TOSHIBA

TOSHIBA POS Terminal

ST-A10/ST-A20/ST-B10/ST-B20

Cash Drawer Application Programmer's Guide
Toshiba TEC JavaPOS

Second Edition: Jun 16, 2010

TOSHIBA TEC CORPORATION

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Cash Drawer Application Programmer's Guide

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	Jul 18, 2008	---	Original issue
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Introduction

The Cash Drawer Application Programmer's Guide (hereinafter referred to as "this manual") was documented in accordance with the "UnifiedPOS Specifications Version 1.11" (hereinafter refered to as "UPOS Specification") which was published by the UnifiedPOS Committee for the purpose of standardization. This manual mainly describes the specifications which are different from those described in the UPOS Specification and which are not described in it because they are Toshiba TEC's own specifications. For specifications not provided in this manual, please refer to the UPOS Specification.

Unless otherwise specified, this manual focuses on DeviceService.

The UPOS Specification can be downloaded from the following web site:

> ARTS Home Page: http://www.nrf-arts.org/

Target Reader of This Manual

This document assumes that the reader is familiar with the following:
- General characteristics of POS peripheral devices
- General characteristics of Toshiba POS terminals and their peripheral devices
- General features of Windows and Linux
- Java terminology and architecture

Notes

Before reading this manual, please note the following:
- It is prohibited to use or duplicate a part or whole of this manual without the permission of Toshiba TEC Corporation.
- This manual is subject to change without prior notice.

1. CashDrawer

1.1 CashDrawer JavaPOS Device ["TECCashDrawer"]

A package name of this Device Service is as follows:
"jpos.toshibatec.cashdrawer"
In addition to the TECCashDrawer Service, this package also provides the TECCashDrawerEx Service.

1.1.1 Supported Operating Systems

This Device Service supports the following operating systems.
- Windows 2000
- Windows Embedded for Point of Service1.1(WEPOS1.1)
- Windows XP Professional
- Windows Vista
- SUSE Linux Enterprise Desktop 10 SP1
- SUSE Linux Enterprise Desktop 11

1.1.2 Supported JavaVM

This Device Service runs on the following JavaVM.
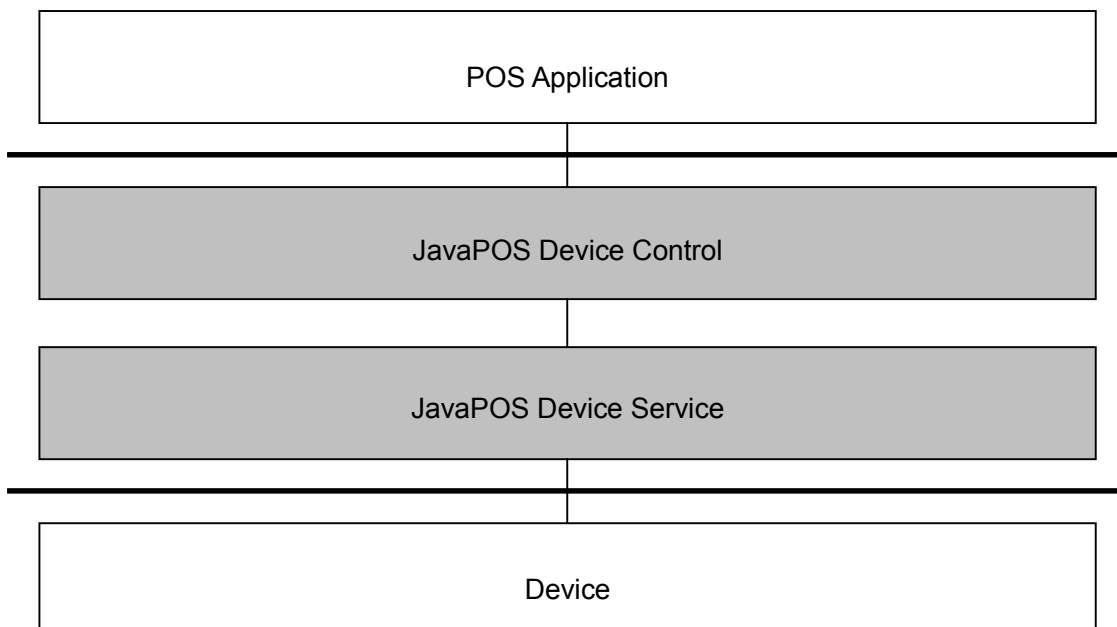- Java2 Runtime Environment v1.4.2

1.1.3 Supported Device

This Device Service supports the following device.
- DRWST-50 Cash Drawer

1.1.4 Architecture Overview

The JavaPOS Device provides an Application Programming Interface (API) for the POS Application to communicate with the Device.

```
┌─────────────────────────────────────────┐
│                                         │
│            POS Application               │
│                                         │
└─────────────────────────────────────────┘
═══════════════════════════════════════════
┌─────────────────────────────────────────┐
│                                         │
│         JavaPOS Device Control           │
│                                         │
└─────────────────────────────────────────┘

┌─────────────────────────────────────────┐
│                                         │
│         JavaPOS Device Service           │
│                                         │
└─────────────────────────────────────────┘
═══════════════════════════════════════════
┌─────────────────────────────────────────┐
│                                         │
│                 Device                   │
│                                         │
└─────────────────────────────────────────┘
```

┌──────────────┐
│   │ : The gray area indicates the JavaPOS Device.
└──────────────┘

1.1.5 Properties

The Cash Drawer Device properties are as follows.

