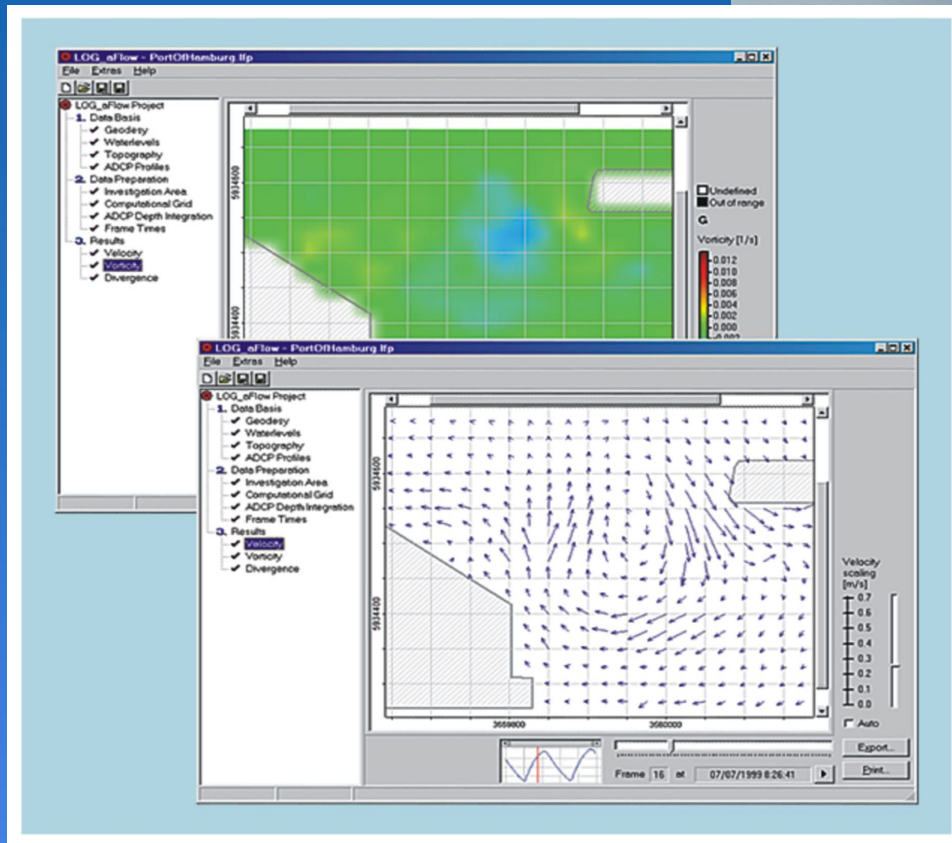


GENERAL

ACOUSTICS

LOG_aFlow

The only way to get real flow charts

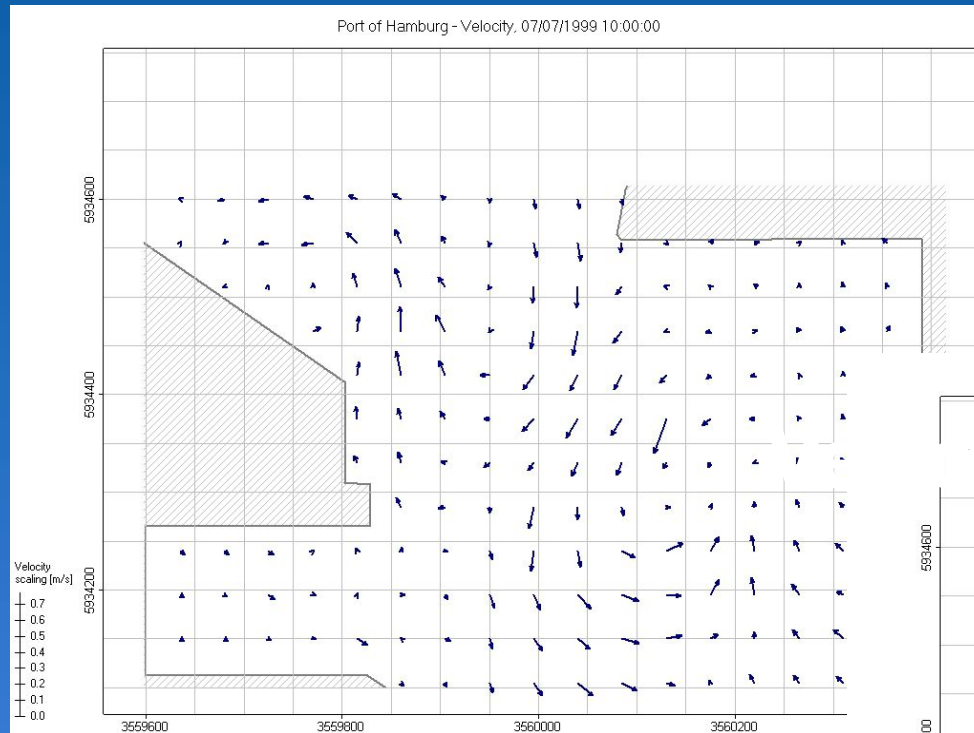


General Acoustics e.K.
Am Kiel-Kanal 1, 24106 Kiel, Germany
www.generalacoustics.com
Info@generalacoustics.com

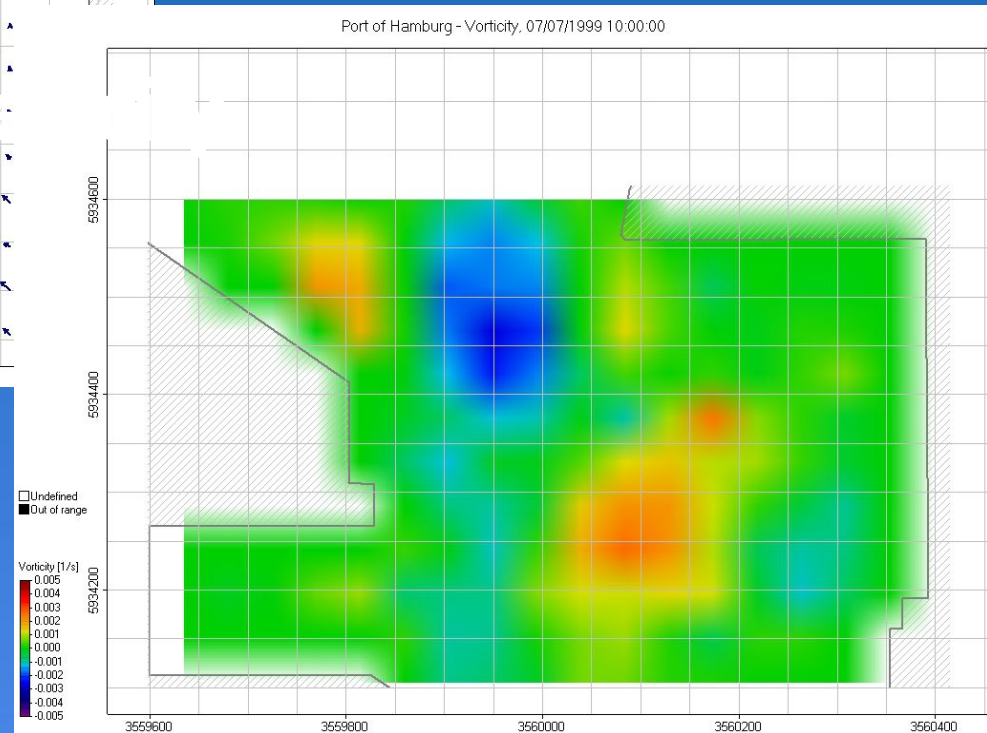
- LOG_aFlow is a sophisticated ADCP data evaluation software for hydrodynamics analysis
- LOG_aFlow evaluates the measurement data quality and creates flow charts that contain up to 5 times higher data point density compared to the original ADCP data, with information in-between survey tracks and in-between survey runs

