



## 14 AUTOMATIC PROCESSING

SeisPos supports Automatic Processing whereby it is possible to process a line from input of P2 data file to output of P190 file without manual intervention.

To specify automatic processing select the Automatic option in the Input dialog box when inputting a line. It is also strongly recommended to enter the first and last good shotpoints to prevent the possibility of the network adjustment failing because of lack of data on the last shotpoint of the line if extrapolation is to be kept to a minimum.

Input P2 files

Folder: D:\Data\Geco\Tupni\P291 Change

File Name	Size (KB)	Modified	Line Name	Seq	Format	FSP	LSP	FGSP	LGSP
<input checked="" type="checkbox"/> seq155.p294	139824	03/04/00 11:00:14	STBEXT-P217...	155	P2/94			1001	1500

Line: STBEXT-P2175-155 Sequence: 155

First SP:  Last SP:

First Good SP:  Last Good SP:

Format

P291  P294

Process

Interactive

Automatic

Overwrite Duplicate Lines

Figure 14-1



## 14.1 Parameter Setup

Before a line can be processed automatically it is necessary to set up the required parameters. This can only be done as part of the processing of one line, therefore the first line in a project can not be automatically processed.

The minimal parameter set up required on a previous line in order for automatic processing to run is:

*Compass Bias Estimate:* Configure the parameters as required then save the default parameters (*File | Save Parameters*). It is recommended that auto-reject be enabled.

*Network Adjustment:* Save the network configuration (*Configuration | Save Network*), set all the adjustment parameters as required, then save the default parameters (*File | Save Parameters*).

Set the a priori standard deviations as required and save these to defaults.

*Output:* Configure the output parameters as required, including records and header, then save the default parameters (*File | Save Parameters*).

Further recommended actions in order for automatic processing to run optimally are:

*Precondition:* Precondition one line, selecting optimal processing parameters. Save these to default.

*Database:* Make any changes required to optimise the network node and observation configuration then create default nodes and observations. Such changes may be the result of the creation of nodes and/or observations, or network refinement from within the Adjustment module.



## 14.2 Processing Flow

The automatic processing flow is as follows:

1. The line is input for the specified shotpoint range or for all shots if none is specified.
2. The first and last good shotpoint, if specified, are recorded with the line attributes and are shown in the project details.
3. If default nodes have been saved (Database: *Utilities | Nodes | Create Default*) these are loaded.
4. If default observations have been saved (Database: *Utilities | Observations | Create Default*) these are loaded.
5. The whole line is preconditioned using the saved default parameters (Precondition: *Save Default Parameters* button).
6. Compass bias estimation is performed and failed compasses optionally rejected.
7. The line is adjusted for the first and last good shotpoint range. The network configuration used is that which was in use when the adjustment parameters were saved (*Configuration | Save Network*). The adjustment parameters used, except for output, are those in use when the adjustment parameters were saved (*File | Save Parameters*). For output, all options are enabled.
8. The line is output to P190 file named by the line name. The output parameters and record and receiver configuration are those in use when the parameters were saved (*File | Save Parameters*).

If the processing flow is interrupted any time with a dialog requiring user input then processing may be stopped depending on the response. Most likely reasons would be errors in the P2 file, absence of required parameter files or incompatible nodes or observations with those configured.

If the network adjustment does not run to completion then the P190 output will not be performed.

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