

Towards an open-source software for ichnological analysis

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Trace fossils are widely accepted as an invaluable investigative tool in facies recognition, event correlation and palaeoecological reconstruction. However, comparatively little work has been done on software development. This work presents a software project which aims to apply computational methods to study the relationship between environment and traces, resulting in a software especially dedicated to ichnological statistics.

The software design builds on the experience with the IchnoGIS method (Baucon *et al.*, this volume) and the corresponding outcome will include ichnoassemblage analysis, ichnologic characterization of facies, spatial statistics, as well as ANOVA and other classic statistical methods. It will provide a wide variety of statistical and graphical techniques, including clustered bar charts, pie charts, single and multiple line charts, histograms and scatterplots. Tabular output will be in HTML, which means an immediate compatibility with the World Wide Web.

The source code of this software environment will be freely available at www.ichnogis.com under the GNU Affero General Public License, and pre-compiled binary versions will be provided for various operating systems.

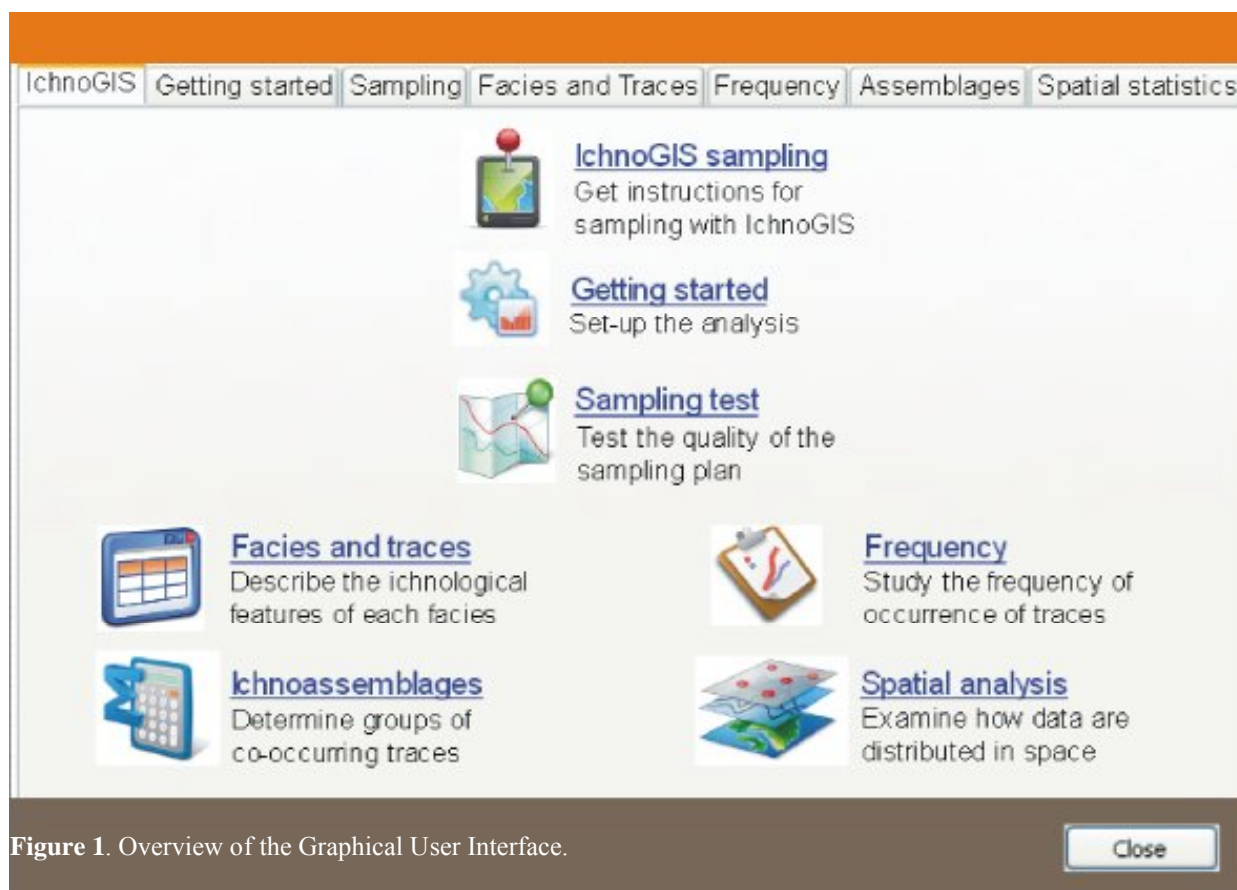


Figure 1. Overview of the Graphical User Interface.

