$JD-2 > <  
  
\$GDY1 > < \$GDY2 > <  
\$GD+1 > < \$GD-1 > <  
\$GD+2 > < \$GD-2 > <

4-character Session Parameters (+ - allowed):

\$SS1 > < \$SS2 > <  
\$SS3 > < \$SS4 > <  
\$S+1 > < \$S-1 > <  
\$S+2 > < \$S-2 > <  
  
\$GW1 > < \$GW2 > <  
\$G+1 > < \$G-1 > <  
\$G+2 > < \$G-2 > <

### 1.5.1 PROCESSING: FILENAME PARAMETERS FOR AUTOMATIC PROCESSING HELP

General Remarks:

All the input fields of this panel specify some sort of  
"place holder" parameters. These parameters can be used to prepare an  
automatic processing: Each time such a parameter name appears  
in a panel input field the name of the parameter will be replaced by  
the corresponding parameter value defined in this panel {DAT151\_\_.PAN}.

Example: Let's have a look at the parameter \$CD1 (the parameter name  
always starts with a \$ character). Let's further assume that  
the value of this parameter (specified in panel DAT151\_\_.PAN)

is "ABCD". If the string \$CD1 appears somewhere in an input field of a panel in the menu system this string will be replaced by the value "ABCD".

Such \$-variables may not be used in ALL panel input fields, but in all fields, where file names have to be specified as well as in the fields asking for a title line and in the panel {DAT031\_\_.PAN} defining general file names.

These \$-variables can be used to prepare a semi-automated processing (e.g. CODCHK, CODSP, MAUPRP, GPSEST ....) of a session. Once you have prepared all the panels using e.g. a \$-variable for the session identification you will not have to change all the panels again when you process another session, but only the setting of the \$-variable in the panel {DAT151\_\_.PAN}.

The Bernese Processing Engine (BPE) makes extensive use of these \$-variables. The BPE, when starting the processing of a specific session, automatically sets most of these parameters. A list of the \$-variables set by the BPE is given below at the end of this help panel.

Station Parameters:

\$STATION1, \$STATION2:

These parameters are mainly used to define station names (e.g. the name of the station to be fixed in GPSEST or of the station to be in the program SNGDIF to form baselines in a star pattern with this as center). The \$-variables \$1 and \$2 will then automatically be set to the 2-character abbreviations of the station name \$STATION1 and \$STATION2 respectively. \$ST1 and \$ST2 will contain the corresponding 4-character abbreviations. The abbreviations are given in the station abbreviation table (example: {X:\INX\DAT143\_\_.PAN}) and may be defined or changed in menu 1.4.3.

REMARK:

- Make sure that the station coordinate file you use contains these stations.
- Make sure that there exist 2- and 4-character abbreviations for these stations.

4-character Parameters:

\$CD1, \$CD2, \$CD3, \$CD4:

These parameters can be used as place-holders for any 4-character string. You may enter more than one 4-character string in these fields. If e.g. you specify the string "2001 2011 2021" in the field \$CD1 and you use "\$CD1" in a file selection field in any panel then all the files with file names \*2001, \*2011, and \*2021 will be selected (the asterisk is interpreted as wildcard character).

RECOMMENDED VALUE: Use these parameters to replace strings containing 4 characters.

3-character Parameters:

\$D1, \$D2, \$D3, \$D4:

These parameters can be used as place-holder for any 3-character string. You may enter more than one 3-character string in these fields.

RECOMMENDED VALUE: Use these parameters to replace strings containing 3 characters.

2-character Parameters:

\$M, \$O, \$T, \$U, \$V, \$W, \$X, \$Y, \$Z:

These parameters can be used as place-holders for any 2-character string. See below what meaning these parameters have in the context of the BPE.

RECOMMENDED VALUE: Use these parameters to replace strings containing 2 characters.

6-character Session Parameters (+ - allowed):

These parameters should be used as place-holders for the specification of year and session in the format "yyssss" (yy=year, ssss=session, e.g. 962001). You may enter more than one 6-character string in these fields. E.g. "962001 962011 962021" could be entered for the variable \$JRSS1 and this variable could then be used in any panel to select files of the three consecutive sessions. Another possibility is the use of "plus" and "minus" specifications in the form "yyssss +n -m", where yy=year, ssss=session, and n and m are integers. Example:

## B. Option Panels and Help Panels

962011 +1 -1 will be equivalent to the three sessions listed in the example above, namely 962001, 962011, and 962021.

