

**Analyze this set of requirements, find and categorize defects,
write questions to the Customer.**

1. Project scope

Development of a tool to eliminate encoding multiplicity in text documents stored **locally**.

Commented [A1]: RD (=Requirement Defect) – ambiguousness
What is meant under “locally - local disk, local server?”

2. Main goals

- Eliminate the necessity for manual detection and conversion of encoding in text documents.
- Decrease document-processing time by the amount needed for manual encoding detection and conversion.

3. Criteria for main goals achievement

- Full automation of encoding detection and conversion.
- Document-processing time reduction **by 1-2 minutes (average)** due to elimination the necessity for manual encoding detection and conversion.

Commented [A2]: RD – incompleteness
What are the initial and final values that should be compared to see this result?

4. Risks

- High complexity of accurate detection of text document initial encoding.

5. System characteristics

- SC-1: The application should be a console one.
- SC-2: The application should be developed using PHP (see [L-1](#) for the explanation; PHP-related details are described in [DS-1](#)).
- SC-3: The application should be a multi-platform one (taking into account [L-4](#)).

Commented [A3]: We suggest to paraphrase it into “see L-4”

6. User requirements

- See also the use cases diagram below for details.
- UR-1: Start and stop of the application.
 - UR-1.1: The application start should be performed by the following console command: “php converter.phar SOURCE_DIR DESTINATION_DIR [LOG_FILE_NAME]” (see [DS-2.1](#) for parameters description, see [DS-2.2](#), [DS-2.3](#), and [DS-2.4](#) for error messages on any misconfiguration situation).
 - UR-1.2: The application stop (shutdown) should be performed by applying Ctrl+C to the console window, which holds the running application.
- UR-2: Configuration of the application.
 - UR-2.1: The only configuration available is through command line

Commented [A4]: RD – incompleteness
Can several copies of the app be started?

Commented [A5]: RD – incompleteness
If there is a file being processed at this very moment of shutdown how should the app react to it: finish processing, shut down anyway losing the data or else?

- parameters (see [DS-2](#)).
 - UR-2.2: Target encoding for text file conversion is UTF-8 (see also [L-5](#)).
- UR-3: Application log.
 - UR-3.1: The application should output its log both to the console and to a log-file (see [DS-4](#)). Log file name should comply with the rules described in [DS-2.1](#).
 - UR-3.2: Log contents and format are described in [DS-4.1](#), the application reaction to log file presence/absence is described in [DS-4.2](#) and [DS-4.3](#) accordingly.

Commented [A6]: RD – ambiguousness
How should the app react if the input file also has UTF-8 encoding?

7. Limitations

- L-1: The application should be developed using PHP as the Customer is going to support the application with his own IT-department.
- L-2: See [DS-1](#) for PHP version and configuration details.
- L-3: PHP setup and configuration process are out of this project scope and therefore are NOT described in any product/project documentation.
- L-4: Multi-platform capabilities of the application are the next: it should work with Windows and Linux assuming that proper PHP version (see [DS-1.1](#)) works there.
- L-5: The target encoding (UTF8) is fixed. There is no option to change it.
- L-6: The [QA-1.1](#) may be violated in case of objective reasons (e.g., system overload, low-performing hardware and so on).

Commented [A7]: RD – inconsistency
PHP configuration parameter (the necessity of mbstring extension) is described in DS-1.2

Commented [A8]: RD – incompleteness
Which versions of Windows and Linux should the app be applicable with?

Commented [A9]: RD – incompleteness
We suggest including a disclaimer in the installation package informing that “for the correct functioning of the app PHP version 5.5 or higher and mbstring extension is needed

Commented [A10]: RD – incompleteness
Can you specify the exact list of reasons which allow the violation of QA -1.1.?