Field-Map synchronization

Synchronization

- Tool for fast and effective sharing of database structure and dataset

- Principle – management of central (server) database storing all the data and the template of database structure
  - Different users have different rights to connect this database, manage it and upload/download data
  - Admins/Powerusers set the structure of server database and assign its individual parts (i.e., plots) to Users + download data from server after their finalization to analyze them
  - Users/Others get the structure of server database, receive assigned plots + save data collected in the field to server

1) Admin creates project structure with lookup lists and plots and uploads it to the server. Simultaneously, he/she assigns individual plots to different users.

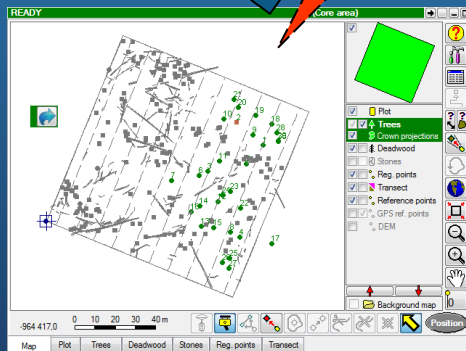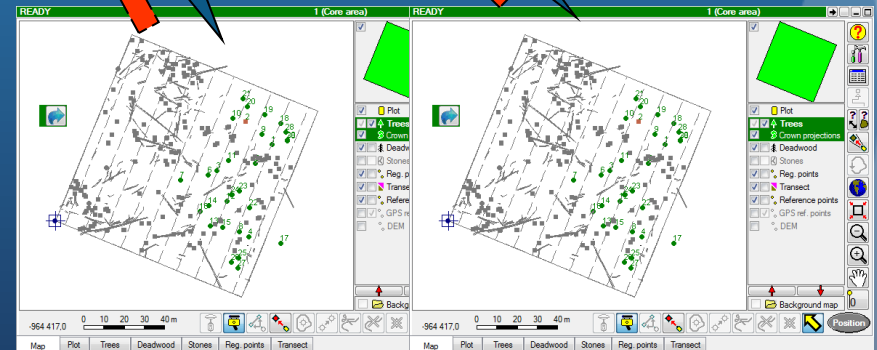4) Admin can download completed dataset to his/her project to analyse the data.
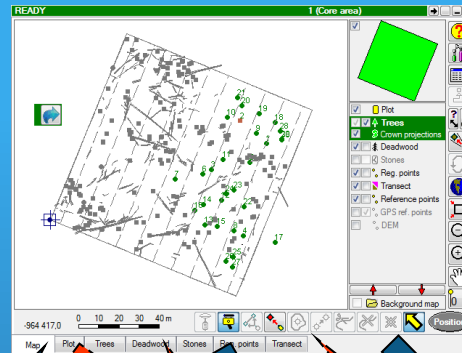
Server

2) Users synchronize their projects with server, which means they load server project structure and plots assigned to them.

3) Users „do their job in the field" and upload collected data to server database.

Admin/Poweruser

User1

User2

Advantages

- All workers of the project have the same project structure and lookup lists
  - Especially usefull when working on projects with large spatial extent (e.g., NFI)

- Only the team leader can manage the structure of database (i.e., the structure of data collected in the field)

- Admins cannot only to add but even to remove, plots from User projects via synchronization

- Projects of individual field teams comprise only those plots, which are under their area of interest

How does it work?

- Synchro Journal
  - Binary Large Object (Blob) format
  - Principle component of synchronization procedure ensuring the same structure of server, admins and users databases
  - Stores commands from admins and powerusers concerning:
    - Uploading changes in database structure to the server
    - Uploading changes in lookup lists structure to the server
    - Assigning/Removing of plots to individual users
    - Messages send to individual users via synchronization procedure *(even Users and Others are able to use this option)*

- Current time is recorded after successfull synchronization into SynchroDate attribute; new synchronization will be started based on its relation to EditDate attribute

