

# Identix comments on M1/05-659, fusion data format

Date: 11/23/05

Document: M1/05-0820

| 1   | 2  | (3)   | 4                                    | 5   | (6)  | (7)                          |
|-----|--|---|--------------------------------------|---|--|------------------------------|
| RCM | Clause No./<br>Subclause No./<br>Annex<br>(e.g. 3.1) | Paragraph/<br>Figure/Table/<br>Note<br>(e.g. Table 1) | Type of<br>com-<br>ment <sup>1</sup> | Comment (justification for change)  | Proposed change  | Proposed Editors Disposition |
| 1   | 5.5.3  |   | ed                                   | The second sentence incorrectly lists the contents of a fusion information record.  | Remove specific references to face and re-write sentence to refer to present fusion data interchange format. |                              |
| 2   | 6.1  | Table 5   | te                                   | Possible statistical quantities for use in normalizing scores is open ended. The kind, "generic location parameter", can be used for a quantity not listed in Table 5. A "generic scale parameter" is not included in Table 5, but should be for the same reason.   |  |                              |
| 3   | 6.62   | Table 10  | ed                                   | The allowed values of Field 1 are stated as 0-5. It's not clear why many of the kinds from Table 5 have been excluded.  |  |                              |
| 4   | 6.7.2  | Table 11  | ed                                   | Same as above.  |  |                              |
| 5   | 6.7.2  | Table 11  | ed                                   | The allowed values of Field 2 are stated as 0-2. It's not clear why a value of 3 has been excluded.   |  |                              |
| 6   | 6.8  | Table 12  | ed                                   | Same as above.  |  |                              |
| 7   | 6.9  | Table 13  | ed                                   | Same as above.  |  |                              |
| 8   | 6.10   | Table 14  | ed                                   | Same as above.  |  |                              |
| 9   | 7  |   | te                                   | The Type 1 record is a particular case of a Type 2 record. The Type 1 record also does not include a field for specifying the distribution type which the statistical parameters describe; whether the statistics derive from impostor or genuine scores is an essential distinction.   | Remove the Type 1 record.  |                              |
| 10  | 8  |   | te                                   | The Type 2 record allows for the inclusion of "all-scores" distribution statistics, in addition to, or in replace of, impostor and genuine statistics. Statistics derived from "all-scores" are generally not useful, particularly when no additional information is provided (e.g., what is the relative frequency of the genuine scores). | Disallow the inclusion of "all-scores" statistics here and elsewhere in this format.                         |                              |
| 11  | 11.1   |   | ed                                   | The paragraph begins "A Type 4 record...", when it is actually describing a Type 5 record.  |  |                              |

<sup>1</sup> **Type of comment:** **ge** = general **te** = technical **ed** = editorial – For technical comments, please indicate whether your comment is a MAJOR or MINOR technical comment.

**NOTE** Columns 1, 2, 4, 5 are compulsory.

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| 12  | 11.2  | Table 19                                     | ed                           | The table states the allowed value for the Type field is "4", when it should be "5".   |  |                              |
| 13  | 12  |  | te                           | <p>It is possible that scores produced by a particular technology have already been normalized such that they can be interpreted in terms of false acceptance or rejection rates. Given the knowledge of this interpretation, the scores can readily be converted into a form that is useful for many flavors of fusion.</p> <p>For example, if a score, <math>s</math>, is defined in terms of false acceptance rate (FAR) as</p> $s = -\log(\text{FAR}(x)),$ <p>then <math>\text{FAR} = 10^{-s}</math> and the impostor pdf can be easily computed. To produce the score, <math>s</math>, the internally produced score, <math>x</math>, had to be mapped to an FAR value.</p> <p>If a fusion algorithm requires the FAR values associated with the input scores, then given FAR normalized scores, only the algebraic expression equating FAR with the input score is needed.</p> <p>Type 3 could be used to sample <math>10^{-s}</math>, in this example, but this introduces unnecessary sources of error and complexity.</p> | Introduce a new type to account for pre-normalized scores. |                              |
|     |   |  |                              |  |  |                              |

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