Near-real time computation

Velocity



Vorticity



Hydrodynamic results in 3 steps

1

Database

2

Data preparation

3

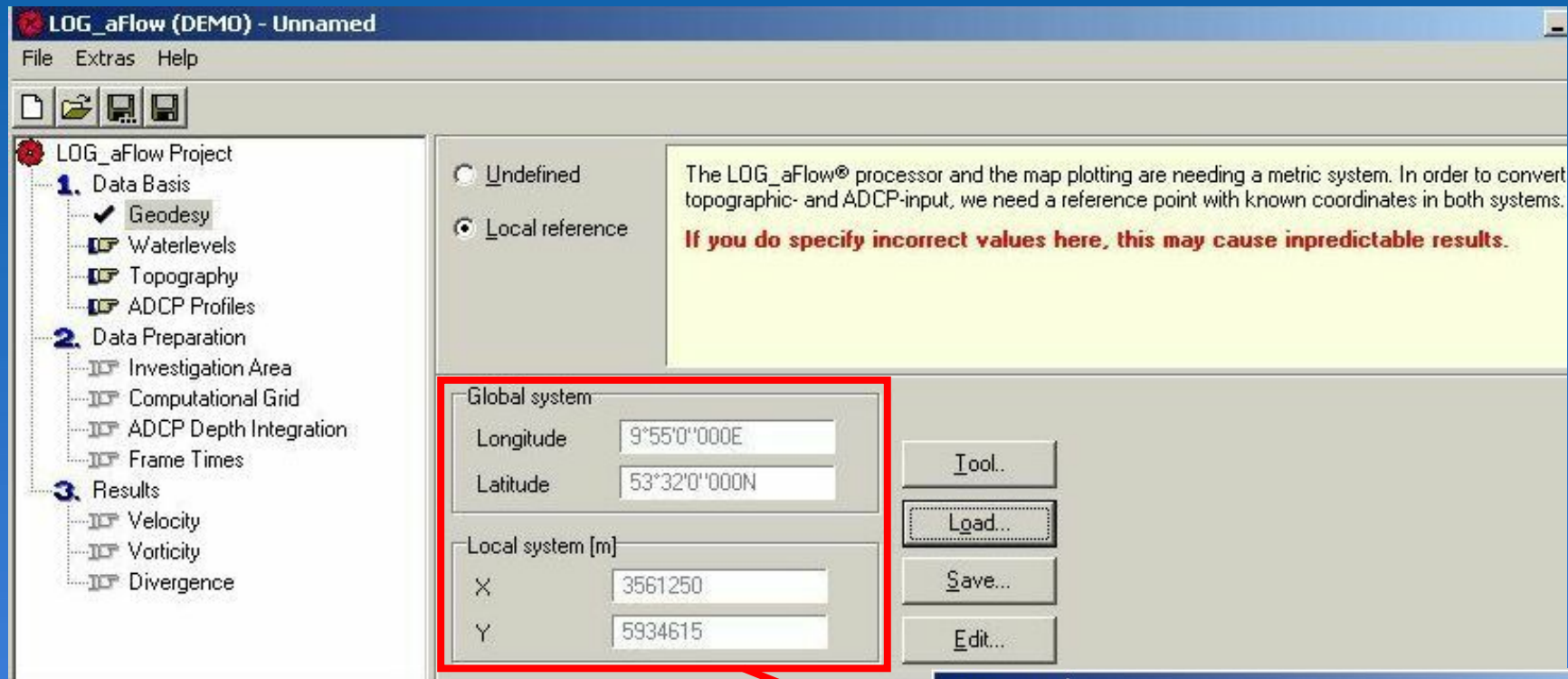
Run

1

Collect your database ...

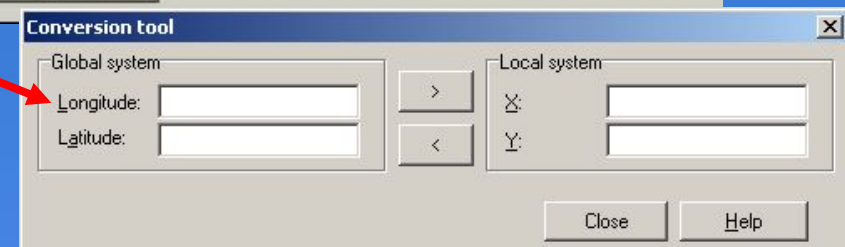
GENERAL**ACOUSTICS**

A reference point with known coordinates in both systems (Global and Local) is required.



Conversion tool

converts the Global coordinates to a Local metric system



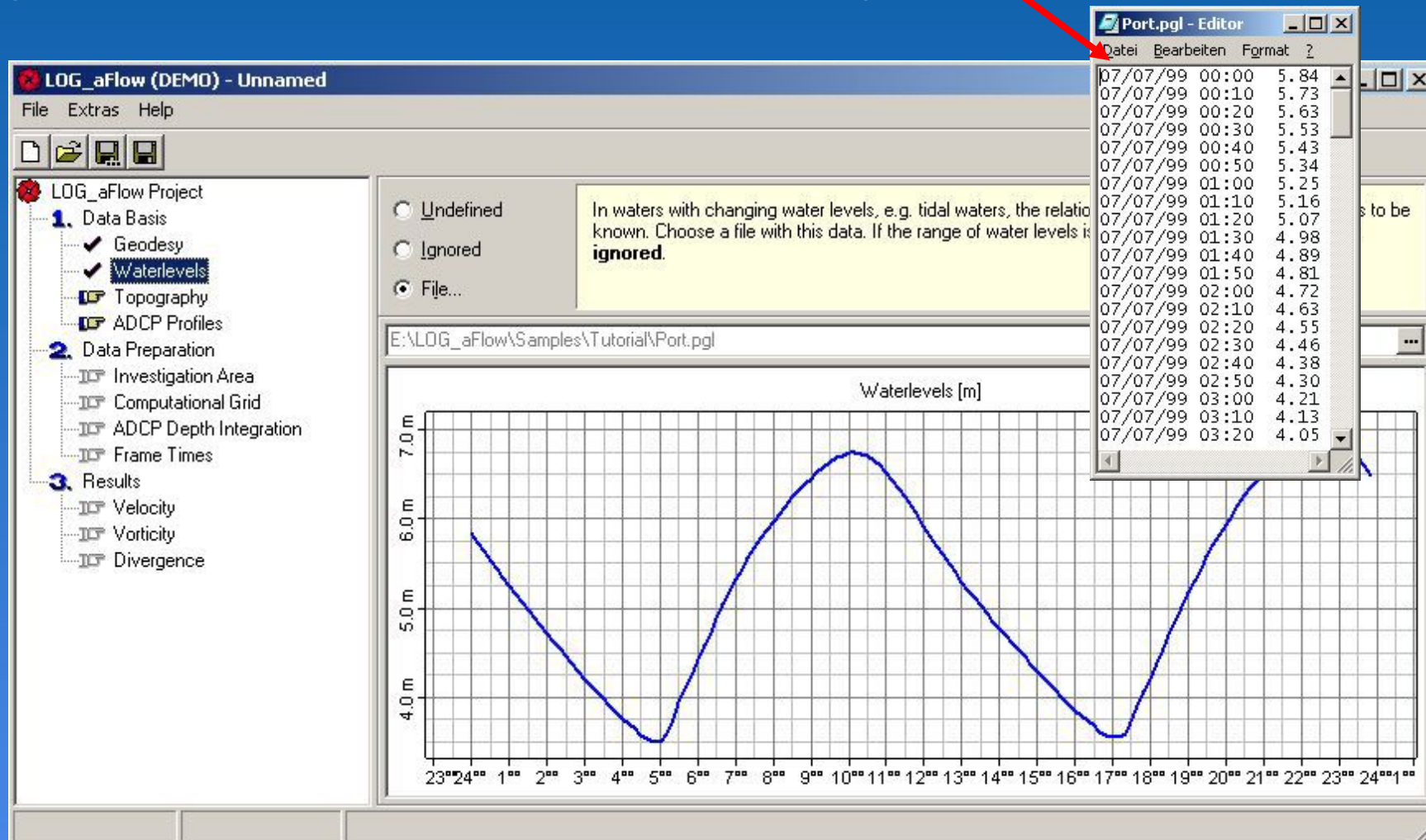
1

Collect your database ...