Setting of synchronization parameters
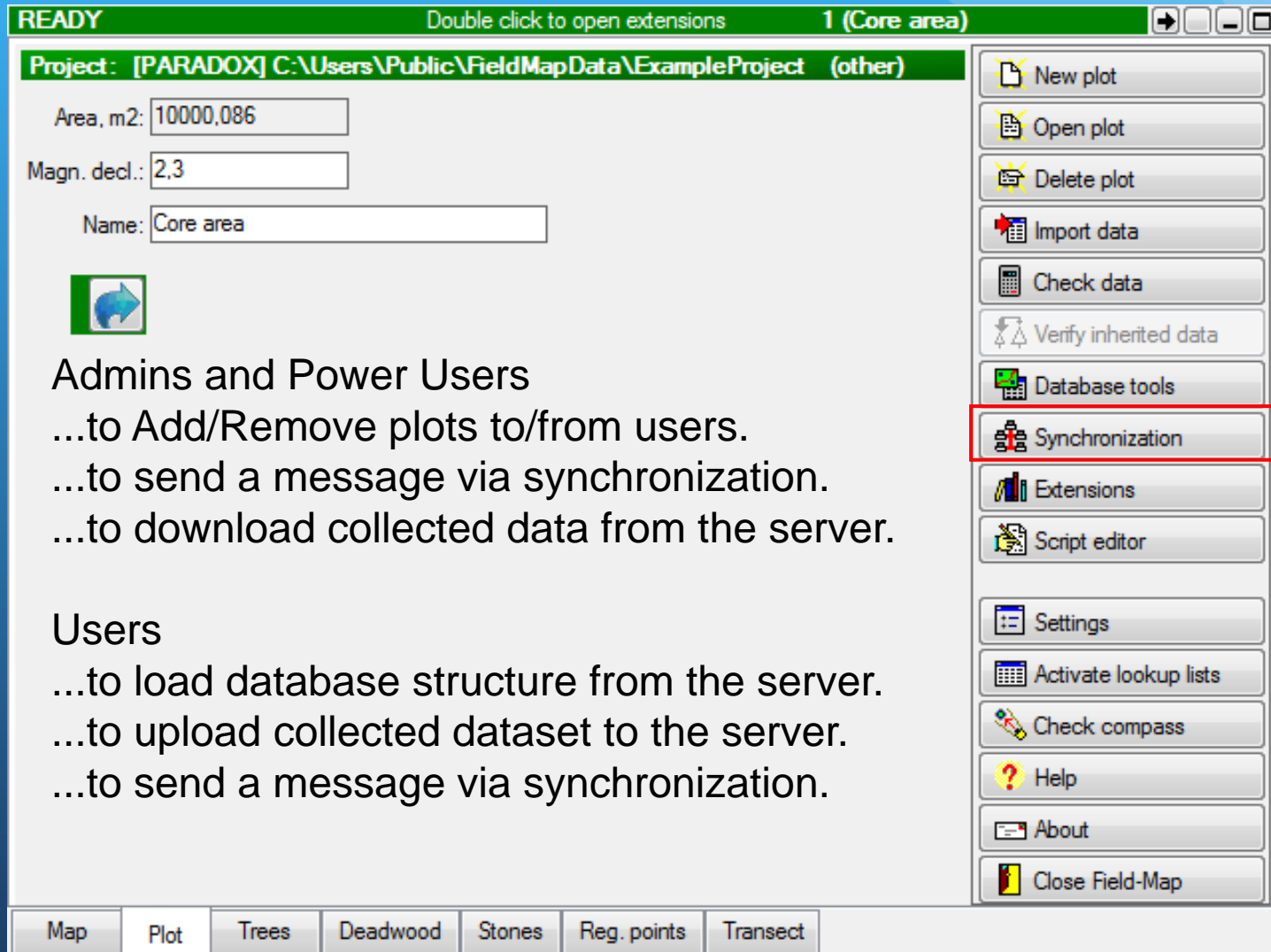
Admins
...to add changes in database structure and lookup lists to Synchro Journal.

Setting of synchronization parameters

Synchronization in steps

1. Create server project (MSSQL_SERVER)

2. Add current plot via synchronization

3. Send the plot to the server

4. Create new project from Existing (FMPM)

5. Add script to run synchronization after open project

6. Open new project in FMDC and run synchronization

Thank you for your attention