### 5-character Session Parameters (+ - allowed):

These parameters should be used as place-holders for the specification of year and day of year in the format "yyddd" (yy=year, ddd=day of year). More than one string of 5 characters may be entered in these fields and "plus" and "minus" specifications are allowed (see above).

### 4-character Session Parameters (+ - allowed):

These parameters should be used as place-holders for the specification of 4-character sessions (\$SSi) and the GPS week (\$GWi). More than one string of 4 characters may be entered in these fields and "plus" and "minus" specifications are allowed (see above).

List of \$-variables set by the BPE (depending on the session to be processed; example: session 1121 of the year 1996 with +- parameters set to +1 -2, one session per day):

Variable	Value	Example
\$D1	Day of the year of the session start time	112
\$M	Month of the session start time	04
\$0	*)	
\$T	Day of the month of the session start time	21
\$U	*)	
\$V	*)	
\$W	*)	
\$X	*)	
\$Y	Year of the session start time	96
\$Z	*)	
\$SS1	Session to be processed (with +- param.)	1121 +1 -1
\$SS2	Session to be processed (w/o +- param.)	1121
\$S+1	Next session (in session table)	1131
\$S+2	Next session but one	1141
\$S-1	Previous session	1111
\$S-2	Previous session but one	1101
\$JRD1	Year and day of the year (with +- param.)	96112 +1 -1
\$JRD2	Year and day of the year (w/o +- param.)	96112
\$JD+1	Year and day of year of next session	96113
\$JD+2	Year and day of year of next but one session	96114
\$JD-1	Year and day of year of previous session	96111
\$JD-2	Year and day of year of prev. but one sess.	96110
\$JRSS1	Year and session (with +- param.)	961121 +1 -1
\$JRSS2	Year and session (w/o +- param.)	961121
\$JRS+1	Year and session of next session	961131
\$JRS+2	Year and session of next but one session	961141
\$JRS-1	Year and session of previous session	961111
\$JRS-2	Year and session of previous but one sess.	961101
\$GW1	GPS week of session (with +- param.)	0850 +1 -1
\$GW2	GPS week of session (w/o +- param.)	0850
\$G+1	GPS week of next session	0850
\$G+2	GPS week of next but one session	0850
\$G-1	GPS week of previous session	0849
\$G-2	GPS week of previous but one session	0849
\$GDY1	GPS week and day of week of session (with)	08500 +1 -1
\$GDY2	GPS week and day of week of session (w/o)	08500
\$GD+1	GPS week and day of next session	08501
\$GD+2	GPS week and day of next but one session	08502
\$GD-1	GPS week and day of previous session	08496
\$GD-2	GPS week and day of previous but one sess.	08495

\*) The variables \$0, \$U, \$V, \$W, \$X, \$Z will be set by the BPE if the variables V\_0, V\_U, ... are specified in the PCF-files.

MR

1.5.2	AUTOMATED PROCESSING: PRE-DEFINE BASELINES		
CAMPAIGN	>	<	(blank for selection list)



### B.3 Option and Help Panels for Menu 1 (Campaigns)

```

OPTION                > C <          (C = Create ; U = Update)

Input File:
COORDINATES          >          <    (blank for selection list,
                                     NO: not to be used)

Input/Output File:
BASELINE DEFINITION > BASLST <    (Option U: blank for selection list)
    
```