GENERAL**ACOUSTICS**

Water level time series are not necessary for processing, but helpful.

Simple ASCII files water level time series can be imported:



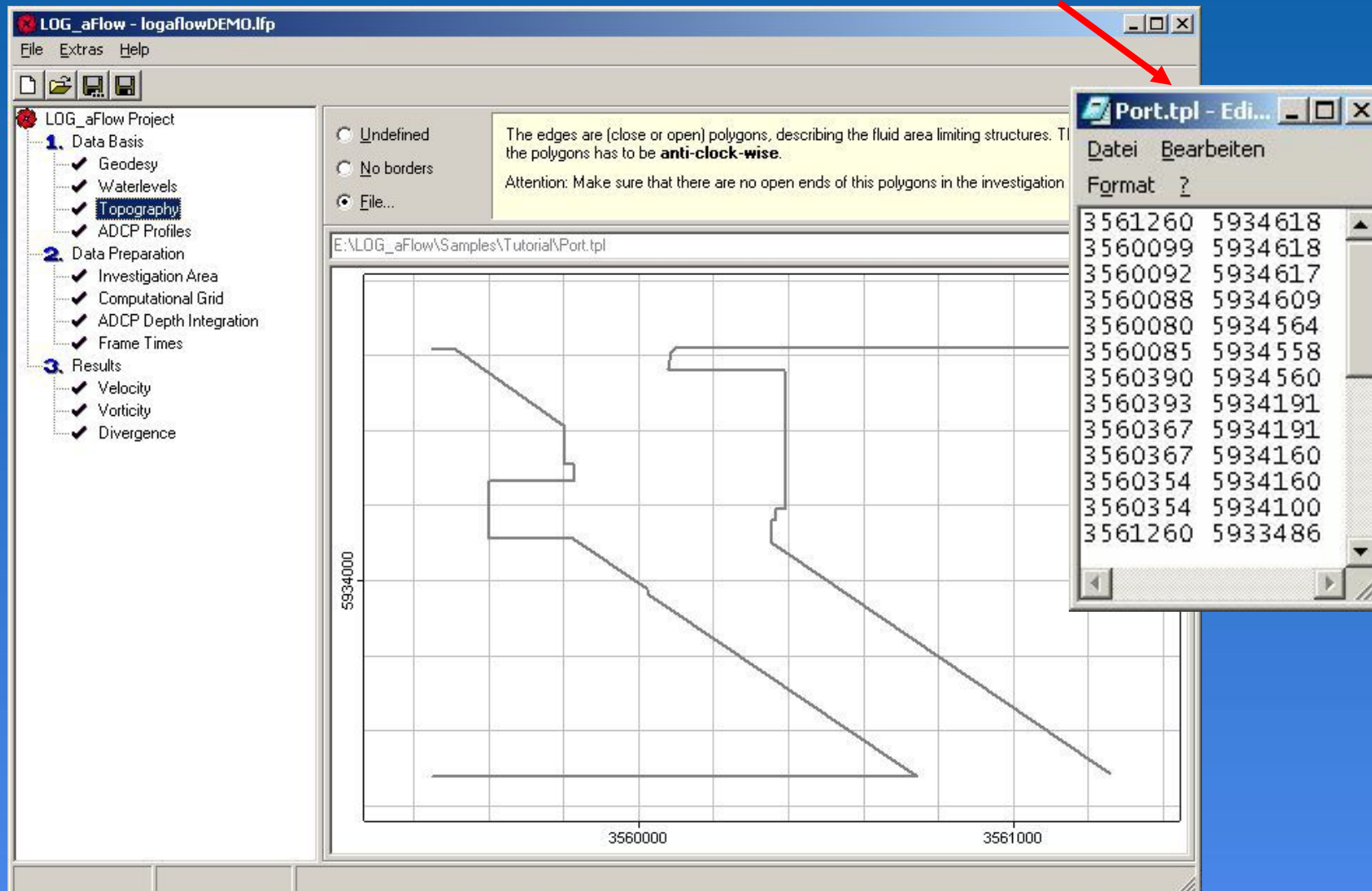
1

Collect your database ...

GENERAL

ACOUSTICS

Topography data are simple ASCII files, that can be generated with a text editor:



1

Collect your database ...

GENERAL

ACOUSTICS

...and the measurement tracks can be imported as files.

The screenshot displays the LOG_aFlow software interface. The main window, titled "LOG_aFlow (DEMO) - Unnamed", shows a project tree on the left with sections "1. Data Basis" and "2. Data Preparation". Under "Data Basis", "Geodesy", "Waterlevels", "Topography", and "ADCP Profiles" are checked. Under "Data Preparation", "Investigation Area" and "Computational Grid" are checked. A red arrow points from the "ADCP Profiles" checkbox to a "Files" dialog box. The dialog box lists a series of files in the "Files" tab, including "E:\LOG_aFlow\Samples\Tutorial\J020699V.125.lad" through "E:\LOG_aFlow\Samples\Tutorial\J020699V.070.lad". A red arrow points from the "Map" tab in the dialog box to the main window's "Map" tab. The main window's "Map" tab shows a grid with a series of green lines representing measurement tracks. A red arrow points from the "Map" tab to the "Map" tab in the dialog box. The dialog box also contains buttons for "Add files...", "Remove selected", "Remove all", and "Help". A text box in the dialog box explains that the tracks are depth-resolved plane flow vectors measured by an Acoustic Doppler Profiling system, and that the depth-integrated value will be calculated. It also notes that the user can drag multiple files from the Windows Explorer into the file listbox.