Common Property	Enable Condition
AutoDisable	Not supported
CapCompareFirmwareVersion	open
CapPowerReporting	open
CapStatisticsReporting	open
CapUpdateFirmware	open
CapUpdateStatistics	open
CheckHealthText	open
Claimed	open
DataCount	Not supported
DataEventEnabled	Not supported
DeviceEnabled	open
FreezeEvents	open
OutputID	Not supported
PowerNotify	open
PowerState	open
State	
DeviceControlDescription	
DeviceControlVersion	
DeviceServiceDescription	open
DeviceServiceVersion	open
PhysicalDeviceDescription	open
PhysicalDeviceName	open
Specific Property	**Enable Condition**
CapStatus	open
CapStatusMultiDrawerDetect	open
DrawerOpened	open & enable

Table 1 CashDrawer JavaPOS Device – Property List

1.1.6 Methods

The Cash Drawer Device methods are as follows.

Common Method	Requirement
open	
close	open
claim	open
release	open & claim
checkHealth	open & enable **(*1)**
clearInput	Not supported
clearInputProperties	Not supported
clearOutput	Not supported
directIO	open
compareFirmwareVersion	open, claim, & enable
resetStatistics	open, claim, & enable
retrieveStatistics	open, claim, & enable
updateFirmware	open, claim, & enable
updateStatistics	open, claim, & enable
Specific Method	**Requirement**
openDrawer	open & enable **(*1)**
waitForDrawerClose	open & enable **(*1)**

(*1) There must be no other applications which have an exclusive access to the cash drawer.

Table 2 CashDrawer JavaPOS Device – Method List

1.1.7 Events

This Device Service throws the following events.

Event	Remarks
DataEvent	Not supported
DirectIOEvent	Not supported
ErrorEvent	Not supported
OutputCompleteEvent	Not supported
StatusUpdateEvent	

Table 3 CashDrawer JavaPOS Device – Event List

1.1.8 Exceptions

This Device Service throws the following exceptions.

Exception	Remarks
JposException	Exceptions are thrown when method execution or a property setting failed, or a process error occurred.

Table 4 CashDrawer JavaPOS Device – Exception List

1.1.8.1 JposException Specifications

Syntax: JposException(int errorCode);
JposException(int errorCode, int errorCodeExtended);
JposException(int errorCode, String description);
JposException(int errorCode, int errorCodeExtended, String description);
JposException(int errorCode, String description, Exception origException);
JposException(int errorCode, int errorCodeExtended, String description,
Exception origException);

1.1.9 Log

This Device Service outputs a log using Commons Logging.
Depending on a situation, a log at either "INFO", "WARN", or "ERROR" level is output.

1.1.9.1 Log at INFO Level

A log at INFO level is output to check performance at a start and end of a method and a start and end of a property setting and when an event is thrown.

1.1.9.2 Log at WARN Level

A log at WARN level is output when an error, which is so minor that there is no need to throw an exception, has occurred. For example, the Device operates using a default value in the module because an unexpected value has been specified to jpos.xml.

1.1.9.3 Log at ERROR Level

A log at ERROR level is output when a process in operation stops due to an error. Usually, this type of log is output when an exception is thrown.

