



## GHC – Contour-Mapper

### Contouring and mapping of 3D-Information

The transfer of observed points of information to a spatial extend, also designated as the interpolation or regionalization, allows the evaluation of spatial characteristics as well as the analysis of changes. Examples of the operational evaluation of groundwater monitoring programs are the generation of groundwater contours and groundwater table differential maps, groundwater depth maps or of isoconcentration maps for water quality parameters.

#### ■ The Product

The Smallworld GIS based interpolation tool Contour Mapper offers a technical scale overlapping tool for the professional generation, processing, management and presentation of isolines and isoareas from objects with point or line geometry. Interpolations of individual attributes and time series are supported.

Two options are available for the generation of interpolation patterns and isolines:

1. Integrated coprocessors (standard version)
2. Coupling with SURFER\* (pro version)

The management and additional processing of the interpolation results takes place in an independent data model and is supported with integrated tools. The content filter allows expanded access and visibility controls on the level of object properties. The control of the presentation is realized via an interactive visualization tool (VisTool).

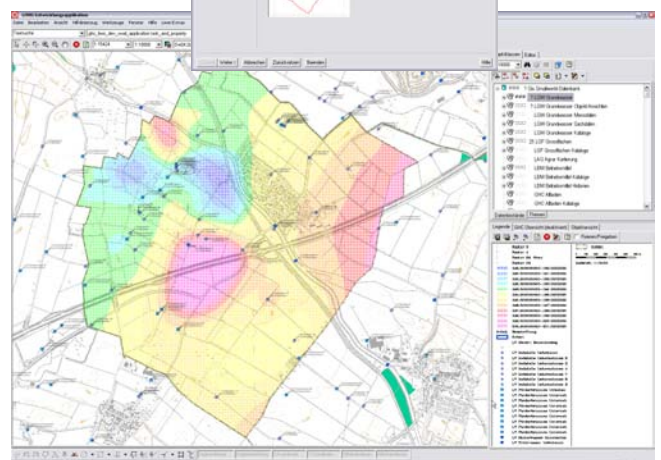
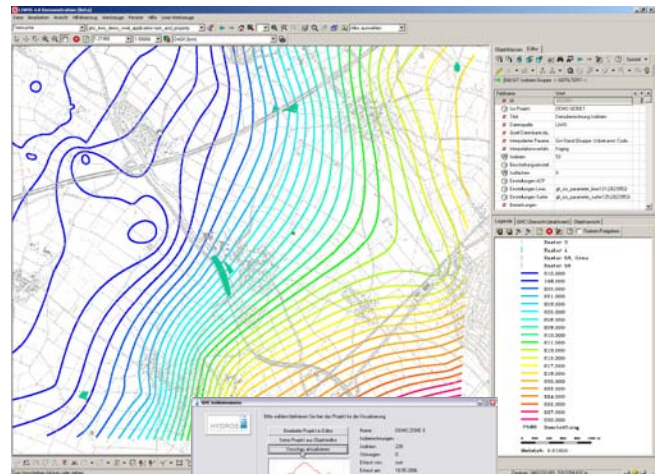
The LIWIS® - IsoLine variant contained in LIWIS® - Groundwater is specially designed for accessing measured value series.

#### ■ Functionality

##### Contour-Mapper Standardversion

- Management of complete iso-projects with accompanying isolines, isoareas, patterns and labels including meta information.
- Any number of iso-projects can be managed parallelly. They can be stored separately with the possibility of superimposition.
- Option of processing generated isolines with GIS.
- Wizard supported user guidance for interpolation and the generation of isolines.
- Special SW query tool for the filtering of output data including statistical and chronological evaluation of time series.
- Incorporation of special queries and evaluations upon request.
- Interpolation (patterns) and isoline generation via inverse distant weighted, linear interpolation routine.

- Support in classification and determination of distance classes.
- VisTool for the interactive control of the graphical, attribute dependent forms (color progression of the isolines and isoareas as well as pattern presentation) with direct SW legend support
- Auto labeling of isolines
- Visibility and access control via attribute based filters



\* Surfer versions 7/8 are products of Golden Software Inc., Colorado



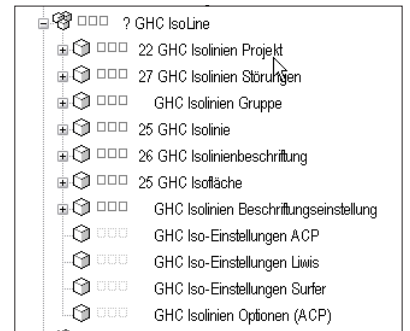


**Additional Options in the Pro Version**

- Coupling with SURFER (direct control and result redemption)
- Expanded interpolation methods such as Kriging, IDW, triangulation, natural and next neighbor, Shepard's method, radial basis function, minimal incline, etc. with comprehensive control options.
- Consideration of project limits and malfunction lines (dependent upon interpolation method)
- Expanded grid and/or pattern calculation options
- Direct display and generation

After transmitting the interpolation basis, SURFER can also be used independently over the entire scope of its functionality (pattern calculation options, 3D presentation, shading, etc.).