LOG_aFlow Project

- 1. Data Basis
 - ✓ Geodesy
 - ✓ Waterlevels
 - ✓ Topography
 - ✓ ADCP Profiles
- 2. Data Preparation
 - ✓ Investigation Area
 - ✓ Computational Grid

Files

- E:\LOG_aFlow\Samples\Tutorial\J020699V.125.lad
- E:\LOG_aFlow\Samples\Tutorial\J020699V.058.lad
- E:\LOG_aFlow\Samples\Tutorial\J020699V.071.lad
- E:\LOG_aFlow\Samples\Tutorial\J020699V.077.lad
- E:\LOG_aFlow\Samples\Tutorial\J020699V.086.lad
- E:\LOG_aFlow\Samples\Tutorial\J020699V.094.lad
- E:\LOG_aFlow\Samples\Tutorial\J020699V.100.lad
- E:\LOG_aFlow\Samples\Tutorial\J020699V.109.lad
- E:\LOG_aFlow\Samples\Tutorial\J020699V.117.lad
- E:\LOG_aFlow\Samples\Tutorial\J020699V.047.lad
- E:\LOG_aFlow\Samples\Tutorial\J020699V.132.lad
- E:\LOG_aFlow\Samples\Tutorial\J020699V.048.lad
- E:\LOG_aFlow\Samples\Tutorial\J020699V.049.lad
- E:\LOG_aFlow\Samples\Tutorial\J020699V.050.lad
- E:\LOG_aFlow\Samples\Tutorial\J020699V.051.lad
- E:\LOG_aFlow\Samples\Tutorial\J020699V.052.lad
- E:\LOG_aFlow\Samples\Tutorial\J020699V.053.lad
- E:\LOG_aFlow\Samples\Tutorial\J020699V.055.lad
- E:\LOG_aFlow\Samples\Tutorial\J020699V.056.lad
- E:\LOG_aFlow\Samples\Tutorial\J020699V.057.lad
- E:\LOG_aFlow\Samples\Tutorial\J020699V.059.lad
- E:\LOG_aFlow\Samples\Tutorial\J020699V.060.lad
- E:\LOG_aFlow\Samples\Tutorial\J020699V.068.lad
- E:\LOG_aFlow\Samples\Tutorial\J020699V.069.lad
- E:\LOG_aFlow\Samples\Tutorial\J020699V.070.lad
- E:\LOG_aFlow\Samples\Tutorial\J020699V.072.lad

Add files...

Remove selected

Remove all

Help

The *transsects* comprising series of depth-resolved plane flow vectors measured by an Acoustic Doppler Profiling system from which a depth-integrated value will be calculated. Transsects and edges are the main input data for calculating the flows.

Note: You can drag multiple files from the Windows Explorer into the file listbox.

Period of time

First ping:

07/07/1999 05:16:25

Last ping:

07/07/1999 18:03:02

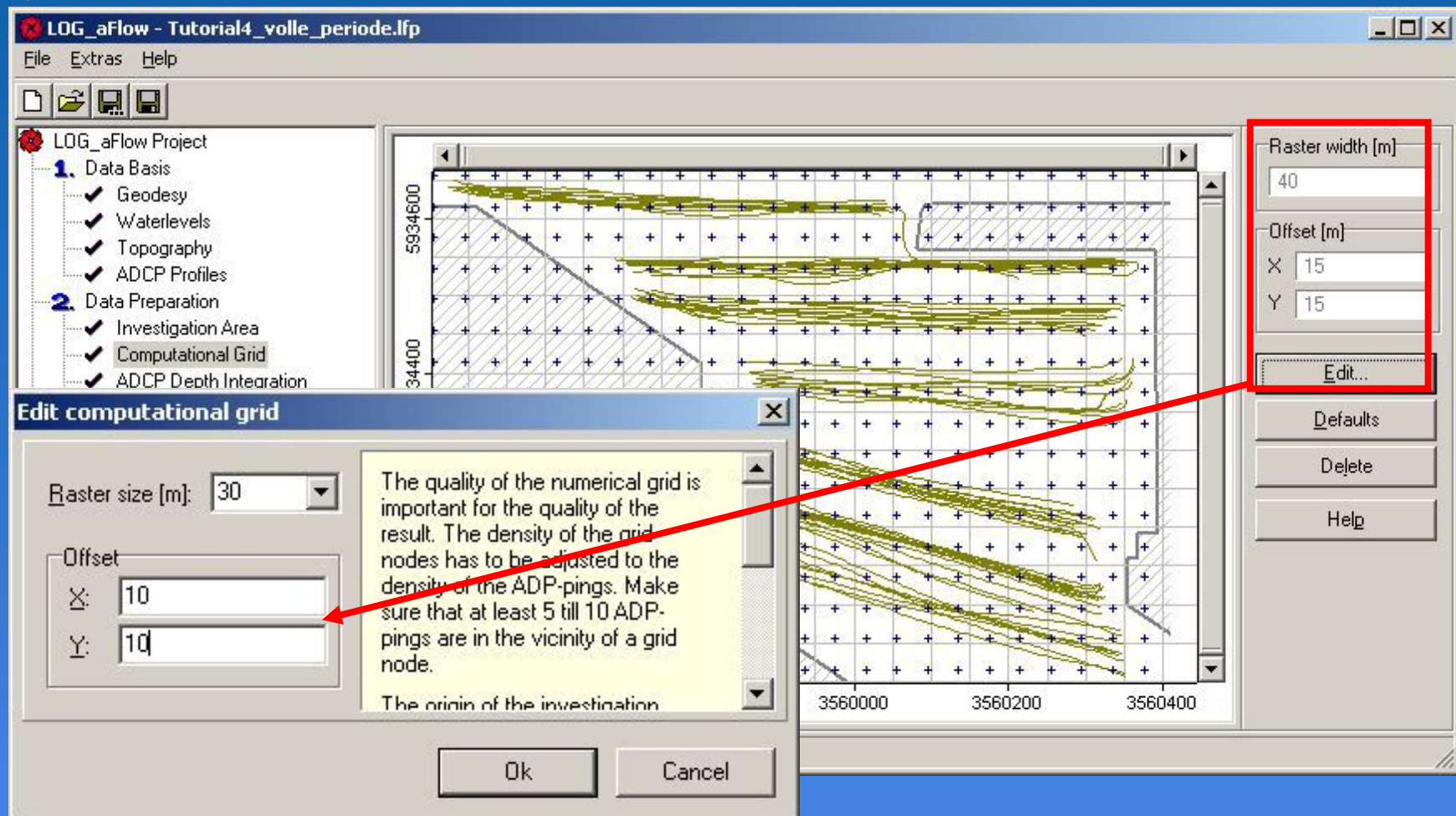
3560000 3561000

2

Prepare the process ...

GENERAL**ACOUSTICS**

The grid spacing determines where hydrodynamic results are computed.



