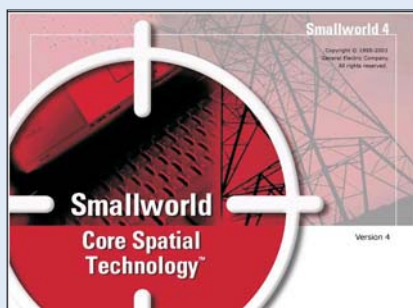


# Mettenmeier FGE Trainings Centre

## Smallworld GIS Trainings



The Mettenmeier Training Centre (FGE) was originally established in order to provide the best possible technical and management training for its own staff. The objective is to offer practical technical training tailored to the needs of each individual and leading to recognised qualifications. Since 1986, FGE has provided successful training courses and seminars on subjects such as land surveying, GIS and CAD to meet the specific requirements of a wide variety of power supply companies, local authorities, municipal services and engineering firms.

Two major features of the seminars are their neutrality in relation to specific systems and their practical orientation, thus ensuring that once back on the job the training can be applied immediately. In a pleasant training environment well equipped with suitable hardware, the participants receive comprehensive practical instruction from experienced and expert trainers. We invite you to benefit from the many years of experience

gained by the Mettenmeier FGE Training Centre. Obviously, we are offering training and seminars to meet your special requirements. Dates, locations and course content will all be individually specified.

Since 1998, Mettenmeier's FGE Training Centre has been an authorised "seminar partner" of GE Energy. This close cooperation serves to ensure a high quality of transfer of knowledge of the powerful Smallworld GIS through seminars run by experienced and qualified trainers. GE Energy coordinates the arrangements and supplies original data. The content of the seminars and the associated material will be continuously enhanced in the light of the latest developments in the Mettenmeier Network Resource Manager software. The aim is to provide the best and most up-to-date Smallworld expertise available in the marketplace.

Further services available from the Mettenmeier FGE Training Centre:

- Staff development  
We reinforce the expert know-how of your staff by extending their personal competence:
  - Team training
  - Presentation skills and techniques
  - and much more



- Smallworld GIS
  - Basics
  - Configuration
  - System administration
- Smallworld Network Resource Manager
  - Electricity NRM
  - Gas/Water NRM
  - Sewer NRM
- Magik Development
- Special Workshops
- Individual Training



# Mettenmeier FGE Trainings Centre

## Smallworld GIS Trainings

### Basics of Smallworld GIS

#### Duration

4 days

#### Target group

Future Smallworld GIS users

#### Course objectives

- Basic GIS knowledge
- Overview of Smallworld GIS functionality
- Basic system operation for data capture, update, analysis and presentation using Smallworld GIS

#### Entry requirements

- Basic knowledge of surveying and mapping
- Practical experience with graphic user interfaces

#### Course content

- GIS – general
- User interface
- Management of alternatives and conflict resolution
- Trails – the basis of data capture and construction
- View and display control
- Practical experience with
- Object class menu
- Objects and object editors
- Construction
- Dimensioning
- Import, transformation and editing of raster maps
- Topology and its rules
- Definition of object queries
- Storage and clipboard
- Generation of print reports and printouts
- Plot output
- Network analysis



### Smallworld GIS configuration

#### Duration

3 days

#### Target group

Project managers, system administrators, application developers

#### Course objectives

Customisation of Smallworld GIS to meet individual user needs

#### Entry requirements

Basic knowledge of operation of Smallworld GIS

#### Course content

- Database partitions
- Creation of an individual ACE
- Spatial Object Controller
- Application menu
- Configuration of the toolbar
- Hot keys
- Modification of the menu structure
- Screen messages
- Layout of legends
- Scale configuration
- Object configuration
- Mini-CASE
- Style-Editor
- Plot application
- Generation and editing of plot templates
- Plot output
- Authorisation

### Smallworld GIS – Introduction to system administration

#### Duration

3 days

#### Target group

Project managers, system administrators, application developers

#### Course objectives

- Overview of the administrative options of Smallworld GIS
- Communication of basic knowledge on system support on the basis of the configuration course

#### Entry requirements

- Good knowledge of Smallworld GIS
- Good knowledge of Windows NT

#### Course content

- System components and their requirements within the system environment
- Basic knowledge of MAGIK GIS installation and set-up
- Emacs installation and set-up
- User accounts under Windows NT
- Product installation under Windows NT
- GIS configuration menu
- Licences
- Smallworld Master File Server (swmfs) and Windows NT
- Journal files and restart procedures
- Database server
- Structure of the program group
- Database partitions and files
- Images and databases
- Spatial Object Controller and stored data
- Upgrade procedures and patches
- Security with regard to the program and the operating system
- Access control by authorisation
- Plot function and plotter configuration
- Integrity check with regard to geometry and blocks
- Copy and compression of databases



# Mettenmeier FGE Trainings Centre

## Smallworld Network Resource Manager

### Smallworld GIS Electricity NRM

#### Duration

3 days

#### Target group

Users of the Smallworld Electricity NRM in public or private sector power supply services

#### Course objectives

Set-up and operation of a power supply network information system based on Smallworld GIS

#### Entry requirements

- Basic knowledge of Smallworld GIS operation (basic course)
- Basic knowledge of power supply systems

