

DIN CWA 14050-1:2001-04 (E)

Extensions for Financial Services (XFS) interface specification - Release 3.0 - Part 1: Application programming interface (API); Service Provider Interface (SPI); Programmer's Reference (English version CWA_14050-1:2000)

Table of Contents

Foreword	5
1. Background to Release 3.0.....	7
2. References	8
3. XFS (Extensions for Financial Services) Overview.....	9
3.1 ARCHITECTURE	10
3.2 API AND SPI SUMMARY	12
3.3 DEVICE CLASSES	13
4. Architectural and Implementation Issues	14
4.1 THE XFS MANAGER	15
4.2 SERVICE PROVIDERS	16
4.2.1 Service Provider Functionality.....	16
4.2.2 Service Provider "Packaging".....	16
4.3 ASYNCHRONOUS, SYNCHRONOUS AND IMMEDIATE FUNCTIONS.....	17
4.3.1 Asynchronous Functions	17
4.3.2 Synchronous Functions	17
4.3.3 Immediate Functions	18
4.4 PROCESSING API FUNCTIONS.....	19
4.5 OPENING A SESSION	20
4.6 CLOSING A SESSION.....	21
4.7 CONFIGURATION INFORMATION	22
4.8 EXCLUSIVE SERVICE AND DEVICE ACCESS	26
4.8.1 Lock Policy for Independent Devices.....	26
4.8.2 Compound Devices.....	27
4.9 TIMEOUT	29
4.10 FUNCTION STATUS RETURN	30
4.11 NOTIFICATION MECHANISMS — REGISTERING FOR EVENTS.....	31
4.12 APPLICATION PROCESSES, THREADS AND BLOCKING FUNCTIONS	33
4.13 VENDOR DEPENDENT MODE	35
4.14 MEMORY MANAGEMENT.....	36
5. Application Programming Interface (API) Functions	38
5.1 WFSCANCELASYNCREQUEST	40
5.2 WFSCANCELBLOCKINGCALL	41
5.3 WFSCLEANUP	42
5.4 WFSCLOSE	43
5.5 WFSASYNC_CLOSE.....	44
5.6 WFSCREATEAPPHANDLE	45

5.7	WFSDEREGISTER	46
5.8	WFSASYNCDEREGISTER.....	47
5.9	WFSDESTROYAPPHANDLE	49
5.10	WFSEXECUTE	50
5.11	WFSASYNCEXECUTE	52
5.12	WFSFREERESULT	54
5.13	WFSGETINFO	55
5.14	WFSASYNCGETINFO	57
5.15	WFSISBLOCKING.....	59
5.16	WFSLOCK.....	60
5.17	WFSASYNCLOCK	62
5.18	WFSOPEN.....	64
5.19	WFSASYNCOPEN	67
5.20	WFSREGISTER	70
5.21	WFSASYNCREGISTER.....	72
5.22	WFSSETBLOCKINGHOOK	74
5.23	WFSSTARTUP	75
5.24	WFSUNHOOKBLOCKINGHOOK	77
5.25	WFSUNLOCK.....	78
5.26	WFSASYNCUNLOCK	79
6.	Service Provider Interface (SPI) Functions.....	80
6.1	WFCANCELASYNCREQUEST	81
6.2	WFCLOSE	82
6.3	WFPDEREGISTER	83
6.4	WFPEXECUTE	85
6.5	WFPGETINFO	87
6.6	WFPLOCK	89
6.7	WFPOPEN.....	90
6.8	WFPREGISTER	93
6.9	WFPSSETTRACELEVEL	94
6.10	WFPUNLOADSERVICE.....	96
6.11	WFPUNLOCK.....	97
7.	Support Functions.....	98
7.1	WFMALLOCATEBUFFER.....	98
7.2	WFMALLOCATEMORE.....	99
7.3	WFMFREEBUFFER	100
7.4	WFMGETTRACELEVEL	101
7.5	WFMKILLTIMER	102
7.6	WFMOUTPUTTRACEDATA.....	103

7.7	WFMSRELEASEDLL.....	104
7.8	WFMSSETTIMER	105
7.9	WFMSSETTRACELEVEL.....	106
8.	Configuration Functions.....	108
8.1	WFMCLOSEKEY	108
8.2	WFMCREATEKEY	109
8.3	WFMDDELETEKEY	110
8.4	WFMDDELETEVALUE.....	111
8.5	WFMENUMKEY	112
8.6	WFMENUMVALUE.....	113
8.7	WFMOPENKEY.....	114
8.8	WFMQUERYVALUE	115
8.9	WFMSSETVALUE.....	116
9.	Data Structures.....	117
9.1	WFSRESULT	117
9.2	WFSVERSION	118
10.	Messages	119
10.1	COMMAND COMPLETIONS AND EVENTS	119
10.1.1	<i>Command Completion Messages</i>	<i>119</i>
10.1.2	<i>Event Messages</i>	<i>119</i>
10.2	TIMER EVENTS	120
10.3	DEVICE STATUS CHANGES.....	121
10.4	UNDELIVERABLE MESSAGES.....	122
10.5	APPLICATION DISCONNECT	123
10.6	HARDWARE AND SOFTWARE ERRORS.....	124
10.7	LOCK REQUESTED.....	126
10.8	VERSION NEGOTIATION FAILURES	127
11.	Error Codes	128
12.	Appendix A - Planned Enhancements and Extensions	131
12.1	EVENT AND SYSTEM MANAGEMENT.....	132
13.	Appendix B - XFS Workshop Contacts	133
14.	Appendix D - C-Header files	134
14.1	XFSAPI.H	134
14.2	XFSADMIN.H	139
14.3	XFSCONF.H.....	140
14.4	XFSSPI.H	141