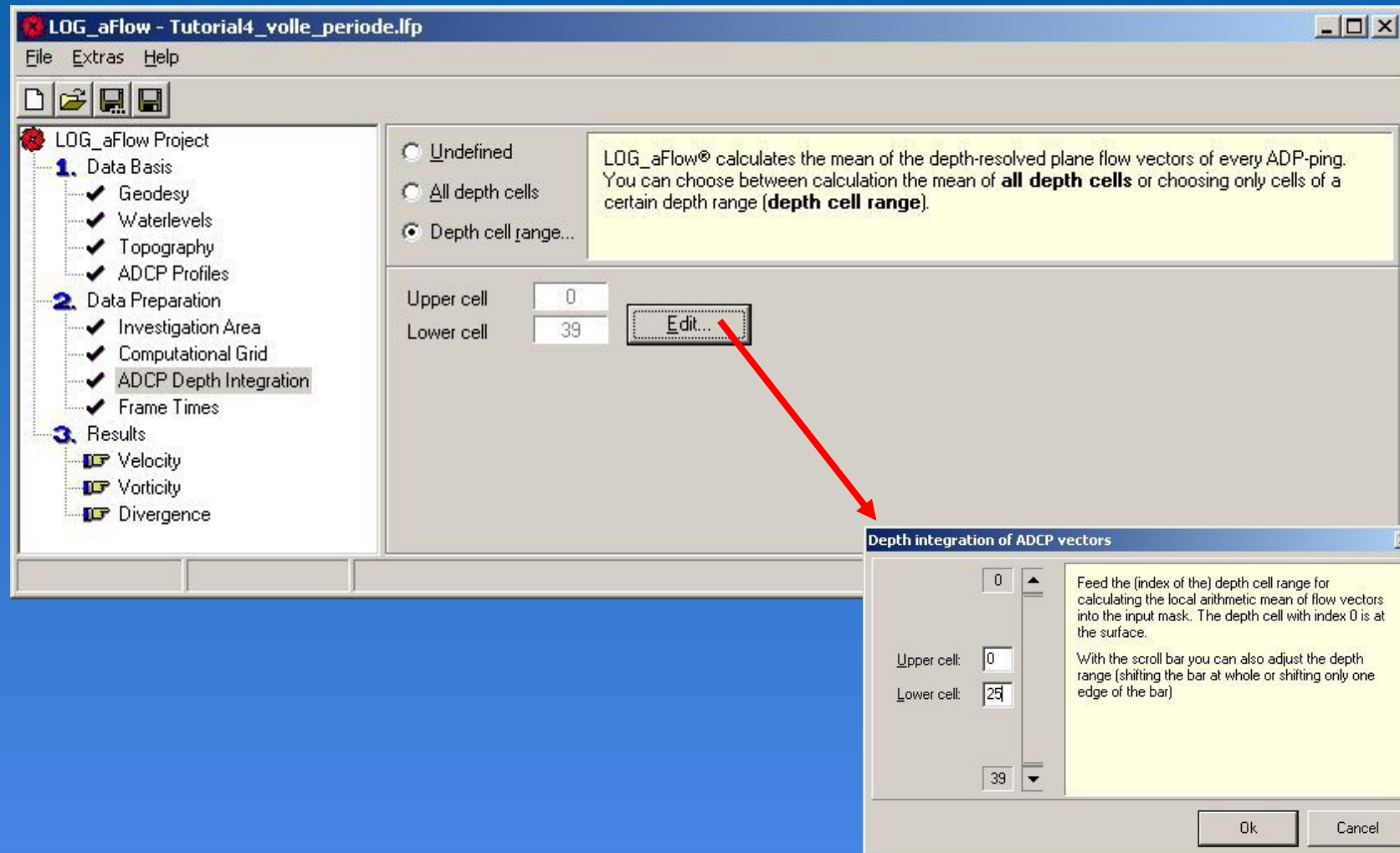
2

Prepare the process ...

GENERAL

ACOUSTICS

The depth integration can be carried out on the whole depth or part of it...