#### Course content

- Data model
- Spatial reference planes and graphics systems
- Map data capture and update
- Electricity user interface
- Objects in the Electricity NRM
- Detail (large-scale) map and overview (medium-scale) map
- Object capture in the detail and overview maps
- Schematic maps and diagrams
- Internal maps
- Cable cross-sections and trench drawings
- Topology and relations
- Network analysis
- Configuration

### Smallworld GIS Gas/Water NRM

#### Duration

3 days

#### Target group

Users of the Smallworld Gas/Water NRM in public and private sector energy and water supply undertakings and partnerships

#### Course objectives

Set-up and operation of a gas or water supply network information system based on Smallworld GIS

#### Entry requirements

- knowledge of Smallworld GIS operation (basic course)
- Basic knowledge of gas and water supply

#### Course content

- Types of maps available in the Gas/Water NRM
- Object classes and objects
- Network dependencies
- Network topology
- Assignment of attribute data
- Schematic structure of a pipe network
- Construction of pipe geometry on the basis of raster data
- Prefabricated components and preformed shapes in the pipe network
- Tees in the pipe network
- Service connection pipes
- Object class construction
- Dimensioning of pipes
- Copying and editing of object geometry in the overview map
- Network analysis

### Smallworld GIS Sewer NRM

#### Duration

3 days

#### Target group

Users of the Smallworld Sewer NRM in municipal, private sector and joint venture sewerage services and engineering firms

#### Course objectives

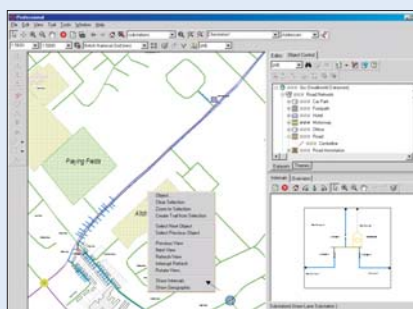
Set-up and operation of a sewer information system based on Smallworld GIS

#### Entry requirements

- Basic knowledge of Smallworld GIS operation (basic course)
- Basic knowledge of waste disposal

#### Course content

- Data model
- User interface
- Manholes and special structures
- Inlets and outlets and their topological function
- Gravity reaches and pumping mains
- Revision of manhole and reach data
- Connection pipes
- Hydraulic data
- Generation of longitudinal profiles
- Monitoring of maintenance intervals
- Pipe damage and connection branch map
- Import of TV inspection data
- Pipe condition classification and evaluation
- Asset data
- Configuration of the Sewer NRM



# Mettenmeier FGE Trainings Centre

## Smallworld GIS Trainings

### Training for Magik application developers

#### Duration

15 days

#### Target group

Smallworld GIS users and administrators who wish to learn more about application development in the Smallworld GIS environment

#### Course objectives

Participants will learn about the possibilities for development of applications and enhancement of data models and functionality in the Smallworld GIS

#### Course content

- Magik programming (basic and advanced)
  - Object classes and methods
  - Magik syntax
  - Variables, operators, blocks
  - Loops, procedures
  - Symbols
  - Object class definitions
  - Instance generation
  - Inheritance and hierarchy
  - Databases
  - Menus and Editors
  - Traceback
- Case-Tool
  - 3D data modelling
  - CASE menu and apply
  - Relations and their implementation
  - Fields
  - Theme-related rules and manifolds
  - Rules of documentation
- Application development
  - Architecture of applications
  - Data dictionary
  - Accessing relations
  - Software components and BUID process
  - Class browser
  - Messages and message system
  - Data loading



### Additional Mettenmeier products for Smallworld GIS

#### Duration

1 days

#### Target group

Smallworld GIS users who are looking for practical tools to assist their data capture and update work, or who are already using these tools

#### Course objectives

SPresentation and practical use of Smallworld Add-ons to simplify and accelerate data capture and update

#### Entry requirements

Knowledge and experience in the operation of Smallworld GIS as well as data capture and update problems

#### Course content

- Multiple Object Editor for simultaneous editing of several different objects
- Topography Professional for efficient collection and management of topographic objects
- Multi Map Editor for simplified generation of serial plots using the standard Network Resource Managers
- Colouring tool enabling any desired pipe/cable/conduit sections or other objects to be filled with colours
- Easy Plot menu enabling plot jobs to be generated in raster formats or PDF
- Error Symbol to simplify marking of errors
- other material on request

### Special workshops

You still have queries on specific aspects of your work with Smallworld GIS? You would like to consolidate or reinforce your existing know-how? The Mettenmeier FGE Training centre offers you basic workshops on subjects such as

- Dimensioning
- Auxiliary lines and constructions
- Database queries
- Management of alternatives
- Object queries
- Generation of reports
- Plot templates, etc.

Or are you interested in the possibilities of customising Smallworld GIS Network Resource Managers to meet your ideas and requirements? We invite you to become acquainted with background information on the Network Resource Managers and on your data model through a dialogue with the software developers. In cooperation with the software development department of Mettenmeier GmbH, we offer advanced workshops covering subjects such as

- Gas/Water NRM
- Electricity NRM
- Sewer NRM
- System interoperability

### Individual training

Customised courses enable the current knowledge of your staff to be specified as the starting point for targeted instruction, thus achieving efficiencies in their further training. You are invited to design your own training programme.

