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AGREEMENT

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**Extensions for Financial Services (XFS) interface specification -
Release 3.10 - Part 68: Text Terminal Unit Device Class
Interface - Migration from Version 3.0 (CWA 14050) to Version
3.10 (this CWA) - Programmer's Reference**

This CEN Workshop Agreement has been drafted and approved by a Workshop of representatives of interested parties, the constitution of which is indicated in the foreword of this Workshop Agreement.

The formal process followed by the Workshop in the development of this Workshop Agreement has been endorsed by the National Members of CEN but neither the National Members of CEN nor the CEN Management Centre can be held accountable for the technical content of this CEN Workshop Agreement or possible conflicts with standards or legislation.

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Table of Contents

Foreword	4
1. Migration Information	6
2. Text Terminal Units	7
3. References	8
4. Info Commands	9
4.1 WFS_INF_TTU_STATUS	9
4.2 WFS_INF_TTU_CAPABILITIES	11
4.3 WFS_INF_TTU_FORM_LIST	13
4.4 WFS_INF_TTU_QUERY_FORM	14
4.5 WFS_INF_TTU_QUERY_FIELD	15
4.6 WFS_INF_TTU_KEY_DETAIL	17
5. Execute Commands	19
5.1 WFS_CMD_TTU_BEEP	19
5.2 WFS_CMD_TTU_CLEARSCREEN	20
5.3 WFS_CMD_TTU_DISPLIGHT	21
5.4 WFS_CMD_TTU_SET_LED	22
5.5 WFS_CMD_TTU_SET_RESOLUTION	23
5.6 WFS_CMD_TTU_WRITE_FORM	24
5.7 WFS_CMD_TTU_READ_FORM	25
5.8 WFS_CMD_TTU_WRITE	27
5.9 WFS_CMD_TTU_READ	29
5.10 WFS_CMD_TTU_RESET	32
5.11 WFS_CMD_TTU_DEFINE_KEYS	33
5.12 WFS_CMD_TTU_POWER_SAVE_CONTROL	35
6. Events	36
6.1 WFS_EXEE_TTU_FIELDERROR	36
6.2 WFS_EXEE_TTU_FIELDWARNING	37
6.3 WFS_EXEE_TTU_KEY	38
6.4 WFS_SRVE_TTU_DEVICEPOSITION	39
6.5 WFS_SRVE_TTU_POWER_SAVE_CHANGE	40
7. Form and Field Definitions	41
7.1 Definition Syntax	41
7.2 XFS form/media definition files in multi-vendor environments	42
7.3 Form Definition	43
7.4 Field Definition	44

8. C - Header file	46
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Foreword

This CWA is revision 3.10 of the XFS interface specification.

The CEN/ISSS XFS Workshop gathers suppliers as well as banks and other financial service companies. A list of companies participating in this Workshop and in support of this CWA is available from the CEN/ISSS Secretariat.

This CWA was formally approved by the XFS Workshop meeting on 2007-11-29. The specification is continuously reviewed and commented in the CEN/ISSS Workshop on XFS. It is therefore expected that an update of the specification will be published in due time as a CWA, superseding this revision 3.10.

The CWA is published as a multi-part document, consisting of:

Part 1: Application Programming Interface (API) - Service Provider Interface (SPI) - Programmer's Reference

Part 2: Service Classes Definition - Programmer's Reference

Part 3: Printer and Scanning Device Class Interface - Programmer's Reference

Part 4: Identification Card Device Class Interface - Programmer's Reference

Part 5: Cash Dispenser Device Class Interface - Programmer's Reference

Part 6: PIN Keypad Device Class Interface - Programmer's Reference

Part 7: Check Reader/Scanner Device Class Interface - Programmer's Reference

Part 8: Depository Device Class Interface - Programmer's Reference

Part 9: Text Terminal Unit Device Class Interface - Programmer's Reference

Part 10: Sensors and Indicators Unit Device Class Interface - Programmer's Reference

Part 11: Vendor Dependent Mode Device Class Interface - Programmer's Reference

Part 12: Camera Device Class Interface - Programmer's Reference

Part 13: Alarm Device Class Interface - Programmer's Reference

Part 14: Card Embossing Unit Device Class Interface - Programmer's Reference

Part 15: Cash-In Module Device Class Interface - Programmer's Reference

Part 16: Card Dispenser Device Class Interface - Programmer's Reference

Part 17: Barcode Reader Device Class Interface - Programmer's Reference

Part 18: Item Processing Module Device Class Interface - Programmer's Reference

Parts 19 - 28: Reserved for future use.

Parts 29 through 47 constitute an optional addendum to this CWA. They define the integration between the SNMP standard and the set of status and statistical information exported by the Service Providers.

Part 29: XFS MIB Architecture and SNMP Extensions - Programmer's Reference

Part 30: XFS MIB Device Specific Definitions - Printer Device Class

Part 31: XFS MIB Device Specific Definitions - Identification Card Device Class

Part 32: XFS MIB Device Specific Definitions - Cash Dispenser Device Class

Part 33: XFS MIB Device Specific Definitions - PIN Keypad Device Class

Part 34: XFS MIB Device Specific Definitions - Check Reader/Scanner Device Class

Part 35: XFS MIB Device Specific Definitions - Depository Device Class

Part 36: XFS MIB Device Specific Definitions - Text Terminal Unit Device Class

Part 37: XFS MIB Device Specific Definitions - Sensors and Indicators Unit Device Class

Part 38: XFS MIB Device Specific Definitions - Camera Device Class

Part 39: XFS MIB Device Specific Definitions - Alarm Device Class

Part 40: XFS MIB Device Specific Definitions - Card Embossing Unit Class

Part 41: XFS MIB Device Specific Definitions - Cash-In Module Device Class

Part 42: Reserved for future use.

