Assignment 1
24.09.2014

Integrity of files

Purpose:

Develop a program to monitor the integrity of files using checksums HMAC (or MD5, CRC32, ..). The program has to support a set of exceptions (included in a separate file) containing a list of files and folders to skip. Execution of the program should be done manually. There should be two modes of operation:

- "indexing": creates a signatures of every file, skipping exceptions
- "analysis": shows which files have changed (modified, deleted, newly created)

Additional information:

Sign up on http://ilias.unibe.ch for "2014HS: 12016 Security". There you will find course material and announcements.

Links:

MD5: http://en.wikipedia.org/wiki/MD5
HMAC: http://en.wikipedia.org/wiki/HMAC

Hand-in:

A demonstration of the software.
The source files and project files should be submitted to the Ilias page of the course.

Deadline:

Two weeks (08.10.2014)

Notes:

- For this course the recommended programming language is Java, but you are free to use any other language which is suitable for the assignments.
- The assignment applications do not require a graphical interface, command-line interfaces are sufficient.
- Assignments need be presented in class to demonstrate their function. The code and presentation both count for the grade.
- For questions and further information you can contact the assistant at: yaroslav.hayduk@unine.ch