1.5.2	AUTOMATED PROCESSING: PRE-DEFINE BASELINES	HELP
<p><b>General Remark:</b>                      This program can be used to generate a so-called baseline definition file containing a list of baselines.                      Baseline definition files may be used by the following programs:                      - by SNGDIF (menu 4.3) to enforce the forming of pre-defined baselines.                      - by COMPAR (menu 5.4.1) to limit the baseline statistics to the baselines listed in this baseline definition file.                      - by ADDNEQ (menu 4.8.1) to limit baseline statistics (repeatability) to the baselines listed in the baseline definition file.                      An example of a baseline definition file: {X:\INX\EXAMPLE.BSL}.</p> <p><b>OPTION:</b>                      With this option you specify whether you want to create (C) a new or update (U) an existing baseline definition file.</p> <p><b>Input File:</b></p> <p><b>COORDINATES:</b>                      If you specify a coordinate file name in this field, the station names given in the coordinate file will be available to you for the definition of the baseline. You may then reference the stations by numbers instead of having to type the full station names.                      If you leave this field blank then the menu system will show a selection list from where you can select the file of your choice.                      If you specify a file name then the menu system will directly use this file without showing a selection list.                      If you specify NO the menu system will not use a coordinate file.</p> <p><b>Input/Output File:</b></p> <p><b>BASELINE DEFINITION:</b>                      If you select option C (create) you have to specify the name of the new baseline definition file.                      If you selected the option U (update), you have two possibilities:                      a) leave this field blank: The menu system will show you a selection list of possible baseline definition files.                      You may then select one of these files.                      b) enter the name of the baseline definition file you want to update.</p>		
		SF

1.5.2-1	PREDEFINITION OF BASELINES: SELECT STATION PAIRS	HELP
<p><b>General Remarks:</b>                      If you specified a coordinate input file you will see the list of stations available in the coordinate file to the left of the panel. You may then use the station numbers in the fields "# 1" and "# 2" instead of having to type the full station name in the fields "STATION 1" and "STATION 2". The menu program will automatically update these columns.                      Press F1 to get help on the keys you may use to repeat or delete lines from the baseline table here.</p>		
		MR

## B. Option Panels and Help Panels

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1.9	CAMPAIGNS: REMOVE SUBDIRECTORIES	Selection of the Campaign
CAMPAIGN > < (blank for selection list)		

1.9	CAMPAIGNS: REMOVE SUBDIRECTORIES	Selection of the Campaign	HELP
<p>General Remark:</p> <p>This utility allows you to remove ALL the data files and directories of a campaign (defined in the campaign table). If you created (manually or using the menu system) some additional campaign-specific subdirectories you will have to add them to the list that will be displayed to you after this panel (see also {DAT12____}). If you work on a multi-user system then please make sure that you have the privileges to delete the corresponding directories. Before the data files and directories are actually deleted you will be asked for a confirmation. Use this utility with care !</p>			
SF			

## B.4 Option and Help Panels for Menu 2 (Transfer)

2.0.1	FTP: RINEX DATA FROM GLOBAL DATA CENTERS		
CAMPAIGN	>	<	(blank for selection list)
Download:			
STATION LIST	>	<	(blank for selection list)
DATA CENTER	>	CDDIS <	(CDDIS, IGN, SIO)
OPTION	>	REPLACE <	(ADD or REPLACE)
Time Interval:			
	yy	ddd	
FROM	>	94 <	> 364 <
	or		
SESSION NUMBER	>	<	YEAR >
			<
Output Files:			
PATH	>	RAW <	(blank for default name)

2.0.1	FTP: RINEX DATA FROM GLOBAL DATA CENTERS	HELP
<p>Download: This program is used to download RINEX files from the global IGS network available at one of the IGS global data centers. The program is, at present, only available on UNIX systems.</p> <p>STATION LIST: Enter the name of a file containing a list of 4-character site identifiers. An example of such a file is {X:\INX\EXAMPLE.FTP}. The 4-character site id should match the first 4 characters of the RINEX file(s) to be downloaded.</p> <p>DATA CENTER: Specify the IGS global data center from which you want to download the RINEX files. To minimize the internet traffic, you should ftp the RINEX data from the nearest global data center.</p> <p>OPTION: If "REPLACE" is set, the RINEX files are downloaded even if a copy already exists in the target directory. The existing version is overwritten. If "ADD" is specified, the program first checks whether the RINEX file has already been downloaded before. The ftp procedure gets the file only, if no local copy exists.</p> <p>Time Interval: The time interval for which you need RINEX data of some IGS sites may be specified in two ways: with the year and day of year of the start and end of the interval or with the session number and the year. Global IGS RINEX files always span 24 hours from 0:00 UT to 23:59:30 UT. Example 1 (time window):</p> <p style="text-align: center;">yy      ddd                      yy      ddd</p> <p>FROM:                      &gt; 94 &lt; &gt; 364 &lt;      TO    &gt; 95 &lt; &gt; 003 &lt;</p> <p>Example 2 (session and year):</p> <p>SESSION NUMBER:    &gt; 3640 &lt;                      YEAR &gt; 94 &lt;</p> <p>Output Files:</p> <p>PATH: Specify the path of the directory (starting at the campaign directory) to which the RINEX files should be written. The default directory is given in {DAT032___.PAN RAWDATA (RINEX)}.</p>		
MR		

