DCMTK - Feature #1065

Improve process of reading configuration files for specifying details of the association negotiation

2023-02-08 17:49 - Jörg Riesmeier

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Assignee:			**% Done:**	0%
Category:	Library		**Estimated time:**	0:00 hour
Target version:				
Module:	dcmdata		**Compiler:**	
Operating System:				

Description

Currently, the entries in the subsections of "TransferSyntaxes", "PresentationContexts" and "SCPSCURoleSelection" are processed in the following manner:

- The key-value pairs "key = value" require that the "key" follows a specific notation: a prefix like "PresentationContext" and suffix given by a numeric value 1, 2, 3, ...
- When processing a particular subsection of the configuration file, the entries (key-value pairs) are processed in ascending order, i.e. "PresentationContext1", "PresentationContext2", "PresentationContext3", ...
- The processing stops as soon as the expected entry is missing, e.g. "PresentationContext100". This is independent of the fact that there might be more entries in the subsection (e.g. "PresentationContext101").
- This means that the list of entries must use a numbering starting at 1 and ending after the last entry whose number is 1 greater than the previous entry.

This approach has some drawbacks, e.g. when adding new entries, not at the end but somewhere else, because of the additional requirements to use alphabetic order for the "value" part of the pair or to take the processing order of a particular networking tool into account. Or, if an existing entry (not at the end but somewhere in the middle) should be temporarily disabled by prepending a "#" at the beginning of the line.

Therefore, it is proposed to change the current approach in the following manner (which tries to be backward compatible to a certain degree):

- Instead of iterating in numeric order (see above), the entries (key-value pairs) are processed in the order of appearance in the corresponding subsection.
- That means, the name of the "key" would be arbitrary (could be "PresentationContext1", but also "PresentationContext", "PC" or anything else).
- Existing configuration files would, therefore, work as before (assuming that the lines in the subsections are ordered by the numerical suffix).
- Adding a new entry somewhere in the middle and disabling individual entries would also work (since a "#" at the beginning of a line denotes a comment).

Any comments on this?