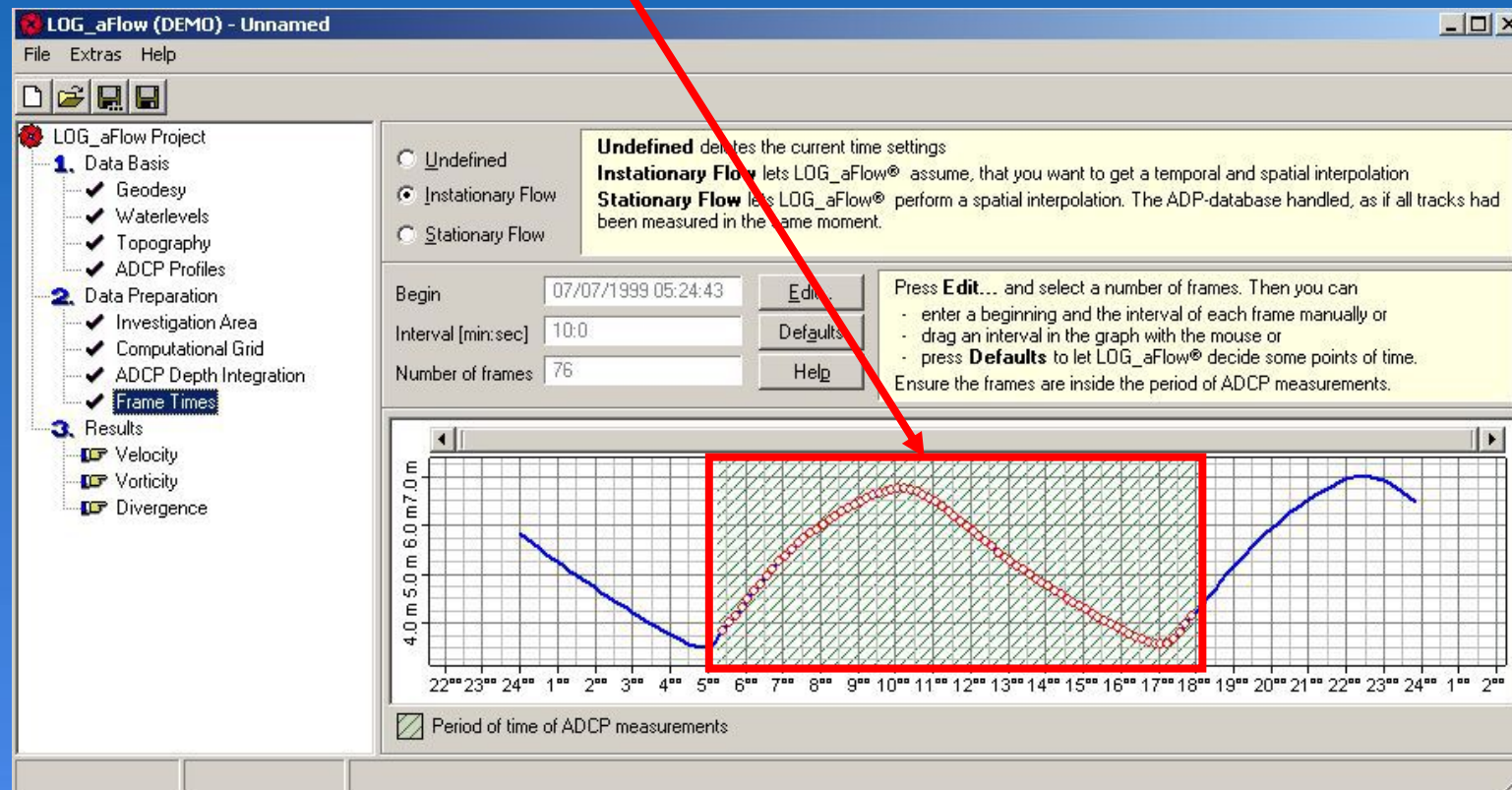
2

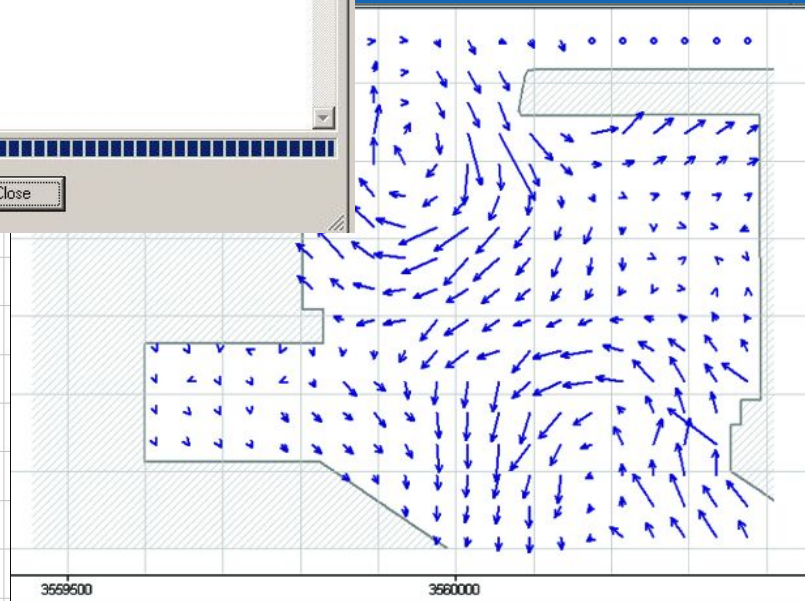
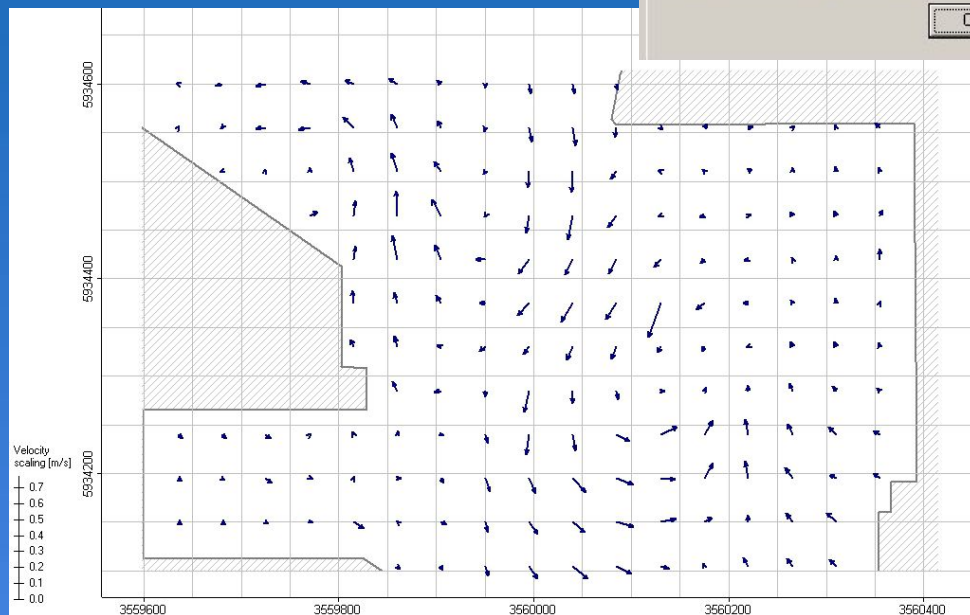
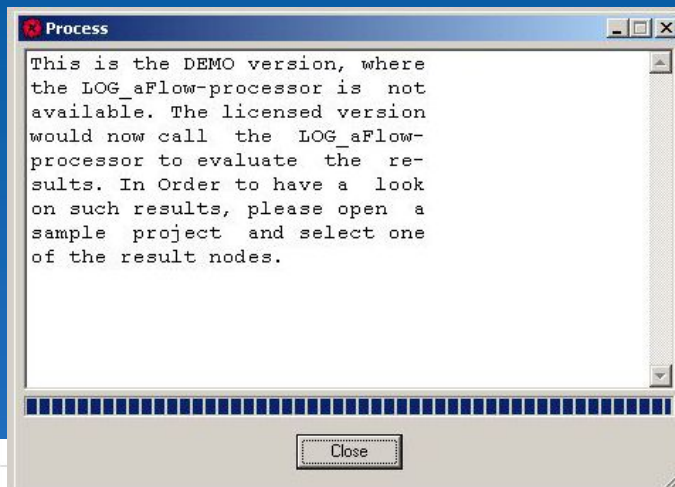
Prepare the process ...



The computation time can be defined from the available measurement range

The shadowed area shows the measurement times



3**Run ...****GENERAL****ACOUSTICS****...and get results****Velocity**

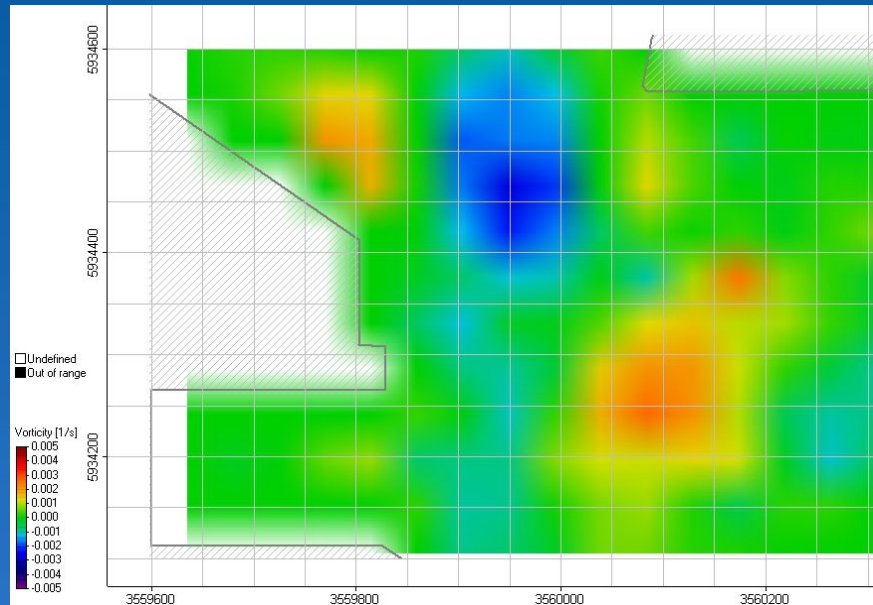
Results are exportable as
bitmaps, AVI-films and text files

3

Results ...

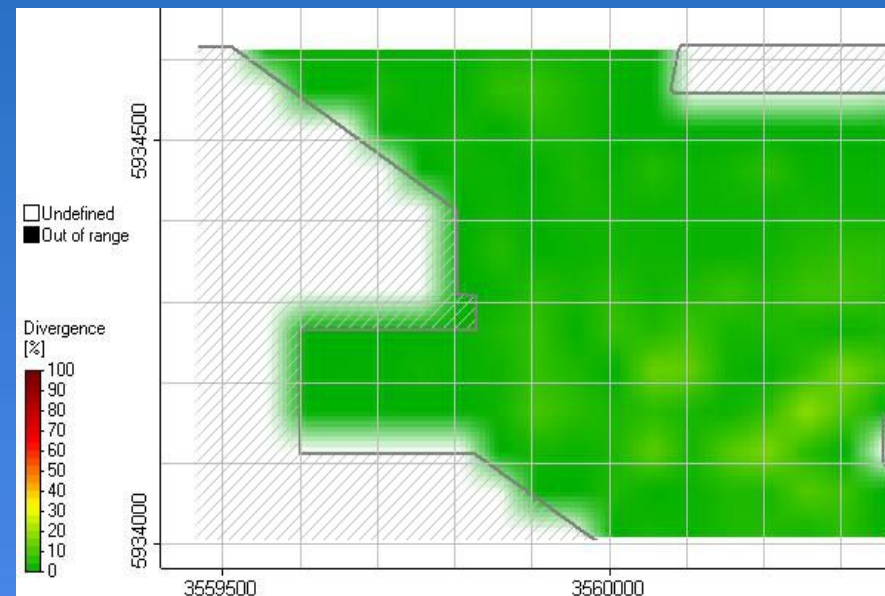
GENERAL

ACOUSTICS



Vorticity
(Eddy current)

Divergence
(Quality check)



LOG_aFlow



New
Discharge module

Your ADCP booster

NEW

Discharge module



With the discharge module the volumetric flow of a given domain can be calculated in three steps:

