

ZapStore



Data Technology
Hardware • Software
Design • Consulting

The ZapStore is designed and built in Australia by:

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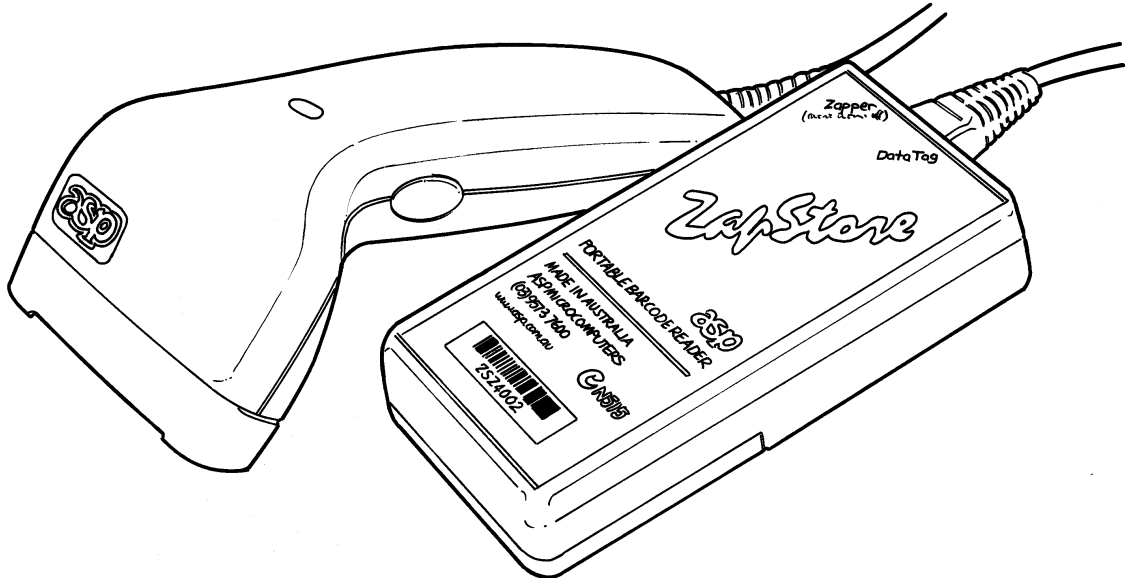
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Meet the ZapStore

ZapStore is an add-on product for Asp's popular Barcode Zapper that turns it into a simple but effective Portable Barcode Reader.



ZapStore provides these main features:

- Reads one to sixteen character Code 39, Code 128, Code 93, Codabar, EAN-8 and 13, UPC-A and E, and Interleaved 2 of 5 barcodes.
- Virtually limitless storage capacity – each removable DataTag can store up to 1500 scans.
- Scanned data can be time and/or date stamped.
- No power switch – just unplug the Zapper to turn the unit off.
- No recharging or mains connection – ZapStore is powered by a replaceable standard 9 volt alkaline battery that you can buy anywhere.

Using the ZapStore

Plug the Zapper and a DataTag into the ZapStore, slip the ZapStore into your pocket, and start scanning – it's that easy! When you're done, take the DataTag back to your PC, run the ASPKey+ Utility, and import the data into your application. ASPKey will even allow the data stored in the DataTag to be electronically "typed" in to your application.

The ZapStore doesn't need a power switch – as long as the Zapper is plugged in, the ZapStore is on and ready to scan barcodes. Unplug the Zapper and the unit draws so little power that the battery will last for more than a year. However, if you're not using your ZapStore regularly, it's best to remove the battery anyway.

To scan a barcode, just place the Zapper over the barcode and push the read button on the Zapper - the ZapStore will emit a short beep to signal that the barcode has been read and stored into the DataTag.

If you forget to plug a DataTag in, the ZapStore will sound a longer low tone to remind you, and you'll have to insert a DataTag and scan the barcode again.

When the DataTag gets over about 80% full, the ZapStore will emit two very quick beeps at every scan to let you know that you'll need to download the DataTag soon, or swap to a "spare" DataTag from your pocket.

If you forget to unplug the Zapper when you put the ZapStore away, the battery will only last about two weeks.

Other Battery Issues

The ZapStore uses readily available 9 volt alkaline clip batteries. Low battery power is signalled by 3 rapid beeps. When you hear these during normal operation, fit a new battery. You may also get these rapid beeps when clipping the Zapper cable into the ZapStore, but these should be ignored.

DataTags and the DataTag Homebase

The DataTag Homebase is a socket-like device that plugs into a serial port on your computer and allows DataTags to be read and saved.

The DataTag Homebase is supplied with a D9 RS-232 port connector. A D9 to D25 adaptor can be supplied if required.



ASP's versatile ASPKey+ program is used to control the DataTag Homebase,

and it **must** have exclusive use of the serial port it is attached to - you cannot, for instance, unplug your mouse and plug in the DataTag Homebase, because your mouse driver will conflict with ASPKey+ and your computer and/or ASPKey+ will probably lock up.

You should, however, be able to unplug a modem or other serial device and use that port for the DataTag Homebase, provided no special driver software has been loaded for that port.

Installing and using ASPKey+

You have been supplied with a Manual for ASPKey+ and this should be consulted before installing. The Manual also provides detailed instruction on the use of the utility.

