



# IBM USB OPOS Service Objects



## *Quick Reference Guide*



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This product may be covered by one or more of the following patents: 4603262 • 4639606 • 4652750 • 4672215 • 4699447 • 4709369 • 4749879 • 4786798 • 4792666 • 4794240 • 4798943 • 4799164 • 4820911 • 4845349 • 4861972 • 4861973 • 4866257 • 4868836 • 4879456 • 4939355 • 4939356 • 4943127 • 4963719 • 4971176 • 4971177 • 4991692 • 5001406 • 5015831 • 5019697 • 5019698 • 5086879 • 5115120 • 5144118 • 5146463 • 5179270 • 5198649 • 5200597 • 5202784 • 5208449 • 5210397 • 5212371 • 5212372 • 5214270 • 5229590 • 5231293 • 5232185 • 5233169 • 5235168 • 5237161 • 5237162 • 5239165 • 5247161 • 5256864 • 5258604 • 5258699 • 5260554 • 5274219 • 5296689 • 5298728 • 5311000 • 5327451 • 5329103 • 5330370 • 5347113 • 5347121 • 5371361 • 5382783 • 5386105 • 5389917 • 5410108 • 5420410 • 5422472 • 5426507 • 5438187 • 5440110 • 5440111 • 5446271 • 5446749 • 5448050 • 5463211 • 5475206 • 5475207 • 5479011 • 5481098 • 5491328 • 5493108 • 5504350 • 5508505 • 5512740 • 5541397 • 5552593 • 5557095 • 5563402 • 5565668 • 5576531 • 5581707 • 5594231 • 5594441 • 5598070 • 5602376 • 5608201 • 5608399 • 5612529 • 5629510 • 5635699 • 5641958 • 5646391 • 5661435 • 5664231 • 5666045 • 5671374 • 5675138 • 5682028 • 5686716 • 5696370 • 5703347 • 5705802 • 5714750 • 5717194 • 5723852 • 5750976 • 5767502 • 5770847 • 5786581 • 5786585 • 5787103 • 5789732 • 5796222 • 5804809 • 5814803 • 5814804 • 5821721 • 5822343 • 5825009 • 5834708 • 5834750 • 5837983 • 5837988 • 5852286 • 5864129 • 5869827 • 5874722 • 5883370 • 5905249 • 5907147 • 5923023 • 5925868 • 5929421 • 5945670 • 5959284 • 5962838 • 5979769 • 6000619 • 6006991 • 6012639 • 6016135 • 6024284 • 6041374 • 6042012 • 6045044 • 6047889 • 6047894 • 6056198 • 6065676 • 6069696 • 6073849 • 6073851 • 6094288 • 6111293 • 6129279 • 6129282 • 6134039 • 6142376 • 6152368 • 6152372 • 6155488 • 6166375 • 6169614 • 6173894 • 6176429 • 6188500 • 6189784 • 6213397 • 6223986 • 6230975 • 6230976 • 6237852 • 6244510 • 6259545 • 6260763 • 6266175 • 6273336 • 6276605 • 6279829 • 6290134 • 6290135 • 6293467 • 6303927 • 6311895 • 6318634 • 6328216 • 6332576 • 6332577 • 6343741 • 6454168 • 6478224 • 6,568,598 • 6,578,765 • 6705527 • AU703547 • D312631 • D313590 • D320011 • D320012 • D323492 • D330707 • D330708 • D349109 • D350127 • D350735 • D351149 • D351150 • D352936 • D352937 • D352938 • D352939 • D358588 • D361565 • D372234 • D374630 • D374869 • D375493 • D376357 • D377345 • D377346 • D377347 • D377348 • D388075 • D446524 • EP0256296 • EP0260155 • EP0260156 • EP0295936 • EP0325469 • EP0349770 • EP0368254 • EP0442215 • EP0498366 • EP0531645 • EP0663643 • EP0698251 • GB2252333 • GB2284086 • GB2301691 • GB2304954 • GB2307093 • GB2308267 • GB2308678 • GB2319103 • GB2333163 • GB2343079 • GB2344486 • GB2345568 • GB2354340 • ISR107546 • ISR118507 • ISR118508 • JP1962823 • JP1971216 • JP2513442 • JP2732459 • JP2829331 • JP2953593 • JP2964278 • MEX185552 • MEX187245 • RE37166 • Other Patents Pending

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# NOTES

# PSC® IBM USB OPOS Service Objects

## Introduction

### Document Conventions

Formatting conventions are used throughout this guide to provide a consistent method for representing screen shots and command entries.



**Notes** contain information additional information of interest to the user.

**Keystrokes.** Filenames, paths, field selections, and data or keystrokes entered by the user are shown in this **monospaced** typeface.

**Controls.** Controls including command bar sequences, prompts, fields, checkboxes and radio-buttons are printed in this **bold** typeface.

### About the PSC OPOS Service Objects

These Service Objects are current to OPOS version 1.8, published in January 2004. These Service Objects are fully compatible with the *Unified POS Retail Peripheral Architecture, version 1.8* and the OPOS appendix to that spec. It is available online from the National Retail Federation at [www.nrf-arts.org/download/upos18.pdf](http://www.nrf-arts.org/download/upos18.pdf).