1.2 TEC CashDrawer JavaPOS Device ["DRWST50"]

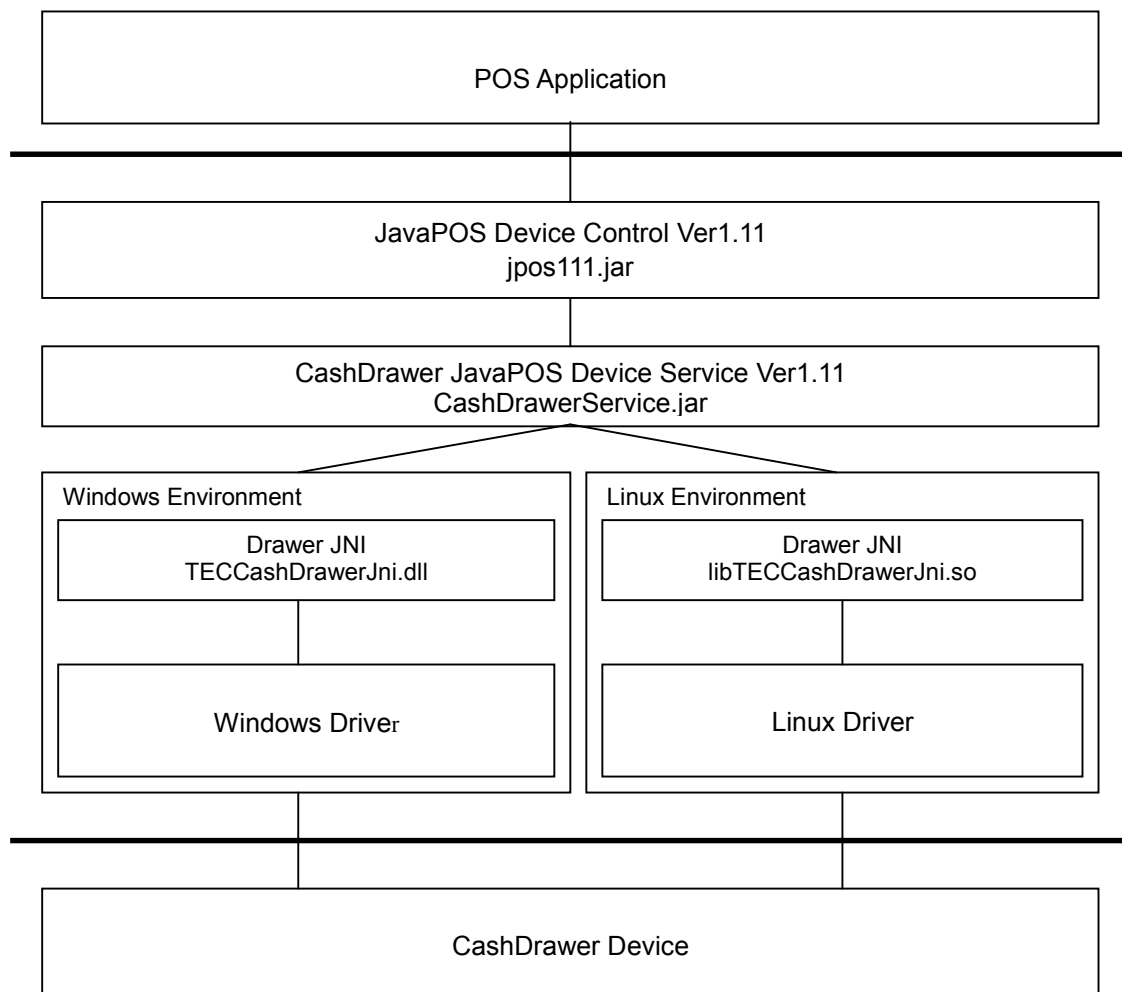### 1.2.1 Supported Device

The DRWST50 of this Device Service supports the following devices provided by Toshiba TEC.
- CashDrawer device attached to the ST-A10
  DRWST-50 Cash Drawer
- CashDrawer device attached to the ST-A20
  DRWST-50 Cash Drawer

1.2.2 Architecture Structure

The CashDrawer JavaPOS Device uses some software to perform functions.
The software components shown below are required to build an execution environment.

```
┌─────────────────────────────────────────────────────────┐
│                     POS Application                      │
└─────────────────────────────────────────────────────────┘
─────────────────────────────────────────────────────────────
┌─────────────────────────────────────────────────────────┐
│              JavaPOS Device Control Ver1.11              │
│                       jpos111.jar                        │
└─────────────────────────────────────────────────────────┘
┌─────────────────────────────────────────────────────────┐
│           CashDrawer JavaPOS Device Service Ver1.11      │
│                   CashDrawerService.jar                  │
└─────────────────────────────────────────────────────────┘
┌──────────────────────────┐   ┌──────────────────────────┐
│  Windows Environment      │   │  Linux Environment        │
│  ┌────────────────────┐   │   │  ┌────────────────────┐   │
│  │    Drawer JNI      │   │   │  │    Drawer JNI      │   │
│  │ TECCashDrawerJni.dll│  │   │  │ libTECCashDrawerJni.so│ │
│  └────────────────────┘   │   │  └────────────────────┘   │
│  ┌────────────────────┐   │   │  ┌────────────────────┐   │
│  │   Windows Driver   │   │   │  │    Linux Driver    │   │
│  └────────────────────┘   │   │  └────────────────────┘   │
└──────────────────────────┘   └──────────────────────────┘
─────────────────────────────────────────────────────────────
┌─────────────────────────────────────────────────────────┐
│                     CashDrawer Device                    │
└─────────────────────────────────────────────────────────┘
```

1.2.3 Supported Functions

The DRWST50 functions, supported/not supported by this Device Service, are as follows:

Function	Supported or Not
Power status notification	Not supported
Accumulation of statistics	Not supported
Update of statistics	Not supported
Update of firmware	Not supported
Comparison of firmware version	Not supported
Open/close status report of cash drawer	Supported
Open/close status report of cash drawer in multiple cash drawer configuration	Not supported

Table 5 CashDrawer JavaPOS Device(DRWST50) - Functions

1.2.4 Property Specifications

1.2.4.1 Initial Value of DRWST50 Properties (when opening the Service)

The initial value of each DRWST50 property is as follows:

Common Property	Value
AutoDisable	
CapCompareFirmwareVersion	false
CapPowerReporting	JPOS_PR_NONE
CapStatisticsReporting	false
CapUpdateFirmware	false
CapUpdateStatistics	false
CheckHealthText	""
Claimed	false
DataCount	
DataEventEnabled	
DeviceEnabled	false
FreezeEvents	false
OutputID	
PowerNotify	JPOS_PN_DISABLED
PowerState	JPOS_PS_UNKNOWN
State	JPOS_S_IDLE
DeviceControlDescription	"JavaPOS Cash Drawer Device Control"
DeviceControlVersion	"1011000"
DeviceServiceDescription	"TEC JavaPOS Cash Drawer Device Service"
DeviceServiceVersion	"1011XXX" **(*1)**
PhysicalDeviceDescription	"TEC DRWST-50 Cash Drawer "
PhysicalDeviceName	"DRWST-50"
Exclusive Property	**Value**
CapStatus	true
CapStatusMultiDrawerDetect	false
DrawerOpened	false

(*1) Build version is indicated as "XXX" because this manual may not be revised as soon as the module is updated.

Table 6 CashDrawer JavaPOS Device(DRWST50) – Property Initial Value List

1.2.4.2 Details of Properties

This section details the properties of the DRWST50.

1.2.4.2.1 Common Properties

CapCompareFirmwareVersion Property

Type

> **boolean CapCompareFirmwareVersion;**

Mutability

> **Read Only**

Remarks

> Always set to FALSE because this function is not supported by the Device.