Part 43: XFS MIB Device Specific Definitions - Vendor Dependent Mode Device Class

Part 44: XFS MIB Application Management

Part 45: XFS MIB Device Specific Definitions - Card Dispenser Device Class

Part 46: XFS MIB Device Specific Definitions - Barcode Reader Device Class

Part 47: XFS MIB Device Specific Definitions - Item Processing Module Device Class

Parts 48 - 60 are reserved for future use.

Part 61: Application Programming Interface (API) - Service Provider Interface (SPI) - Migration from Version 3.0 (CWA 14050) to Version 3.10 (this CWA) - Programmer's Reference

Part 62: Printer Device Class Interface - Migration from Version 3.0 (CWA 14050) to Version 3.10 (this CWA) - Programmer's Reference

Part 63: Identification Card Device Class Interface - Migration from Version 3.02 (CWA 14050) to Version 3.10 (this CWA) - Programmer's Reference

Part 64: Cash Dispenser Device Class Interface - Migration from Version 3.0 (CWA 14050) to Version 3.10 (this CWA) - Programmer's Reference

Part 65: PIN Keypad Device Class Interface - Migration from Version 3.03 (CWA 14050) to Version 3.10 (this CWA) - Programmer's Reference

Part 66: Check Reader/Scanner Device Class Interface - Migration from Version 3.0 (CWA 14050) to Version 3.10 (this CWA) - Programmer's Reference

Part 67: Depository Device Class Interface - Migration from Version 3.0 (CWA 14050) to Version 3.10 (this CWA) - Programmer's Reference

Part 68: Text Terminal Unit Device Class Interface - Migration from Version 3.0 (CWA 14050) to Version 3.10 (this CWA) - Programmer's Reference

Part 69: Sensors and Indicators Unit Device Class Interface - Migration from Version 3.01 (CWA 14050) to Version 3.10 (this CWA) - Programmer's Reference

Part 70: Vendor Dependent Mode Device Class Interface - Migration from Version 3.0 (CWA 14050) to Version 3.10 (this CWA) - Programmer's Reference

Part 71: Camera Device Class Interface - Migration from Version 3.0 (CWA 14050) to Version 3.10 (this CWA) - Programmer's Reference

Part 72: Alarm Device Class Interface - Migration from Version 3.0 (CWA 14050) to Version 3.10 (this CWA) - Programmer's Reference

Part 73: Card Embossing Unit Device Class Interface - Migration from Version 3.0 (CWA 14050) to Version 3.10 (this CWA) - Programmer's Reference

Part 74: Cash-In Module Device Class Interface - Migration from Version 3.02 (CWA 14050) to Version 3.10 (this CWA) - Programmer's Reference

In addition to these Programmer's Reference specifications, the reader of this CWA is also referred to a complementary document, called Release Notes. The Release Notes contain clarifications and explanations on the CWA specifications, which are not requiring functional changes. The current version of the Release Notes is available online from <http://www.cen.eu/iss/Workshop/XFS>.

The information in this document represents the Workshop's current views on the issues discussed as of the date of publication. It is furnished for informational purposes only and is subject to change without notice. CEN/ISSS makes no warranty, express or implied, with respect to this document.

This CEN Workshop Agreement is publicly available as a reference document from the National Members of CEN : AENOR, AFNOR, ASRO, BDS, BSI, CSNI, CYS, DIN, DS, ELOT, EVS, IBN, IPQ, IST, LVS, LST, MSA, MSZT, NEN, NSAI, ON, PKN, SEE, SIS, SIST, SFS, SN, SNV, SUTN and UNI.

Comments or suggestions from the users of the CEN Workshop Agreement are welcome and should be addressed to the CEN Management Centre.

1. Migration Information

XFS 3.10 has been designed to minimize backwards compatibility issues. This document highlights the changes made to the TTU device class between version 3.0 and 3.10, by highlighting the additions and deletions to the text.

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2. Text Terminal Units

This specification describes the functionality of the services provided by text terminal unit (TTU) services under XFS, by defining the service-specific commands that can be issued, using the **WFSGetInfo**, **WFSAsyncGetInfo**, **WFSExecute** and **WFSAsyncExecute** functions.

This section describes the functions provided by a generic Text Terminal Unit (TTU) service. A Text Terminal Unit is a text i/o device, which applies both to ATM operator panels and to displays incorporated in devices such as PIN pads and printers. This service allows for the following categories of functions:

- Forms oriented input and output
- Direct display output
- Keyboard input
- LED settings and control

All position indexes are zero based, where column zero, row zero is the top-leftmost position.

If the device has no shift key, the `WFS_CMD_TTU_READ_FORM` and `WFS_CMD_TTU_READ` commands will return only upper case letters. If the device has a shift key, these commands return upper and lower case letters as governed by the user's use of the shift key.

3. References

1. XFS Application Programming Interface (API)/Service Provider Interface (SPI), Programmer's Reference Revision 3.10

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