### PSC Products Supported

#### Tabletop scanners and integrated scanner/scales

- Magellan 2200, 2300, 8100, 8200, 8500, 9500
- Duet, VS800

#### Handheld scanners

- QS6000+, QS2500, QS6500

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## Limitations

These Service Objects will support a maximum of one tabletop scanner/scale AND one handheld scanner connected to a single terminal. Attempts to connect more than one of each of these scanners will result in unpredictable behavior.

## Installation

### Running the Install



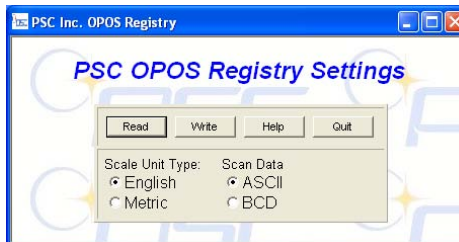
**Uninstall any previous scanner/scale service objects and support code from other vendors before proceeding with the installation of the PSC OPOS Utility.**

To install, please perform the following steps:

1. Download the most current install file for the IBM USB OPOS service objects from the PSC website ([www.psc.com](http://www.psc.com)).
2. Double-click setup.exe to run the install program.
3. Follow the on-screen instructions to complete the installation.

### Configuration Utility

A configuration utility which facilitates selection of scale type (English or metric) and label data format (BCD or ASCII) is provided with the install. This utility is called **psc\_oposcnfg.hta**. Reference the included Readme file for information on applying settings.



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# Standard OPOS Scanner Operations

See the *Unified POS Retail Peripheral Architecture v1.8* for details on Properties and Methods.

## CapPowerReporting property

**Scanner CapPowerReporting** is `OPOS_PR_NONE:0`.

Power reporting is not supported by PSC scanners.

The **PowerNotify** property is not used, and changes to it are ignored by PSC OPOS service objects. **StatusUpdate** events are not initiated by the PSC OPOS service objects.

## CheckHealth method

The scanner supports health check. Possible replies include:

- **Internal health check: Scanner Health Good**
- **Internal health check: Scanner Hardware Error**

**checkHealth** (1 `OPOS_CH_INTERNAL`) is supported.

**checkHealth** (2 `OPOS_CH_EXTERNAL`) and

**checkHealth** (3 `OPOS_CH_INTERACTIVE`) are not supported.

## Bar code data

### ScanData property

**ScanData** property always has bar code data when a **DataEvent** is fired. For Tabletop scanners, the bar code data may be sent across the USB interface as uncompressed Binary Coded Decimal (BCD), depending upon scanner configuration and bar code type. The PSC OPOS Utility can be used to configure the Service Object to provide ASCII data in the **ScanData** property if required by the application.

### ScanDataLabel property

- Contains data if **DecodeData** is **TRUE**.
- Computes check digit for UPC/EAN labels if not present from scanner.

- 
- Strips symbology identifiers from the **ScanData** value.
  - If the PSC Configuration Utility is set to ASCII, then both **ScanData** and **ScanDataLabel1** will be in ASCII format.

### **ScanDataType property**

- Contains label type if **DecodeData = TRUE**
- Label type as reported on scanner interface — the scanner assigns a label type identifier and sends this with the label data across the IBM USB interface. The Service Object translates this into one of the OPOS defined label types.

## **Statistics**

### **CapStatisticsReporting property = TRUE**

The scanner supports **retrieveStatistics** method. The scale does not. This method returns a pointer to an XML data buffer.

Supported statistics are:

- Device category
- Manufacturer
- Model number
- Serial Number
- Firmware revision
- Interface type
- Power on time
- Number of label scans

### **CapUpdateStatistics = FALSE**

Statistics cannot be updated or reset. PSC scanners do not support the **ResetStatistics( )** or **UpdateStatistics( )** methods.

# Standard OPOS Scale operations

See the *Unified POS Retail Peripheral Architecture v1.8* for Properties and Methods.

## CapPowerReporting property

Scale **CapPowerReporting** is `OPOS_PR_NONE:0`.

Power reporting is not supported by PSC scanners.

The **PowerNotify** property is not used, and changes to it are ignored by PSC OPOS service objects. **StatusUpdate** events are not fired by the PSC OPOS service objects.

## CheckHealth method

The scale supports health check. Possible replies include:

- **Internal health check: Scale Health Good**
- **Internal health check: Scale Hardware Error**

`checkHealth` (1 `OPOS_CH_INTERNAL`) is supported.

`checkHealth` (2 `OPOS_CH_EXTERNAL`) and

`checkHealth` (3 `OPOS_CH_INTERACTIVE`) are not supported.

## ReadWeight method

The scale can operate with **AsyncMode** either **TRUE** or **FALSE**. When the **readWeight** method is invoked, the scale will return with the **weightData** within the specified timeout period. If **AsyncMode** is set to **TRUE** by the application, the scale will operate as per the OPOS specification and return **weightData** asynchronously.



The **Metric** setting in the Configuration utility for changing OPOS to report Metric weights must match that to which the Scale is configured, or errors will result.

## Display

Scale supports a remote display, but not text display. The POS application cannot send data to the scale's remote display (**CapDisplayText** = **FALSE**).

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# NOTES



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