**Data Model**

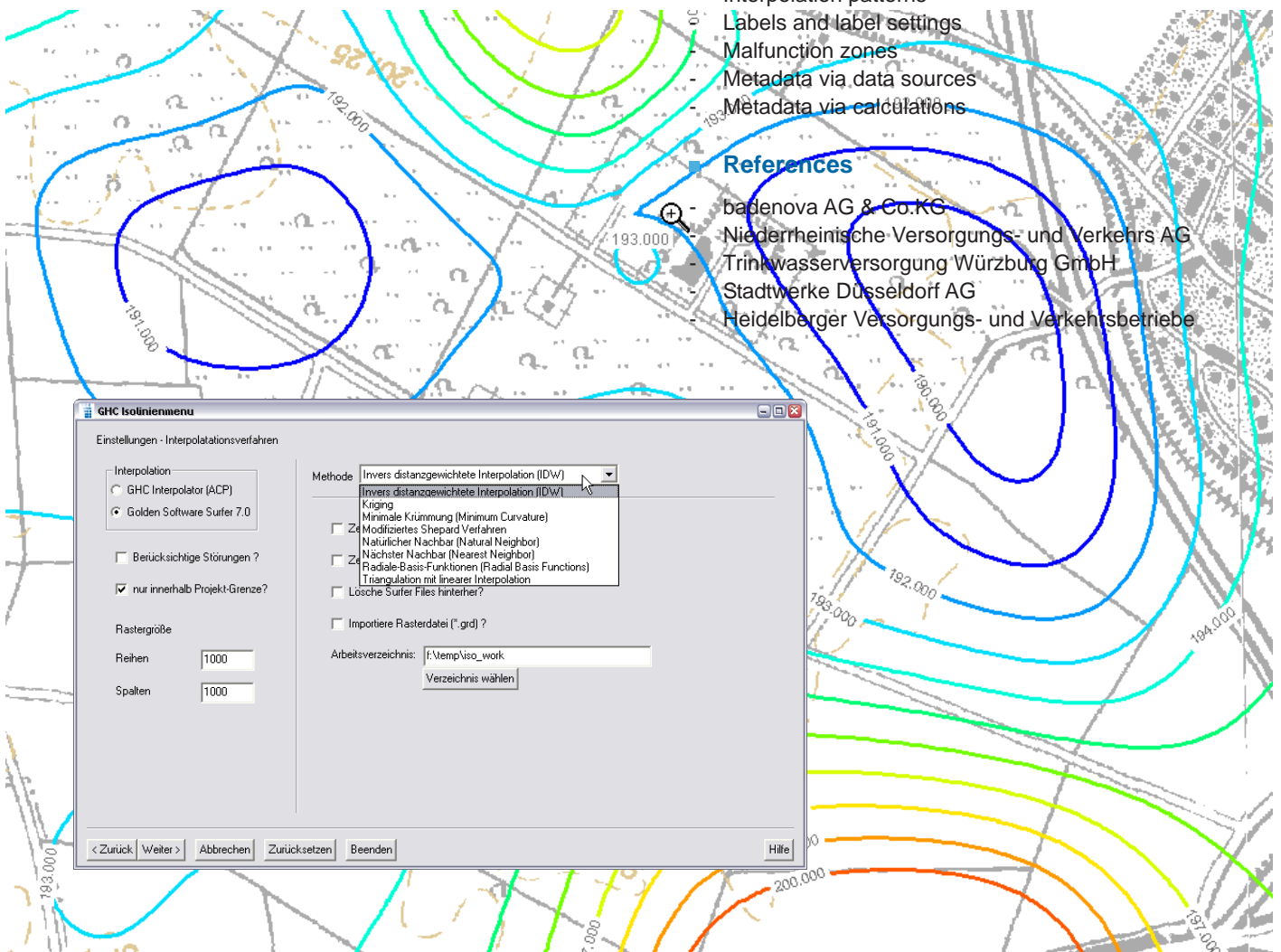


The data model is conceived for flexible work with multiple isolines and isoareas in order to provide a multitude of structured calculation results and isoline groups.

- Iso projects
- Interpolation results and/or isoline groups
- Isolines
- Isoareas
- Interpolation patterns
- Labels and label settings
- Malfunction zones
- Metadata via data sources
- Metadata via calculations

**References**

- badenova AG & Co.KG
- Niederrheinische Versorgungs- und Verkehrs AG
- Trinkwasserversorgung Würzburg GmbH
- Stadtwerke Düsseldorf AG
- Heidelberger Versorgungs- und Verkehrsbetriebe



**GHC Isoliniemenu**

Einstellungen - Interpolationsverfahren

Interpolation:

- GHC Interpolator (ACP)
- Golden Software Surfer 7.0

Berücksichtige Störungen ?

nur innerhalb Projekt-Grenze?

Rastergröße:

Reihen: 1000

Spalten: 1000

Methode:

- Invers distanzgewichtete Interpolation (IDW)
- Invers distanzgewichtete Interpolation (IDW)
- Kriging
- Minimale Krümmung (Minimum Curvature)
- Modifiziertes Shepard Verfahren
- Natürlicher Nachbar (Natural Neighbor)
- Nächster Nachbar (Nearest Neighbor)
- Radiale-Basis-Funktionen (Radial Basis Functions)
- Triangulation mit linearer Interpolation
- lösche Surfer Files hinterher?
- Importiere Rasterdatei (\*.grd) ?

Arbeitsverzeichnis: f:\temp\iso\_work

Verzeichnis wählen

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