Exception

> In case of an error when this property is accessed, a Java exception is thrown.

ErrorCode & ErrorCodeExtended	Meaning	Error Handling
JPOS_E_CLOSED,0	The Device has been closed.	Try again after executing the open method.

CapPowerReporting Property

Type

boolean CapPowerReporting;

Mutability

Read Only

Remarks

Always set to JPOS_PR_NONE because this function is not supported by the Device.

Exception

In case of an error when this property is accessed, a Java exception is thrown.

ErrorCode & ErrorCodeExtended	Meaning	Error Handling
JPOS_E_CLOSED,0	The Device has been closed.	Try again after executing the open method.

CapStatisticsReporting Property

Type

boolean CapStatisticsReporting;

Mutability

Read Only

Remarks

Always set to FALSE because this function is not supported by the Device.

Exception

In case of an error when this property is accessed, a Java exception is thrown.

ErrorCode & ErrorCodeExtended	Meaning	Error Handling
JPOS_E_CLOSED,0	The Device has been closed.	Try again after executing the open method.

CapUpdateFirmware Property

Type

boolean CapUpdateFirmware;

Mutability

Read Only

Remarks

Always set to FALSE because this function is not supported by the Device.

Exception

In case of an error when this property is accessed, a Java exception is thrown.

ErrorCode & ErrorCodeExtended	Meaning	Error Handling
JPOS_E_CLOSED,0	The Device has been closed.	Try again after executing the open method.

CapUpdateStatistics Property

Type

boolean CapUpdateStatistics;

Mutability

Read Only

Remarks

Always set to FALSE because this function is not supported by the Device.

Exception

In case of an error when this property is accessed, a Java exception is thrown.

ErrorCode & ErrorCodeExtended	Meaning	Error Handling
JPOS_E_CLOSED,0	The Device has been closed.	Try again after executing the open method.

CheckHealthText Property

Type

String CheckHealthText;

Mutability

Read Only

Remarks

Holds the result of the most recent call to the checkHealth method.

A CheckHealthText property value is initialized to empty string by the open method.

Exception

In case of an error when this property is accessed, a Java exception is thrown.

ErrorCode & ErrorCodeExtended	Meaning	Error Handling
JPOS_E_CLOSED,0	The Device has been closed.	Try again after executing the open method.

Claimed Property

Type

boolean Claimed;

Mutability

Read Only

Remarks

If TRUE, an exclusive access to the Device has been obtained.

If FALSE, the Device is released for sharing with other applications. A Claimed property value is initialized to FALSE by the **open** method.

Exception

In case of an error when this property is accessed, a Java exception is thrown.

ErrorCode & ErrorCodeExtended	Meaning	Error Handling
JPOS_E_CLOSED,0	The Device has been closed.	Try again after executing the open method.

DeviceEnabled Property

Type

boolean DeviceEnabled;

Mutability

Read / Write

Remarks

If TRUE, the Device is enabled.

If FALSE, the Device is disabled.

Before using the Device, the application must set this property to TRUE.

This property is initialized to FALSE by the **open** method.

Exception

In case of an error when this property is accessed, a Java exception is thrown.

ErrorCode & ErrorCodeExtended	Meaning	Error Handling
JPOS_E_CLOSED,0	The Device has been closed.	Try again after executing the open method.
JPOS_E_NOEXIST,0	Loading of the JNI library failed.	Check the JNI library.

FreezeEvents Property

Type

    boolean FreezeEvents;

Mutability

    Read / Write

Remarks

    If TRUE, the Control does not deliver events.

    The Control holds the events until the FreezeEvents state is cleared.

    If FALSE, the Control delivers events. If there are some events which have been held in a **FreezeEvents** state, changing this property to FALSE will allow these events to be delivered.

    If an interruption by an event is not desirable, the application can choose whether or not the event is to be frozen.

    This property is initialized to FALSE by the **open** method.

Exception

    In case of an error when this property is accessed, a Java exception is thrown.

ErrorCode & ErrorCodeExtended	Meaning	Error Handling
JPOS_E_CLOSED,0	The Device has been closed.	Try again after executing the open method.

PowerNotify Property

Type

    int PowerNotify;

Mutability

    Read / Write

Remarks

    Always set to JPOS_PN_DISABLED because this function is not supported by the Device.

Exception

    In case of an error when this property is accessed, a Java exception is thrown.

ErrorCode & ErrorCodeExtended	Meaning	Error Handling
JPOS_E_CLOSED,0	The Device has been closed.	Try again after executing the open method.
JPOS_E_ILLEGAL,0	An invalid parameter value was specified.	Check the specified value and specify a valid one.
	The Device is enabled.	Try again after executing setDeviceEnabled(false).
	Unsupported function was specified.	This function is not supported.

PowerState Property

Type

    int PowerState;

Mutability

    Read Only

Remarks

    Always set to JPOS_PS_UNKNOWN because this function is not supported by the Device.

Exception

    In case of an error when this property is accessed, a Java exception is thrown.

ErrorCode & ErrorCodeExtended	Meaning	Error Handling
JPOS_E_CLOSED,0	The Device has been closed.	Try again after executing the open method.

State Property

Type

int State;

Mutability

Read Only

Remarks

Indicates a current state of the Control.

This property is always readable as long as the Service is loaded.

Value	Meaning
JPOS_S_CLOSED	The Control is closed.
JPOS_S_IDLE	The Control is in a normal state and is not busy.

