

# DIN CWA 14050-19:2001-04 (E)

Extensions for Financial Services (XFS) interface specification - Release 3.0 - Part 19: Cash dispenser device class interface; Migration from Version 2.0 (see CWA\_13449) to Version 3.0 (this CWA); Programmer's reference (English Version 14050-19:2000)

---

## Table of Contents

---

<b>Foreword</b> .....	<b>5</b>
<b>1. General</b> .....	<b>7</b>
<b>2. New Chapters</b> .....	<b>7</b>
2.1. References.....	7
2.2. ATM Cash In Transaction Flow – Application Guidelines .....	7
2.3. Rules for Cash Unit Exchange.....	7
<b>3. CDM</b> .....	<b>8</b>
3.1. Info Commands moved to the CIM specification .....	8
3.2. New Info Commands .....	8
3.3. Info Commands removed.....	8
3.3.1. WFS_INF_CDM_TELLER_POSITIONS .....	8
3.4. Changes to Existing Info Commands .....	8
3.4.1. WFS_INF_CDM_STATUS .....	8
3.4.2. WFS_INF_CDM_CAPABILITIES.....	11
3.4.3. WFS_INF_CDM_CASH_UNIT_INFO .....	14
3.4.4. WFS_INF_CDM_TELLER_INFO .....	18
3.4.5. WFS_INF_CDM_CURRENCY_EXP .....	20
3.4.6. WFS_INF_CDM_MIX_TYPES .....	20
3.4.7. WFS_INF_CDM_MIX_TABLE.....	21
3.4.8. WFS_INF_CDM_PRESENT_STATUS .....	22
3.5. Execute Commands moved to the CIM specification .....	23
3.5.1. WFS_CMD_CDM_CASH_IN .....	23
3.5.2. WFS_CMD_CDM_CASH_IN_START .....	23
3.5.3. WFS_CMD_CDM_CASH_IN_END.....	23
3.5.4. WFS_CMD_CDM_CASH_IN_ROLLBACK.....	23
3.6. New Execute Commands .....	24
3.6.1. WFS_CMD_CDM_COUNT .....	24
3.6.2. WFS_CMD_CDM_RESET.....	26
3.6.3. WFS_CMD_CDM_TEST_CASH_UNITS.....	27
3.7. Execute Command removed .....	28
3.7.1. WFS_CMD_CDM_CHECK_VANDALISM.....	28
3.7.2. WFS_CMD_CDM_SET_TELLER_POSITIONS.....	28
3.8. Changes to existing Execute Commands .....	28
3.8.1. WFS_CMD_CDM_DENOMINATE .....	28
3.8.2. WFS_CMD_CDM_DISPENSE .....	30
3.8.3. WFS_CMD_CDM_PRESENT .....	33
3.8.4. WFS_CMD_CDM_REJECT.....	34
3.8.5. WFS_CMD_CDM_RETRACT.....	35
3.8.6. WFS_CMD_CDM_OPEN_SHUTTER .....	36
3.8.7. WFS_CMD_CDM_CLOSE_SHUTTER .....	37
3.8.8. WFS_CMD_CDM_SET_TELLER_INFO.....	37
3.8.9. WFS_CMD_CDM_SET_CASH_UNIT_INFO .....	38
3.8.10. WFS_CMD_CDM_START_EXCHANGE .....	39
3.8.11. WFS_CMD_CDM_END_EXCHANGE.....	41

