

ISO/IEC 29141:2009-12 (E)

Information technology - Biometrics - Tenprint capture using biometric application programming interface (BioAPI)

| Contents | | Page |
|--------------------|--|-------------|
| Foreword | | v |
| Introduction | | vi |
| 1 | Scope | 1 |
| 2 | Conformance | 1 |
| 3 | Normative references | 1 |
| 4 | Terms and definitions | 1 |
| 5 | Abbreviated terms | 3 |
| 6 | Requirements | 3 |
| 7 | BioAPI function calls | 4 |
| 7.1 | BioAPI_ControlUnit() | 4 |
| 7.1.1 | Usage | 4 |
| 7.1.2 | Function definition | 4 |
| 7.1.3 | Parameters | 4 |
| 7.2 | BioAPI_Capture() | 5 |
| 7.2.1 | Usage | 5 |
| 7.2.2 | Function definition | 5 |
| 7.2.3 | Parameters | 5 |
| 7.2.4 | Additional error return codes | 6 |
| 7.3 | BioAPI_QueryUnits() | 6 |
| 7.3.1 | Usage | 6 |
| 7.3.2 | Function definition | 6 |
| 7.3.3 | Parameters | 6 |
| 7.3.4 | BioAPI_UNIT_SCHEMA | 7 |
| 8 | Capture control blocks (CCB) | 9 |
| 9 | Record types and fields | 9 |
| 9.1 | Control and required fields | 9 |
| 9.2 | Image height and width | 11 |
| 9.3 | Image data | 11 |
| 9.4 | Amputated or bandaged fingers | 11 |
| 9.4.1 | Type-4 records | 11 |
| 9.4.2 | Type-14 records | 11 |
| 9.5 | Capture resolution | 12 |
| 9.6 | Image compression | 12 |
| 9.7 | Selecting images to be captured | 12 |
| 9.8 | Calculation of finger segment position | 13 |
| 9.9 | Segmentation quality | 13 |
| 9.10 | Image quality | 13 |
| 9.10.1 | General | 13 |
| 9.10.2 | Setting quality thresholds | 13 |
| 9.11 | Bits per pixel | 14 |
| 9.12 | Date printed | 14 |

| | | |
|--|--|----|
| 9.13 | Image capture equipment | 14 |
| 10 | Returned BIR | 14 |
| 10.1 | BIR header | 14 |
| 10.2 | BDB format | 15 |
| 11 | Error codes | 15 |
| 11.1 | Unable to parse | 15 |
| 11.2 | Roll capture not supported | 15 |
| 11.3 | Slap capture not supported | 15 |
| 11.4 | Segment position calculation not supported | 15 |
| 11.5 | Quality algorithm not supported | 15 |
| 11.6 | Compression algorithm not supported | 15 |
| 11.7 | Segment position calculation algorithm not supported | 16 |
| 11.8 | Image resolution not supported | 16 |
| 11.9 | Type-4 records not supported | 16 |
| 11.10 | Type-14 records not supported | 16 |
| 11.11 | Finger position not supported | 16 |
| 12 | Example capture orders | 16 |
| Annex A (informative) Example capture control blocks (CCB) for acquisition of images | | 18 |
| A.1 | Three slaps (FANC TOT) | 18 |
| A.1.1 | Type-1 record | 18 |
| A.1.2 | Type-2 record (IDC 0) | 18 |
| A.1.3 | Type-14 record (IDC 1) | 18 |
| A.1.4 | Type-14 record (IDC 2) | 19 |
| A.1.5 | Type-14 record (IDC 3) | 19 |
| A.2 | Ten plain impressions (no TOT) | 20 |
| A.2.1 | Type-1 record | 20 |
| A.2.2 | Type-2 record (IDC 0) | 20 |
| A.2.3 | Type-4 record (IDC 1) | 20 |
| A.2.4 | Type-4 record (IDC 2) | 20 |
| A.2.5 | Type-4 record (IDC 3) | 21 |
| A.2.6 | Type-4 record (IDC 4) | 21 |
| A.2.7 | Type-4 record (IDC 5) | 21 |
| A.2.8 | Type-4 record (IDC 6) | 22 |
| A.2.9 | Type-4 record (IDC 7) | 22 |
| A.2.10 | Type-4 record (IDC 8) | 22 |
| A.2.11 | Type-4 record (IDC 9) | 23 |
| A.2.12 | Type-4 record (IDC 10) | 23 |
| Annex B (informative) BioAPI calling sequence example | | 24 |