Exception

If the module has been successfully loaded, no exceptions will be thrown when this property is accessed.

DeviceControlDescription Property

Type

String DeviceControlDescription;

Mutability

Read Only

Remarks

This property describes a Device Control class.

This property is always readable as long as the Service is loaded.

"JavaPOS CashDrawer Device Control" is set to the Device.

Exception

If the module has been successfully loaded, no exceptions will be thrown when this property is accessed.

DeviceControlVersion Property

Type

int DeviceControlVersion;

Mutability

Read Only

Remarks

This property indicates the version number of the Device Control class.

This property is always readable as long as the Service is loaded.

The version number of the Device is 1011000, which indicates the Device is in accordance with the JPOS 1.11.000.

Exception

If the module has been successfully loaded, no exceptions will be thrown when this property is accessed.

DeviceServiceDescription Property

Type

String DeviceServiceDescription;

Mutability

Read Only

Remarks

This property describes the Device Service class.

It is "TEC JavaPOS CashDrawer Device Service" for the Device.

Exception

In case of an error when this property is accessed, a Java exception is thrown.

ErrorCode & ErrorCodeExtended	Meaning	Error Handling
JPOS_E_CLOSED,0	The Device has been closed.	Try again after executing the open method.

DeviceServiceVersion Property

Type

int DeviceServiceVersion;

Mutability

Read Only

Remarks

This property indicates the version number of the Device Service class.

The version number of the Device is "1011XXX".

The value, "XXX" indicates a build version, which is incremented from 001.

Exception

In case of an error when this property is accessed, a Java exception is thrown.

ErrorCode & ErrorCodeExtended	Meaning	Error Handling
JPOS_E_CLOSED,0	The Device has been closed.	Try again after executing the open method.

PhysicalDeviceDescription Property

Type

String PhysicalDeviceDescription;

Mutability

Read Only

Remarks

This property describes a Physical Device.

It is set to "TEC DRWST-50 CashDrawer" for the Device.

Exception

In case of an error when this property is accessed, a Java exception is thrown.

ErrorCode & ErrorCodeExtended	Meaning	Error Handling
JPOS_E_CLOSED,0	The Device has been closed.	Try again after executing the open method.

PhysicalDeviceName Property

Type

String PhysicalDeviceName;

Mutability

Read Only

Remarks

This property describes a name of the Physical Device.

It is set to " DRWST-50" for the Device.

Exception

In case of an error when this property is accessed, a Java exception is thrown.

ErrorCode & ErrorCodeExtended	Meaning	Error Handling
JPOS_E_CLOSED,0	The Device has been closed.	Try again after executing the open method.

1.2.4.2.2 Specific Properties

CapStatusProperty

Type

> **boolean CapStatus;**

Mutability

> **Read Only**

Remarks

> If TRUE, an open/close status of the cash drawer can be reported.
> If FALSE, an open/close status of the cash drawer cannot be reported
> This property is initialized by the **open** method.
> For this Device, this property is set to TRUE.

Exception

> In case of an error when this property is accessed, a Java exception is thrown.

ErrorCode & ErrorCodeExtended	Meaning	Error Handling
JPOS_E_CLOSED,0	The Device has been closed.	Try again after executing the open method.

CapStatusMultiDrawerDetect Property

Type

> **boolean CapStatusMultiDrawerDetect;**

Mutability

> **Read Only**

Remarks

> Always set to FALSE because this function is not supported by the Device.

Exception

> In case of an error when this property is accessed, a Java exception is thrown.

ErrorCode & ErrorCodeExtended	Meaning	Error Handling
JPOS_E_CLOSED,0	The Device has been closed.	Try again after executing the open method.

DrawerOpened Property

Type

> **boolean DrawerOpened;**

Mutability

> **Read Only**

Remarks

> If TRUE, the cash drawer is open.
> If FALSE, the cash drawer is closed.
>
> This property is initialized when the Device becomes enabled and kept updated while the Device is enabled.

Exception

> In case of an error when this property is accessed, a Java exception is thrown.

ErrorCode & ErrorCodeExtended	Meaning	Error Handling
JPOS_E_CLOSED,0	The Device has been closed.	Try again after executing the open method.

1.2.5   Method Specifications

1.2.5.1 Supported/Unsupported Method List

Supported/unsupported methods by this Device (DRWST50) are as follows:

Common Method	Supported or Not
open	Supported
close	Supported
claim	Supported
release	Supported
checkHealth	Only Interactive Check Health is supported
clearInput	Not supported
clearInputProperties	Not supported
clearOutput	Not supported
directIO	Not supported
compareFirmwareVersion	Not supported
resetStatistics	Not supported
retrieveStatistics	Not supported
updateFirmware	Not supported
updateStatistics	Not supported
Exclusive Method	**Supported or Not**
openDrawer	Supported
waitForDrawerClose	Supported

Table 7 CashDrawer JavaPOS Device(DRWST50) – Method List

1.2.5.2 Details of Methods

This section details the methods of the DRWST50.

1.2.5.2.1 Common Properties

open Method

Type

> **open (String *logicalDeviceName*) throws JPOSException;**

Remarks

> This method is called to open the Device.
> The *logicalDeviceName* specifies a name of the Device to be opened.
> An attribute value specified by the attribute name "logicalName" in the <JposEntry> element under the <JposEntries> element of the jpos.xml file must be specified to this value.

Exception

> In case of an error when this method is invoked, a JPOSException is thrown.