3.8.12.	WFS_CMD_CDM_OPEN_SAFE_DOOR.....	42
3.8.13.	WFS_CMD_CDM_CALIBRATE_CASH_UNIT.....	42
3.8.14.	WFS_CMD_CDM_SET_MIX_TABLE.....	43
<b>3.9.</b>	<b>Events moved to the CIM specification.....</b>	<b>43</b>
3.9.1.	WFS_EXEE_CDM_INPUTREFUSE.....	43
<b>3.10.</b>	<b>New Events.....</b>	<b>44</b>
3.10.1.	WFS_SRVE_CDM_COUNTS_CHANGED.....	44
3.10.2.	WFS_EXEE_CDM_INCOMPLETEDISPENSE.....	44
3.10.3.	WFS_EXEE_CDM_NOTEERROR.....	44
3.10.4.	WFS_SRVE_CDM_ITEMSPRESENTED.....	45
3.10.5.	WFS_SRVE_CDM_MEDIADETECTED.....	45
<b>3.11.</b>	<b>Events removed.....</b>	<b>45</b>
3.11.1.	WFS_SRVE_CDM_SAFEDOORLOCKED.....	45
<b>3.12.</b>	<b>Changes to existing Events.....</b>	<b>45</b>
3.12.1.	WFS_SRVE_CDM_ITEMSTAKEN (former WFS_SRVE_CDM_BILLSTAKEN).....	45
3.12.2.	WFS_SRVE_CDM_SAFEDOOROPEN.....	45
3.12.3.	WFS_SRVE_CDM_SAFEDOORCLOSED.....	46
3.12.4.	WFS_SRVE_CDM_CASHUNITINFOCHANGED.....	46
3.12.5.	WFS_SRVE_CDM_TELLERINFOCHANGED.....	46
3.12.6.	WFS_EXEE_CDM_DELAYEDDISPENSE.....	46
3.12.7.	WFS_EXEE_CDM_STARTDISPENSE.....	47
3.12.8.	WFS_EXEE_CDM_CASHUNITERROR.....	47
3.12.9.	WFS_EXEE_CDM_PARTIALDISPENSE.....	47
3.12.10.	WFS_EXEE_CDM_SUBDISPENSEOK.....	48
<b>3.13.</b>	<b>New Sections.....</b>	<b>48</b>
3.13.1.	Sub-Dispensing Command Flow.....	48
3.13.2.	Rules for Cash Unit Exchange.....	48
<b>4.</b>	<b>CIM.....</b>	<b>49</b>
<b>4.1.</b>	<b>New Info Commands.....</b>	<b>49</b>
4.1.1.	WFS_INF_CIM_BANKNOTE_TYPES.....	49
4.1.2.	WFS_INF_CIM_CASH_IN_STATUS.....	49
<b>4.2.</b>	<b>Changes to Info Commands which previously existed in the CDM.....</b>	<b>50</b>
4.2.1.	WFS_INF_CIM_STATUS.....	50
4.2.2.	WFS_INF_CIM_CAPABILITIES.....	54
4.2.3.	WFS_INF_CIM_CASH_UNIT_INFO.....	56
4.2.4.	WFS_INF_CIM_TELLER_INFO.....	61
4.2.5.	WFS_INF_CIM_CURRENCY_EXP.....	62
<b>4.3.</b>	<b>New Execute Commands.....</b>	<b>63</b>
4.3.1.	WFS_CMD_CIM_RESET.....	63
4.3.2.	WFS_CMD_CIM_CONFIGURE_CASH_IN_UNITS.....	64
4.3.3.	WFS_CMD_CIM_CONFIGURE_NOTETYPES.....	65
<b>4.4.</b>	<b>Changes To Execute Commands which previously existed in the CDM.....</b>	<b>65</b>
4.4.1.	WFS_CMD_CIM_RETRACT.....	65
4.4.2.	WFS_CMD_CIM_CASH_IN.....	67
4.4.3.	WFS_CMD_CIM_OPEN_SHUTTER.....	68
4.4.4.	WFS_CMD_CIM_SET_TELLER_INFO.....	69
4.4.5.	WFS_CMD_CIM_SET_CASH_UNIT_INFO.....	70
4.4.6.	WFS_CMD_CIM_START_EXCHANGE.....	71
4.4.7.	WFS_CMD_CIM_END_EXCHANGE.....	74
4.4.8.	WFS_CMD_CIM_OPEN_SAFE_DOOR.....	74
4.4.9.	WFS_CMD_CIM_CASH_IN_START.....	75
4.4.10.	WFS_CMD_CIM_CASH_IN_END.....	76
4.4.11.	WFS_CMD_CIM_CASH_IN_ROLLBACK.....	76
4.4.12.	WFS_CMD_CIM_RESET.....	77

<b>4.5. New Events.....</b>	<b>78</b>
4.5.1. WFS_SRVE_CIM_COUNTS_CHANGED .....	78
4.5.2. WFS_SRVE_CIM_ITEMSPRESENTED.....	79
4.5.3. WFS_SRVE_CIM_ITEMSINSERTED .....	79
4.5.4. WFS_EXEE_CIM_NOTEERROR .....	79
4.5.5. WFS_EXEE_CIM_SUBCASHIN.....	79
4.5.6. WFS_SRVE_CIM_MEDIADETECTED.....	80
<b>4.6. Changes to Events which previously existed in the CDM.....</b>	<b>80</b>
4.6.1. WFS_SRVE_CIM_ITEMSTAKEN (former WFS_SRVE_CDM_BILLSTAKEN).....	80
4.6.2. WFS_SRVE_CIM_CASHUNITINFOCHANGED.....	80
4.6.3. WFS_SRVE_CIM_TELLERINFOCHANGED .....	80
4.6.4. WFS_EXEE_CIM_CASHUNITERROR.....	81
4.6.5. WFS_EXEE_CIM_INPUTREFUSE.....	81
<b>5. Change to CDM C-Header file.....</b>	<b>82</b>