- 1 Database
- 2 Data preparation
- 3 Run

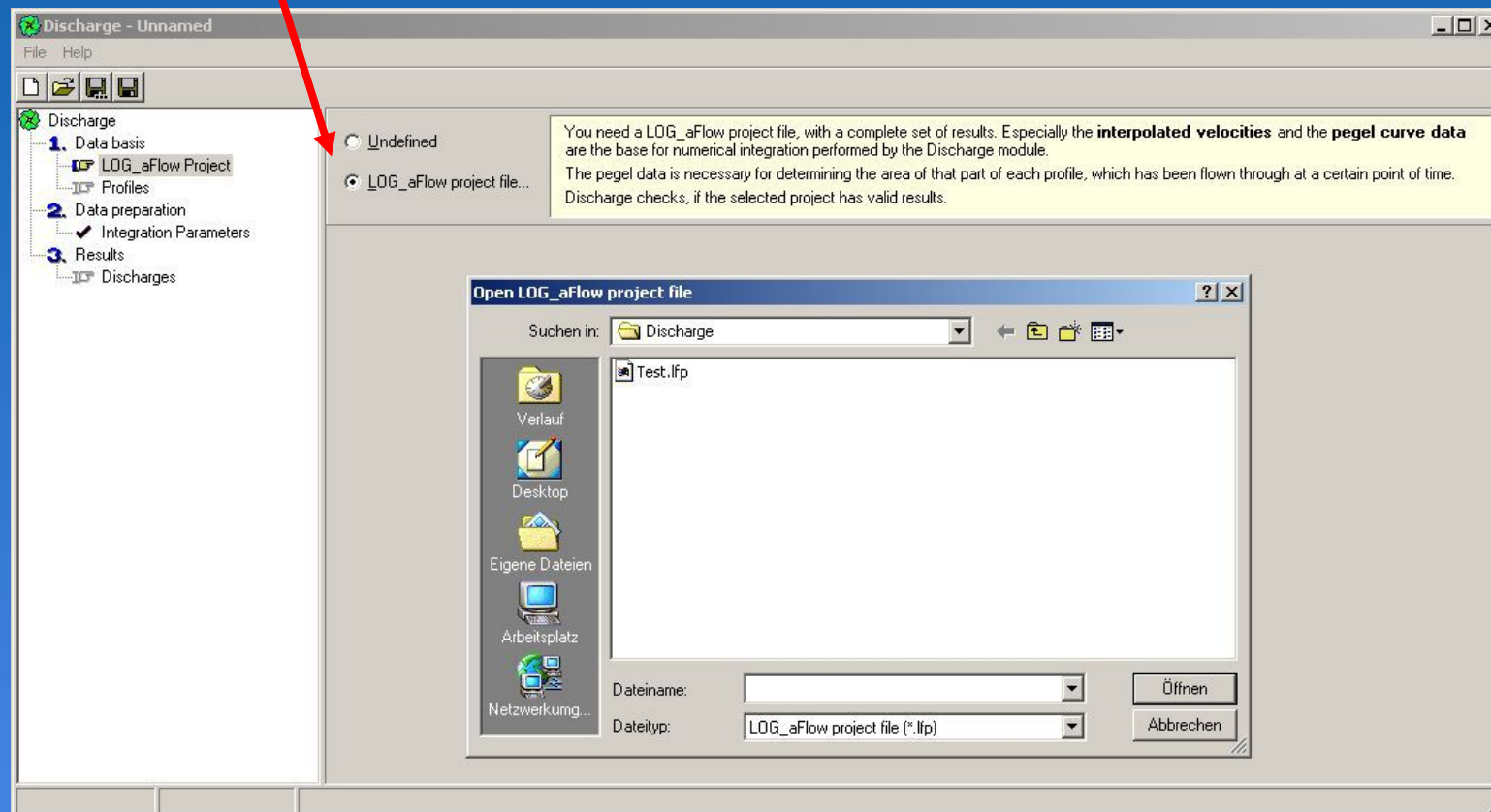
1

Collect your database ...

GENERAL

ACOUSTICS

A given LOG_aFlow project file must be specified...



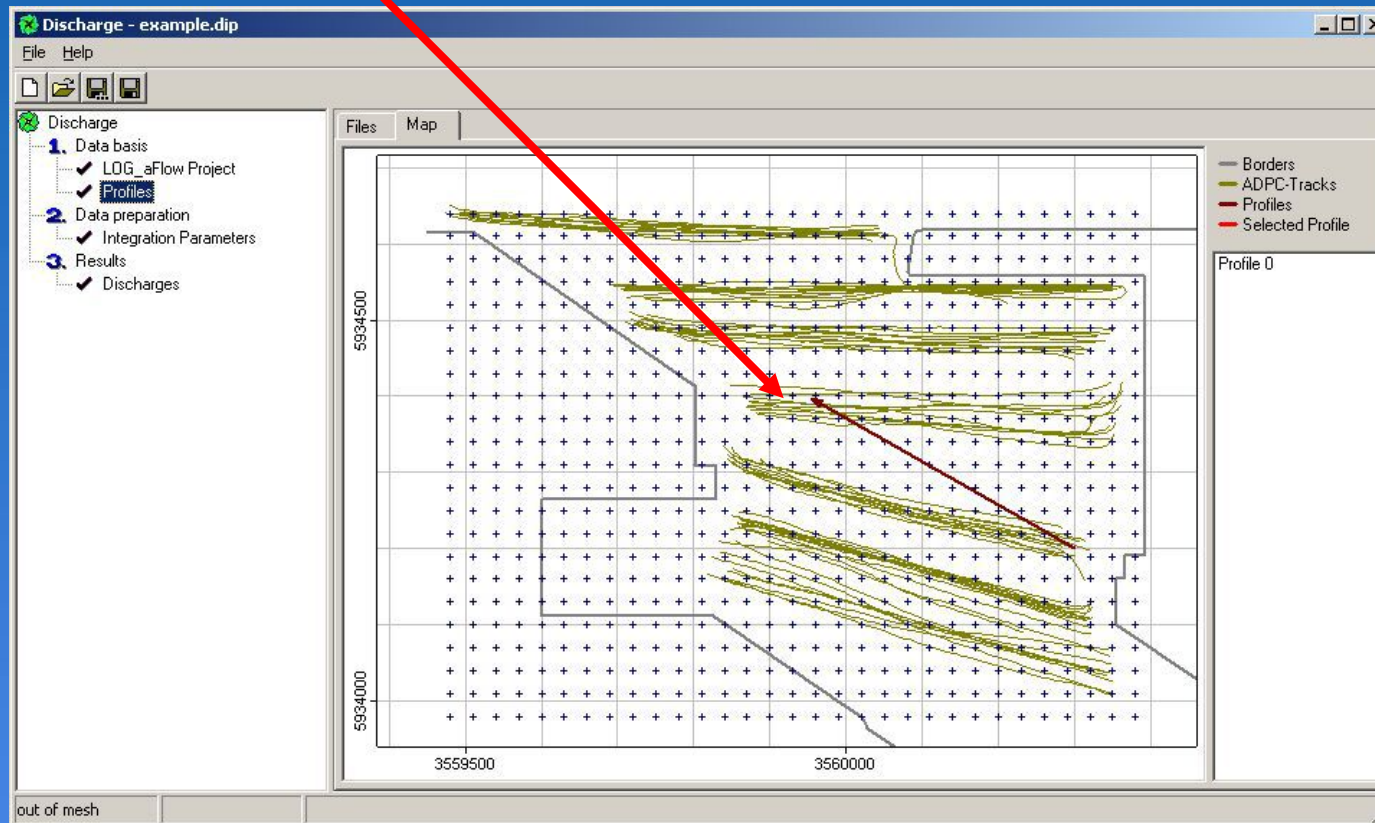
1

Collect your database ...