ErrorCode & ErrorCodeExtended	Meaning	Error Handling
JPOS_E_ILLEGAL,0	The Device is open.	The Device has been open.
JPOS_E_NOEXIST,0	The Device was not detected.	DeviceService was not found. Check the logicalDeviceName parameter value and jpos.xml setting.
JPOS_E_NOSERVICE,0	DeviceService is invalid.	DeviceService does not support the method which it should. Or, the version number is invalid. Check the correct module is used.

close Method

Type

close ( ) throws JPOSException;

Remarks

This method is called to release the Device and its resources.
If the **DeviceEnabled** property is TRUE, then the Device is disabled.
If the **Claimed** property is TRUE, then exclusive access to the Device is released.

Exception

In case of an error when this method is invoked, a JPOSException is thrown.

ErrorCode & ErrorCodeExtended	Meaning	Error Handling
JPOS_E_CLOSED,0	The Device has been closed.	–

claim Method

Type

claim (int *Timeout*) throws JPOSException;

Remarks

This method is called to obtain an exclusive access to the Device.
The *Timeout* parameter indicates the maximum wait time in milliseconds to obtain an exclusive access.
If "0", then immediately either returns (if successful) or throws an appropriate exception.
If JPOS_FOREVER (-1), this method waits as long as needed until the exclusive access is obtained.
When the exclusive access is successfully obtained, the **Claimed** property is changed to TRUE.

Exception

In case of an error when this method is invoked, a JPOSException is thrown.

ErrorCode & ErrorCodeExtended	Meaning	Error Handling
JPOS_E_CLOSED,0	The Device has been closed.	Try again after executing the open method.
JPOS_E_ ILLEGAL,0	An invalid parameter value was specified.	Check the specified value and specify a valid one.
JPOS_E_TIMEOUT,0	A specified timeout period expired.	Execute the claim method again.

release Method

Type

release () throws JPOSException;

Remarks

This method is called to release an exclusive access to the Device.

Exception

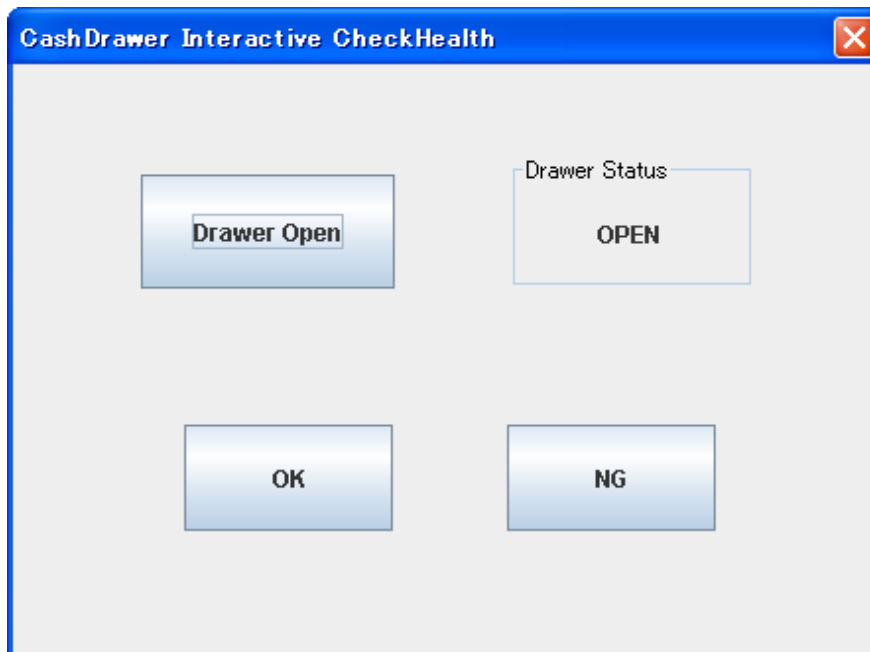In case of an error when this method is invoked, a JPOSException is thrown.

ErrorCode & ErrorCodeExtended	Meaning	Error Handling
JPOS_E_CLOSED,0	The Device has been closed.	Try again after executing the open method.
JPOS_E_ ILLEGAL,0	An exclusive access to the Device has not been obtained.	

checkHealth Method

Type

> **checkHealth (int *Level*) throws JPOSException;**

Remarks

The *Level* parameter indicates the following types of health check to be performed on the Device.

Value	Meaning
JPOS_CH_INTERNAL	Performs a health check that does not physically use the Device. The Device is tested by internal tests to the extent possible. This parameter is not supported.
JPOS_CH_EXTERNAL	Performs a thorough test using the Device. This parameter is not supported.
JPOS_CH_INTERACTIVE	Performs an interactive test with the Device. The supporting Device Service will typically display a modal dialog box to present test options and results.

When the checkHealth method is performed at an interactive level, the following dialog box is displayed.

An open/close status of the cash drawer is shown in the Drawer Status area. Clicking the Drawer Open button can check the cash drawer opens.

Visually check the display and press the button, either "OK" or "NG" to complete the check.

Exception

In case of an error when this method is invoked, a JPOSException is thrown.

ErrorCode & ErrorCodeExtended	Meaning	Error Handling
JPOS_E_CLOSED,0	The Device has been closed.	Try again after executing the open method.
JPOS_E_DISABLED,0	The Device has been disabled.	Try again after setting the DeviceEnabled property to TRUE.
JPOS_E_CLAIMED,0	The Device is claimed by other instance.	Try again after other instance releases the Device.
JPOS_E_ILLEGAL,0	An invalid level parameter value was specified	Try again after setting the level parameter to JPOS_CH_INTERACTIVE.