2.0.2	FTP: IGS PRECISE ORBIT FILES		
<p>CAMPAIGN            &gt;            &lt;            (blank for selection list)</p> <p>Download Options:</p> <p>ORBIT IDENT.       &gt; IGS &lt;            (IGS, COD, EMR, ESA, GFZ, JPL, NGS, SIO)</p> <p>DATA CENTER       &gt; CDDIS &lt;          (CDDIS, CODE, IGN, SIO)</p> <p>OPTION             &gt; REPLACE &lt;        (ADD or REPLACE)</p> <p>Time Interval:</p> <p>FROM                &gt; yy      ddd            TO        &gt; yy      ddd</p> <p>                     &gt; 94 &lt; &gt; 220 &lt;            &gt; 94 &lt; &gt; 240 &lt;</p> <p>                     or</p> <p>SESSION NUMBER &gt;            &lt;            YEAR   &gt;            &lt;</p> <p>Output Files:</p> <p>PATH                &gt; ORB &lt;            (blank for default name)</p>			

2.0.2	FTP: IGS PRECISE ORBIT FILES	HELP
<p>Download Options:</p> <p>This program (script) is used to download IGS precise orbit files from one of the global data centers of from CODE. Orbits of a specific IGS Analysis Center may also be downloaded. This program is only available on a UNIX system at present.</p> <p>ORBIT IDENT.:</p> <p>Specify the 3-character code (also used as the first 3 characters of the precise orbit file name) of the IGS Analysis Center to get the precise orbits computed by this center by ftp or specify "IGS" to the IGS combined orbits.</p> <p>DATA CENTER:</p> <p>Specify the IGS global data center from which you want to download the precise orbit files. To minimize the internet traffic, you should ftp the precise orbit files from the nearest global data center. Setting "CODE" as data center name, the orbits will be downloaded from the anonymous ftp area at the AIUB.</p> <p>OPTION:</p> <p>If "REPLACE" is set, the precise orbit files are downloaded even if a copy already exists in the target directory. The existing version is overwritten. If "ADD" is specified, the program first checks whether the precise orbit file has already been downloaded before. The ftp procedure gets the file only, if no local copy exists.</p> <p>Time Interval:</p> <p>The time interval for which you need precise orbits may be specified in two ways: with the year and day of year of the start and end of the interval or with the session number and the year. Precise orbit files of the IGS Analysis Centers usually span a time interval of 24 hours (from 0:00 UT to 23:45:00 UT).</p> <p>Example 1 (time window):</p> <p>                     yy      ddd            yy      ddd</p> <p>FROM:               &gt; 94 &lt; &gt; 364 &lt;            TO        &gt; 95 &lt; &gt; 003 &lt;</p> <p>Example 2 (session and year):</p> <p>SESSION NUMBER: &gt; 3640 &lt;            YEAR   &gt; 94   &lt;</p> <p>Output Files:</p> <p>PATH:</p> <p>Specify the path of the directory (starting at the campaign directory)</p>		

to which the precise orbit files should be written. The default directory is given in {DAT033\_\_\_.PAN ALL ORBIT FILES}.

MR

2.5.1.1	Trimble Rawdata Files to RINEX Files (Main Data Panel)	
<p>CAMPAIGN &gt; &lt; (blank for selection list)</p> <p>Rawdata Observation File:</p> <p>FILELIST &gt; &lt; (blank: create list)</p> <p>PATH &gt; X:\EUROCLUS\RAW\ &lt;</p> <p>EXTENSION &gt; &lt;</p> <p>Output Files:</p> <p>SUMMARY FILE EXTENSION &gt; SUM &lt; (blank: don't create)</p>		