GENERAL

ACOUSTICS

...and the profiles selected:

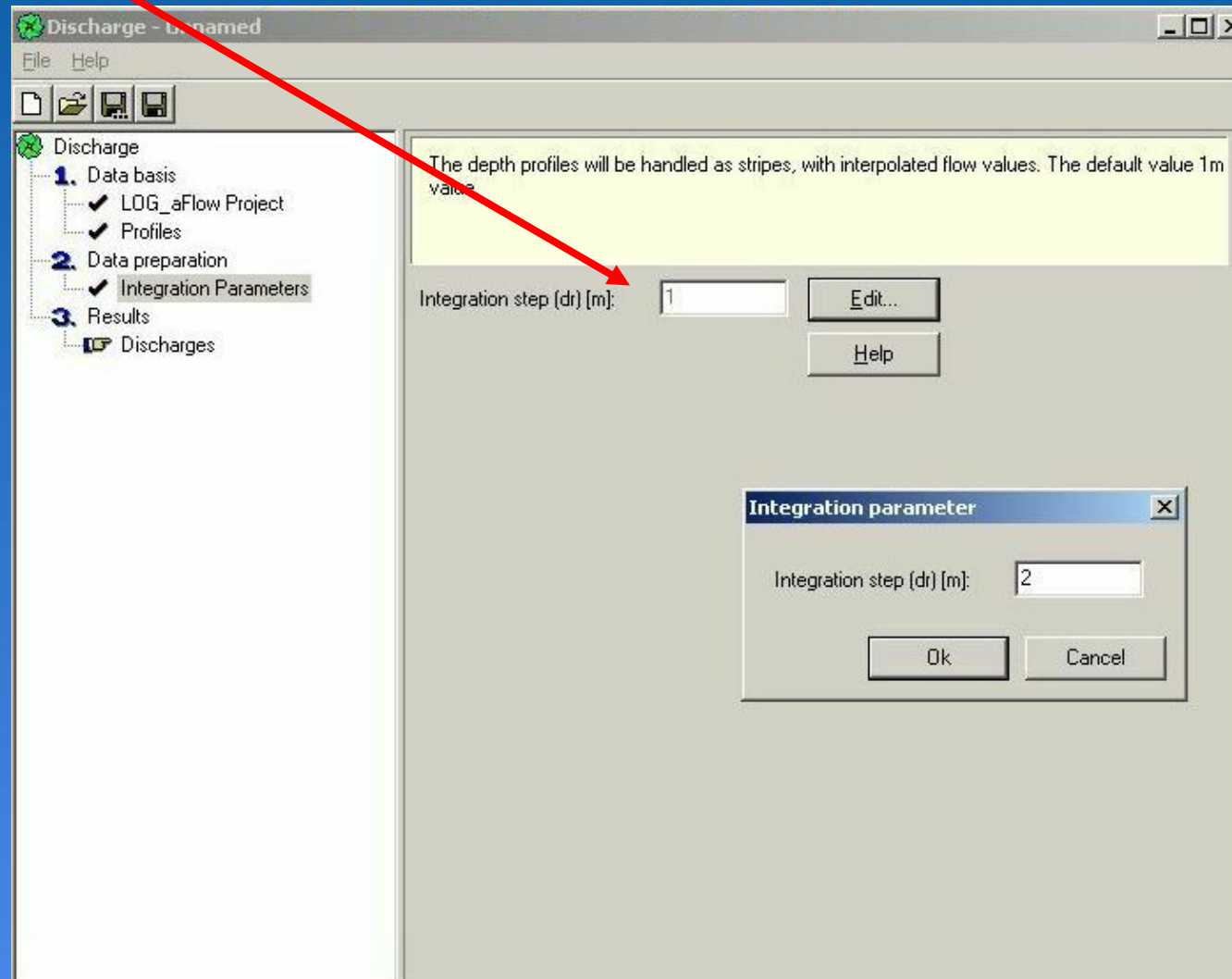


2

Prepare the process ...

GENERAL**ACOUSTICS**

Define the width of the strips used in the integration process:



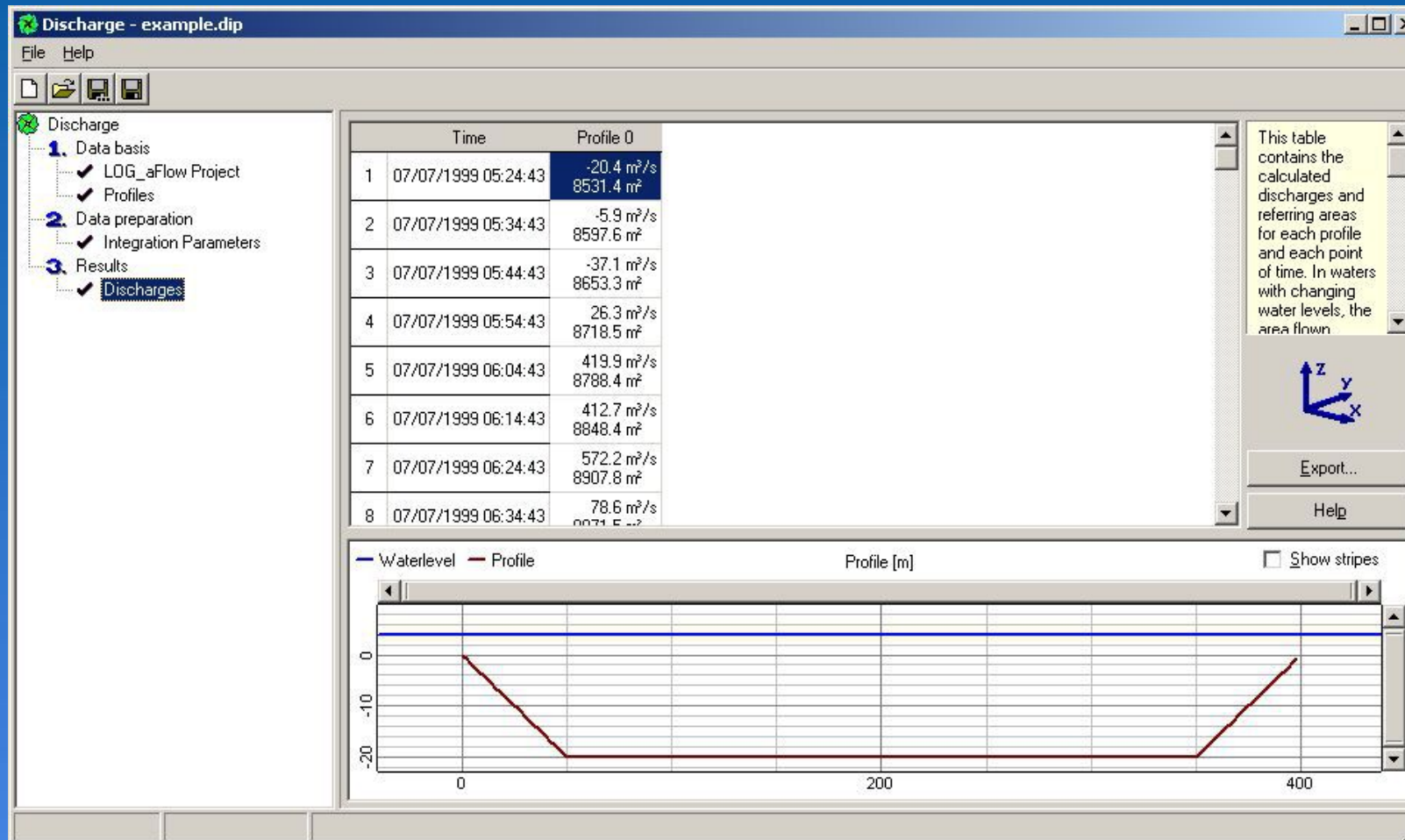
3

Run ...

GENERAL

ACOUSTICS

...and get results



Results can be exported as text files

LOG_aFlow

The only way to get real flow charts

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Info@generalacoustics.com