JPOS_E_FAILURE,0	An error occurred during CheckHealth.	Not a JavaPOS exception. Read a message and take necessary action. Try again after checking the Device status. If the error persists, investigate the error.

The checkHealthText property values vary as shown below.

Exception's ErrorCode	CheckHealthText Property
JPOS_E_CLOSED	No change
JPOS_E_DISABLED	"HCheck:Disabled"
JPOS_E_CLAIMED	"HCheck:Exclusive"
JPOS_E_ILLEGAL	"HCheck:Illegal"
JPOS_E_FAILURE	"HCheck:failure"

1) Internal Level (level=JPOS_CH_INTERNAL)
   This Device Service does not support the checkHealth method of Internal level.
   The following exception is thrown when the checkHealth method of Internal level is invoked.

Exception's ErrorCode	CheckHealthText Property	Meaning
JPOS_E_ILLEGAL	"Internal HCheck:Illegal"	Not supported

2) External Level (level=JPOS_CH_EXTERNAL)
   This Device Service does not support the checkHealth method of External level.
   The following exception is thrown when the checkHealth method of External level is invoked.

Exception's ErrorCode	CheckHealthText Property	Meaning
JPOS_E_ILLEGAL	"External HCheck:Illegal"	Not supported

3) Interactive Level (level=JPOS_CH_INTERACTIVE)
   The checkHealthText property values vary as shown below.

Exception's ErrorCode	CheckHealthText Property	Meaning
– (No exceptions are thrown.)	"Interactive HCheck: Successful"	Completed with the "OK " button
– (No exceptions are thrown.)	"Interactive HCheck: Error"	Completed with the "NG " button

directIO Method

Type

directIO (int *Command*, int *pData*, Object *pString*) throws JPOSException;

Remarks

An exception is always thrown when this method is called because the Device does not support this function.

Exception

In case of an error when this method is invoked, a JPOSException is thrown.

ErrorCode & ErrorCodeExtended	Meaning	Error Handling
JPOS_E_CLOSED,0	The Device has been closed.	Try again after executing the open method.
JPOS_E_ILLEGAL,0	Unsupported function was specified.	This function is not supported..

compareFirmwareVersion Method

Type

compareFirmwareVersion(String firmwareFileName, int result) throws JPOSException;

Remarks

An exception is always thrown when this method is called because the Device does not support this function.

Exception

In case of an error when this method is invoked, a JPOSException is thrown.

ErrorCode & ErrorCodeExtended	Meaning	Error Handling
JPOS_E_CLOSED,0	The Device has been closed.	Try again after executing the open method.
JPOS_E_NOTCLAIMED,0	The Device is not claimed.	Try again after claiming the Device.
JPOS_E_DISABLED,0	The Device has been disabled.	Try again after setting the DeviceEnabled property to TRUE.
JPOS_E_ILLEGAL,0	Unsupported function was specified.	This function is not supported..

resetStatistics Method

Type

resetStatistics(String statisticsBuffer) throws JPOSException;

Remarks

An exception is always thrown when this method is called because the Device does not support this function.

Exception

In case of an error when this method is invoked, a JPOSException is thrown.

ErrorCode & ErrorCodeExtended	Meaning	Error Handling
JPOS_E_CLOSED,0	The Device has been closed.	Try again after executing the open method.
JPOS_E_NOTCLAIMED,0	The Device is not claimed.	Try again after claiming the Device.
JPOS_E_DISABLED,0	The Device has been disabled.	Try again after setting the DeviceEnabled property to TRUE.
JPOS_E_ILLEGAL,0	Unsupported function was specified.	This function is not supported.

retrieveStatistics Method

Type

retrieveStatistics(String StatisticsBuffer) throws JPOSException;

Remarks

An exception is always thrown when this method is called because the Device does not support this function.

Exception

In case of an error when this method is invoked, a JPOSException is thrown.

ErrorCode & ErrorCodeExtended	Meaning	Error Handling
JPOS_E_CLOSED,0	The Device has been closed.	Try again after executing the open method.
JPOS_E_NOTCLAIMED,0	The Device is not claimed.	Try again after claiming the Device.
JPOS_E_DISABLED,0	The Device has been disabled.	Try again after setting the DeviceEnabled property to TRUE.
JPOS_E_ILLEGAL,0	Unsupported function was specified.	This function is not supported.

updateFirmware Method

Type

updateFirmware(String firmwareFileName) throws JPOSException;

Remarks

An exception is always thrown when this method is called because the Device does not support this function.

Exception

In case of an error when this method is invoked, a JPOSException is thrown.

ErrorCode & ErrorCodeExtended	Meaning	Error Handling
JPOS_E_CLOSED,0	The Device has been closed.	Try again after executing the open method.
JPOS_E_NOTCLAIMED,0	The Device is not claimed.	Try again after claiming the Device.
JPOS_E_DISABLED,0	The Device has been disabled.	Try again after setting the DeviceEnabled property to TRUE.
JPOS_E_ILLEGAL,0	Unsupported function was specified.	This function is not supported.

updateStatistics Method

Type

updateStatistics(String statisticsBuffer) throws JPOSException;

Remarks

An exception is always thrown when this method is called because the Device does not support this function.

Exception

In case of an error when this method is invoked, a JPOSException is thrown.