2.5.1.1	Trimble Rawdata Files to RINEX Files (Main Data Panel)	HELP
<p>General remarks:</p> <p>With this and the following panels you select the processing options for the program TRRINEX0. The main purpose of this program is the creation of RINEX observation files from Trimble raw data files.</p> <p>The RINEX converter programs also run independently from the Bernese GPS Software. They use as primary options file a file called xxRINEXt.OPT (xx: 2-character program code, TR for Trimble, t: RINEX file type, O=observation, N=navigation) which has to exist in the current or default directory.</p> <p>More informations about the RINEX converter programs can be found in the file PCRINEX.TXT which is distributed together with the converters. The most recent converters (at least the PC executables) can be downloaded from our anonymous ftp account (ubeclu.unibe.ch, cd aiub\$ftp, cd pcrinex).</p> <p>Rawdata Observation File:</p> <p>FILELIST: Full name (i.e. including path) of a file containing a list of the raw data file names (body of filenames plus extensions, no paths!). The list has to be left-justified, one filename per line. If this input field is left blank, the file list will be created interactively. RECOMMENDED VALUE: blank</p> <p>PATH: Path to the raw data files. EXAMPLE: D:\TESTV34\RAW\</p> <p>EXTENSION: Extension of the raw data filenames. Used to generate a selection list for the interactive generation of the file list. RECOMMENDED VALUE: DAT</p> <p>Output Files:</p> <p>SUMMARY FILE EXTENSION: The RINEX converter program may create a summary file, the body of the filename is identical to the RINEX observation filename. It's extension may be selected here. An extension of the form %S will be translated into yyS where yy is the two-digit year. To leave it blank will prevent the program from creating summary files. RECOMMENDED VALUE: %S or blank</p>		
		WG

B. Option Panels and Help Panels

2.5.1.1.1	Trimble Rawdata Files to RINEX Files: Input 1		
Comments: > TRIMBLE TO RINEX <			
> <			
> <			
Agency Running Program	> ANONYMOUS	<	
Default Receiver Type: Single Freq.	> TRIMBLE 4000ST	<	
Dual Freq.	> TRIMBLE 4000SSE	<	
Default Antenna Type : Single Freq.	> 4000ST L1 GEODETIC	<	
Dual Freq.	> 4000ST L1/L2 GEOD	<	
Include Doppler Counts as Observations	> NO	<	(NO, L1, L1&L2)
Include S/N Counts as "Observations"	> NO	<	(NO, L1, L1&L2)

2.5.1.1.1	Trimble Rawdata Files to RINEX Files: Input 1	HELP
<p>Comments: Up to three lines of comments that will be included into the headers of each generated RINEX file.</p> <p>Agency Running Program: Name of the agency/institution creating the RINEX files. Will be included into the RINEX headers.</p> <p>Default Receiver Type Single Frequency: Dual Frequency:</p> <p>Default Antenna Type Single Frequency: Dual Frequency:</p> <p>Names for the receiver and antenna types that will be proposed to the operator during execution of the RINEX converter program (provided the program runs in interactive mode, see next help panel). Depending on the type of the receiver (single or dual frequency receiver) the converter program assumes to have detected the program will propose the names in the "Single Frequency" or "Dual Frequency" input field. The final values will be included into the RINEX headers. They also have to agree with the values in the antenna phase center file (see e.g. {X:\GEN\PHAS_IGS.01}). RECOMMENDED VALUE: Use the values proposed by the International GPS Service for Geodynamics (see {X:\GEN\RCVR_ANT.TAB} and ftp://igsb.jpl.nasa.gov/igsb/station/general/rcvr_ant.tab)</p> <p>Include Doppler Counts as Observations: If L1 or L1&amp;L2 is specified the doppler counts found in the raw data files are stored as D1 or D1 and D2 observations into the RINEX files. RECOMMENDED VALUE: NO</p> <p>Include S/N Counts as "Observations": If L1 or L1&amp;L2 is specified the raw signal strength values found in the raw data files are stored as S1 or S1 and S2 observations into the RINEX files. RECOMMENDED VALUE: NO</p>		
WG		

2.5.1.1.2	Trimble Rawdata Files to RINEX Files: Input 2		
Signal to Noise Ratio	Minimum	Threshold	Maximum
Frequency L1	> 3 <	> 8 <	> 42 <