

# **ILWIS 2.2 for Windows**

**The Integrated Land and Water Information System**

## **Installation and New Functionality**

ILWIS Development,  
International Institute for  
Aerospace Survey and Earth Sciences  
Enschede, The Netherlands

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## Authors and Acknowledgments

The first chapter in this ILWIS 2.2 Guide briefly lists all new functionality in ILWIS 2.2 compared to ILWIS 2.1 This chapter is written by Wim Koolhoven.

Chapter 2 in this ILWIS 2.2 Guide completely replaces the ILWIS 2.1 Installation Guide; the new Installation chapter is written by Willem Nieuwenhuis.

Chapters 3, 4, 5, 6, 7, and 8 in this ILWIS 2.2 Guide should be seen as a supplement to the ILWIS 2.1 Reference Guide. Only new or drastically changed Help texts as written by Petra Budde are included in this ILWIS 2.2 Guide. For other descriptions, please refer to the ILWIS 2.1 Reference Guide.

Chapter 9 in this ILWIS 2.2 Guide contains two exercises, which can be seen as an extension of the ILWIS 2.1 User's Guide. The exercises were written by Remco Dost, Hans de Brouwer and Jan Hendrikse. The methods and the data used in the exercises are the sole responsibility of the authors of the exercise. For questions and remarks concerning a case study, please contact the author.

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






Project Leader: Wim Koolhoven.

We like to thank the alpha and beta testers both within and outside ITC who gave useful feedback to improve the software.



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# Preface

Thank you for purchasing ILWIS 2.2!

ILWIS 2.2 is an upgrade of ILWIS 2.1; compared to ILWIS 2.1, the following functionality has been added:

- Extended visualization and annotation capabilities;
- New types of georeferences to handle aerial photographs of non-flat terrain;
- New types of coordinate systems to handle artificial and local coordinates;
- Extended capabilities for GeoStatistics, most notably the Kriging operation;
- Extended import and export possibilities.

Chapter 1 of this ILWIS 2.2 Guide lists the new functionality of ILWIS 2.2 in more detail.

This ILWIS 2.2 Guide which accompanies the ILWIS 2.2 software:

- replaces the ILWIS 2.1 Installation Guide, and
- should be regarded as a supplement to the ILWIS 2.1 Reference Guide and the ILWIS 2.1 User's Guide.

Below, the contents of this guide are listed in more detail.

## What is ILWIS?

ILWIS is an acronym for the Integrated Land and Water Information System. It is a Geographic Information System (GIS) with Image Processing capabilities.

ILWIS allows you to input, manage, analyze and present geographical data. From the data you can generate information on the spatial and temporal patterns and processes of the earth surface.

ILWIS is developed by the International Institute for Aerospace Survey and Earth Sciences (ITC), Enschede, The Netherlands. For more than a decade, since 1985, the software has undergone major improvements. By December 1996, with the release of ILWIS 2.0, the software environment had been changed from DOS to Windows. Major upgrade ILWIS 2.1 was released in October 1997. In the near future, we plan to port ILWIS to Win32 and incorporate new features of Windows 95/98/NT.

At ITC, the ILWIS Development group continues to improve the ILWIS software. Any suggestions, wishes or requests for new functionality are most welcome at [wishes.ilwis@itc.nl](mailto:wishes.ilwis@itc.nl). The ILWIS user group will have a large influence on the priority settings of any new developments.

### The ILWIS media

The ILWIS 2.2 Guide is part of the documentation for ILWIS 2.2. The full documentation includes:

- **ILWIS Beginner's Guide.** A first look at ILWIS, introducing the basic concepts, some essential ILWIS techniques and the main operations included in ILWIS;
- **ILWIS User's Guide.** Training in the skills you need to work with ILWIS. It provides numerous exercises to practice GIS techniques and Image Processing operations;
- **ILWIS Applications Guide.** Advanced procedures to work with ILWIS, providing 25 case studies for various research disciplines;
- **ILWIS 2.1 Reference Guide.** Detailed description of the functionality of ILWIS including its window types, the objects, the operations, etc., illustrated with tips and examples.

Besides these Guides, extensive on-line and context-sensitive **Help** is available in the program.

### Structure of this ILWIS 2.2 Guide

This ILWIS 2.2 Guide should be used in combination with the existing ILWIS 2.1 documentation as described above; the ILWIS 2.2 Guide does *not* replace the existing ILWIS 2.1 documentation.

This ILWIS 2.2 Guide consists of 9 chapters:

- Chapter one, **New Features**, gives a brief overview of new and updated functionality in ILWIS 2.2.
- Chapter two, **Installing ILWIS 2.2**, provides instructions to install ILWIS, as well as information about connecting a digitizer and/or printers and plotters. This chapter replaces the ILWIS 2.1 Installation Guide.
- Chapter three, **ILWIS window types**, contains the updated menu of the Main window.
- Chapter four, **ILWIS objects**, contains updated documentation for ILWIS objects.
- Chapter five, **Editors**, describes the functionality of new or changed editors: the representation class editor, the georeference tiepoint editor, the coordinate system tiepoint editor and the annotation text editor.
- Chapter six, **Map and Table calculation**, lists new operators and functions to calculate with maps and tables and updated documentation.
- Chapters seven, **Operations**, describes new operations in ILWIS 2.2 and contains updated documentation for several other operations.

- Chapter eight, **How to...**, provides you with new and updated information on performing a certain task and choosing the correct menu commands.
- Chapter nine, **Exercises**, consists of two exercises illustrating the new functionality: Georeference Orthophoto and Geostatistics.
- Finally, the **Appendices** provide overviews of all objects, operations, commands, expressions that can be used on the command lines, syntax for scripts, file extensions, etc.

### Conventions used in the ILWIS 2.2 Guide

This guide is formatted in such a way that the specific actions dealing with the software are separated from the accompanying text.

- Formulas that you should type exactly as described are shown in `Courier New 10`.  
For example: `Mapc = Mapa + Mapb`

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☞ *This is a tip box. It is used to give tips.*

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