ErrorCode & ErrorCodeExtended	Meaning	Error Handling
JPOS_E_CLOSED,0	The Device has been closed.	Try again after executing the open method.
JPOS_E_NOTCLAIMED,0	The Device is not claimed.	Try again after claiming the Device.
JPOS_E_DISABLED,0	The Device has been disabled.	Try again after setting the DeviceEnabled property to TRUE.
JPOS_E_ILLEGAL,0	Unsupported function was specified.	This function is not supported.

1.2.5.2.2 Exclusive Methods

openDrawer Method

Type

openDrawer () throws JPOSException;

Remarks

Opens the drawer.

Exception

In case of an error when this method is invoked, a JPOSException is thrown.

ErrorCode & ErrorCodeExtended	Meaning	Error Handling
JPOS_E_CLOSED,0	The Device has been closed.	Try again after executing the open method.
JPOS_E_DISABLED,0	The Device has been disabled.	Try again after setting the DeviceEnabled property to TRUE.
JPOS_E_CLAIMED,0	The Device is claimed by other instance.	Try again after other instance releases the Device.

waitForDrawerClose Method

Type

> **waitForDrawerClose (int beepTimeout, int beepFrequency, int beepDuration, int beepDelay) throws JPOSException;**

Remarks

> Waits until the cash drawer is closed. If the cash drawer is still open after a beepTimeout period in milliseconds expires, the beep sounds as an alert (if the alert beep function is supported). This Device, having no such function, does not beep.
>
> Unless a JposException is thrown, this method does not return the control to the application while the drawer is open. Also if the CapStatusMultiDrawerDetect property is FALSE in a multiple cash drawer configuration, this method does not return the control to the application while one or more cash drawers are open. When all cash drawers are closed, the system alert beep stops.
>
> If the CapStatus property is FALSE, this method returns the control to the application immediately because the Device does not support the status reporting function.

Exception

> In case of an error when this method is invoked, a JPOSException is thrown.

ErrorCode & ErrorCodeExtended	Meaning	Error Handling
JPOS_E_CLOSED,0	The Device has been closed.	Try again after executing the open method.
JPOS_E_DISABLED,0	The Device has been disabled.	Try again after setting the DeviceEnabled property to TRUE.
JPOS_E_CLAIMED,0	The Device is claimed by other instance.	Try again after other instance releases the Device.
JPOS_E_ ILLEGAL,0	An invalid parameter value was specified.	Check the specified value and specify a valid one.

1.2.6 Event Specifications

This Device Service throws the following events.
Supported/unsupported events by this Device (DRWST50) are as follows:

1.2.6.1 Event List

Event	Remarks
DataEvent	Not Supported
DirectIOEvent	Not Supported
ErrorEvent	Not Supported
OutputCompleteEvent	Not Supported
StatusUpdateEvent	

Table 8 CashDrawer JavaPOS Device(DRWST50) – Event List

1.2.6.2 Details of Events

DirectIOEvent Event

Type

directIOOccurred (DirectIOEvent e);

Remarks

The Device does not support this function.

StatusUpdateEvent Event

Type

StatusUpdateOccurred (StatusUpdateEvent e);

Remarks

Notifies the application when the status of the cash drawer changes.
This event uses the following property.

Property	Type	Remarks
Status	int	The status of the cash drawer

The Status property has one of the following values:

Value	Meaning
CASH_SUE_DRAWERCLOSED(=0)	The cash drawer is closed.
CASH_SUE_DRAWEROPEN(=1)	The cash drawer is open.

1.2.7 Setting Information

Setting information of this Device Service is set in the XML file called "jpos.xml".
The <prop> tag in the XML file is a setting item specific to this Device. For details of other tags, <creation>, <vendor>, <jpos>, and <product> tags, refer to the UPOS Specification.

```
<JposEntries>
        <JposEntry logicalName="DefaultCashDrawer">
                <creation factoryClass="jpos.toshibatec.cashdrawer.loader.JavaPOSServiceFactory"
                        serviceClass="jpos.toshibatec.cashdrawer.services.CashDrawerService"/>
                <vendor name="TOSHIBA TEC Corporation" url="http://www.toshibatec.co.jp"/>
                <jpos category="CashDrawer" version="1.11"/>
                <product description="TEC Cash Drawer"
                        name="TECCashDrawer" url="http://www.toshibatec.co.jp"/>

                <prop name="modelName" type="String" value="DRWST50"/>
                <prop name="portName" type="String" value="DRW1"/>
        </JposEntry>

        <JposEntry logicalName="DefaultCashDrawerEx">
                <creation factoryClass="jpos.toshibatec.cashdrawer.loader.JavaPOSServiceFactory"
                        serviceClass="jpos.toshibatec.cashdrawer.services.CashDrawerService"/>
                <vendor name="TOSHIBA TEC Corporation" url="http://www.toshibatec.co.jp"/>
                <jpos category="CashDrawer" version="1.11"/>
                <product description="TEC Cash Drawer"
                        name="TECCashDrawerEx" url="http://www.toshibatec.co.jp"/>

                <prop name="modelName" type="String" value="DRWST50"/>
                <prop name="portName" type="String" value="DRW2"/>
        </JposEntry>

</JposEntries>
```

Item Name (JposEntry)	Remarks
logicalName	Specify the logical name that the application uses.

Item Name (product)	Remarks
name	Set TECCashDrawer or TECCashDrawerEx. (Fixed).

Item Name (prop)	Remarks
modelName	Device model name. Set DRWST50.
portName	Name of the port which connects the cash drawer. Select a value from DRW1 and DRW2.

Table 9 CashDrawer JavaPOS Device –Setting Information List