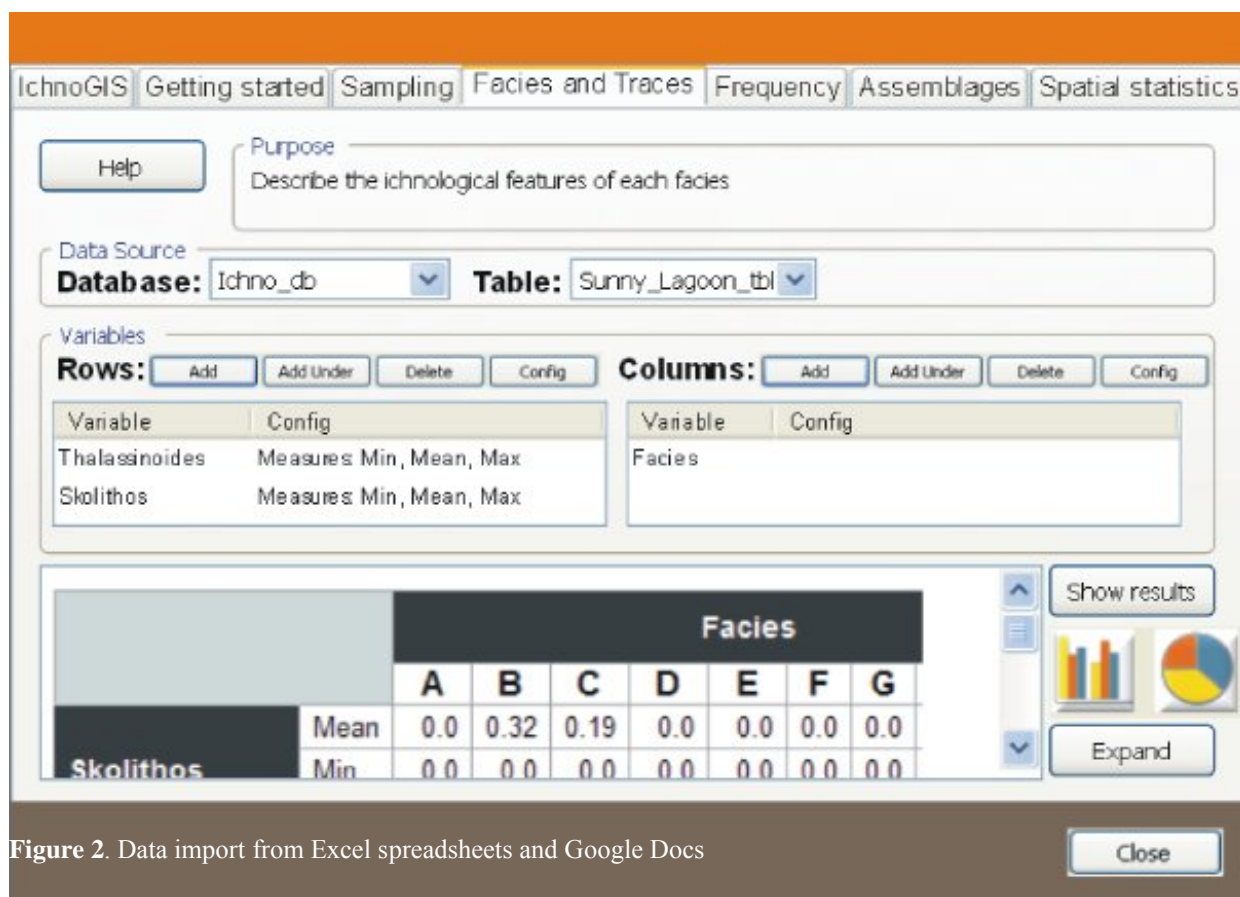


Figure 2. Data import from Excel spreadsheets and Google Docs

