General information

About LISp-Miner data mining software.
LISp-Miner system

- 7 GUHA procedures
  - 4ft-Miner – the most used, generalisation of association rules
  - SD4ft-Miner, Action4ft-Miner – useful companions
  - 4 additional procedures
- Elementary modules
  - Empty metabase
  - LMAdmin.exe – to set up the connection
  - LMDDataSource.exe – data preparation
- KEX – machine learning procedure
4ft-Miner

- Association rules
  - General relations of Boolean attributes Antecedent ≈ Succedent
- Conditional association rules
  - $A \approx S$ / Condition
- Boolean attributes A, S, C
  - Attribute (set of values), not only Attribute (one value)
- Fine tuning of set of relevant rules
  - Semantical aspects
Steps to use LISp-Miner

- Learn about architecture of LISp-Miner (next slides).
- Study Barbora example, see tutorial Barbora – ready example.
- Run on your own data
  - 4ft-Miner procedure – recommended
  - SD4ft-Miner, Action4ft-Miner – optional
  - Additional procedures – optional
LISp-Miner – Architecture

- One metabase
  - Central data repository

- Modules
  - Unlimited count
  - Working with metabase
  - Rules and conventions

- DataMatrix description
- Task parameters
  - Partial cedent definitions
  - Quantifiers parameters
- Results
  - Association rules
  - Verified patterns
4ft-Miner detailed architecture view

- **Metabase**
  - Definition of the data matrix
  - Definition of the relevant rules set
  - The set of simple rules

- **DataSource**
  - Analyzed data (read only)

- **4ft-Miner**
  - 4ftTask
  - 4ftResult
Steps to run 4ft-Miner on your data

1. Prepare data in ODBC format (see example database Barbora).
2. Download LM software, see tutorial First steps.
3. Prepare empty metabase, see tutorial First steps.
4. Prepare data matrix from your data, see tutorial LMDDataSource.
5. Apply 4ft-Miner, see tutorial 4ftTask.
Steps to run additional GUHA procedures

1. Prepare data in ODBC format (see example database Barbora).
2. Download and prepare empty metabase, see tutorial First steps.
3. Prepare data matrix from your data, see tutorial LMDataSource.
4. Alternatively to steps 2 and 3 you can use already prepared metabase LM_Barbora, see tutorial Barbora ready example.
5. Run selected procedure, see corresponding tutorial.