

ISO/IEC 19784-4:2011-03 (E)

Information technology - Biometric application programming interface - Part 4: Biometric sensor function provider interface

Contents		Page
Foreword		v
Introduction		vi
1	Scope	1
2	Conformance	1
3	Normative references	1
4	Terms and definitions	1
5	Symbols, abbreviated terms, data structure definitions and error codes	2
5.1	Symbols and abbreviated terms	2
5.2	Data structure definitions and error codes	2
6	Interface architecture	3
7	Selecting and loading BFPs and BioAPI_Units	4
7.1	Obtaining information about BFPs and BioAPI_Units	4
7.2	Loading BFPs	5
7.2.1	Loading BFPs when attaching to an unspecified BioAPI_Unit	5
7.2.2	Loading BFPs when attaching to a specific BioAPI_Unit	5
8	BSFPI Definition	5
8.1	BSFPI data structures	5
8.1.1	Control codes	5
8.1.2	BioSFPI_EventHandler	6
8.1.3	BioSFPI_GUI_RESPONSE	6
8.1.4	BioSFPI_GUI_PROGRESS_EVENT_HANDLER	6
8.2	BSFP Functions	7
8.2.1	BioSFPI_BSFPLoad	7
8.2.2	BioSFPI_UnitAttach	8
8.2.3	BioSFPI_UnitDetach	9
8.2.4	BioSFPI_QueryUnits	9
8.2.5	BioSFPI_Free	10
8.2.6	BioSFPI_ControlUnit	11
8.2.7	BioSFPI_Cancel	11
8.2.8	BioSFPI_SetPowerMode	12
8.2.9	BioSFPI_SetGUICallbacks	13
8.2.10	BioSFPI_QueryFormatInfo	13
8.2.11	BioSFPI_GetPackets	14
8.2.12	BioSFPI_DataTransfer	15
8.2.13	BioSFPI_SetIndicatorStatus	16
8.2.14	BioSFPI_GetIndicatorStatus	16
8.2.15	BioSFPI_CalibrateSensor	17
8.2.16	BioSFPI_SubscribeToGUIEvents	17
8.2.17	BioSFPI_UnsubscribeFromGUIEvents	18
Annex A (normative)	Imaging biometric sensor units	20

A.1	General	20
A.1.1	Bit and Byte ordering	20
A.1.2	Scan sequence	20
A.1.3	Pixel aspect ratio	20
A.1.4	Greyscale pixel depth	20
A.1.5	Colour space	20
A.1.6	Video interlacing	21
A.2	BioSFPI_BSFPIImagePropertyID	21
A.3	BioSFPI_BSFPIImagePropertySchema	21
A.4	BioSFPI_UnitImagePropertyID	22
A.5	BioSFPI_UnitImagePropertySchema	22
A.6	Image sensor functions	23
A.6.1	BioSFPI_GetImageParameters	23
A.6.2	BioSFPI_SetImageParameters	24
A.6.3	BioSFPI_Pause	25
A.6.4	BioSFPI_Play	25
Annex B (normative) Signature sensor units		27
B.1	General	27
B.1.1	Bit and byte ordering	27
B.1.2	Coordinate system	27
B.1.3	Channel inclusion field	28
B.1.4	Sequence of sample points	29
B.1.5	Sample Rate	29
B.1.6	ChannelDescriptions	29
B.2	BioSFPI_BSFPSignaturePropertyID	29
B.3	BioSFPI_BSFPSignaturePropertySchema	30
B.4	BioSFPI_UnitSignaturePropertyID	30
B.5	BioSFPI_UnitSignaturePropertySchema	31
B.6	Signature Sensor Functions	32
B.6.1	BioSFPI_GetSignatureParameters	32
B.6.2	BioSFPI_SetSignatureParameters	33
Annex C (informative) Obtaining biometric sensor data across the SFPI		35
C.1	Overall functionality	35
C.2	Fundamentals of the data transfer interfaces	36
C.3	Memory management	36
C.4	Components forming the interface	36
C.5	Implementation options for use of the data transfer interface	36
Bibliography		38