DataTag Storage Options

DataTags can be optionally configured to “stamp” each barcode or serial number with the time, the date, or both the time and the date. The time is stored as hours and minutes in 24 hour format (e.g. 17:56), or hours, minutes and seconds (e.g. 17:56:13) and the date is stored in day, month and year format (e.g. 31-08-05 OR 31-08-2005, depending on whether the “Use 2 digit years” option is set). Listed below are the formats available, and the manner in which they are stored to disk:

| | |
|-----------------------------------|--------------------------|
| Data only | 1234 |
| Data + time | 1234,17:56 |
| Data + time (with seconds) | 1234,17:56:13 |
| Data + date | 1234,31-08-2005 |
| Data + time + date | 1234,17:56,31-08-2005 |
| Data + time (with seconds) + date | 1234,17:56:13,31-08-2005 |

ZapStore's internal clock only provides the last two digits of the year, so the century information (if needed) is added by the DataTag utilities on the PC. The correct century is determined using the “pivot year” principle - years 90 through 99 are converted to 1990 through 1999, and years 00 through 89 are converted to 2000 through 2089.

How Much Data Can I Store In A DataTag?

In most applications, a DataTag is likely to be able to hold about 1000 to 1500 scans. To work out *exactly* how many scans you'll be able to store in your own application, you'll need to do a bit of easy math.

First, you'll need to know that a DataTag has 8159 characters of storage space available. You also need to know that there's a one character "overhead" for each item stored. If you're not using time and/or date stamping, that means that the number of scans you can store can be worked out by dividing 8159 by 1 more than the length of the barcode.

For example, a DataTag could hold 1631 four character barcodes, since 8159 divided by one more than the length (i.e. 5) is 1631.

If time and/or date stamping is enabled, you also have to add two or three extra characters to each scan for the time stamp (depending on whether you're storing seconds or not), and three extra characters for the date stamp.

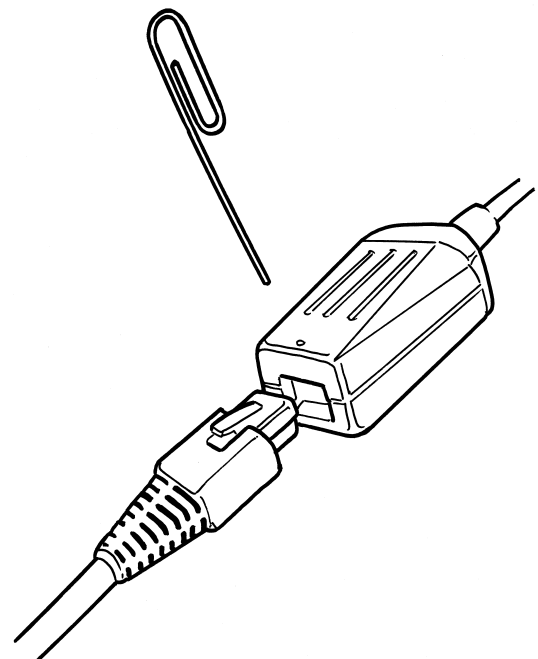
So, with both time and date stamps (but without seconds), 815 scans could be stored, since 8159 divided by 10 is 815. (The 10 is the total of one more than the length of the barcode, plus two extra for the time and three extra for the date, i.e. $4 + 1 + 2 + 3 = 10$).

Using Your Existing Barcode Zapper

If you already own a Barcode Zapper, and you want to use it with the ZapStore, you'll have to learn "the paperclip trick".

Every Barcode Zapper, regardless of how it's connected to your computer, is the same except for the short adaptor cable attached to it. To attach your Barcode Zapper to the ZapStore, you have to remove your existing adaptor cable.

First, find yourself a paperclip, and unfold it as shown in the diagram on the right. Then, find the side of the adaptor cable with the tiny hole in it, and push the end of the paperclip into the hole to release the Zapper cable, which you can then just pull out. A small lever on the connector on the end of the Zapper cable holds the Zapper cable into the adaptor, and the paperclip pushes down on



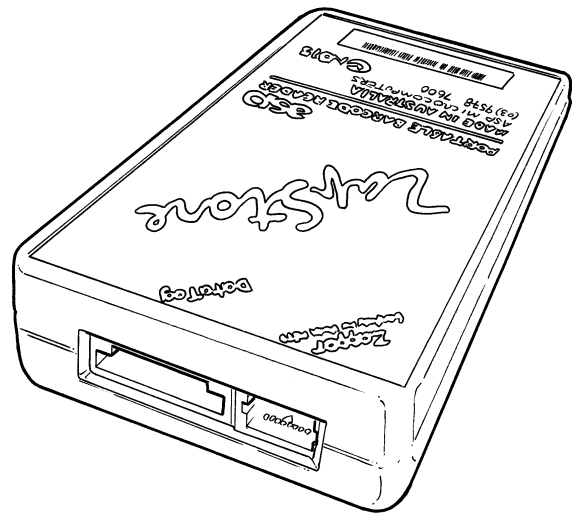
that lever to release it.

Gently does it, though – if the cable is hard to pull out, you're not doing it correctly.

Next, put your adaptor cable away in a safe place, and plug the Zapper into the connector on the top of the ZapStore – see the drawing on the right.

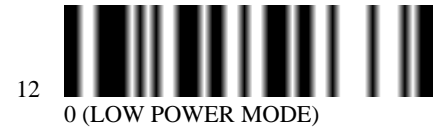
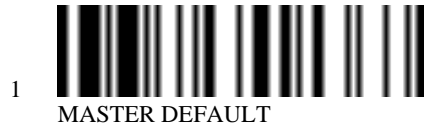
The final step is to scan the barcodes on page 6 to set up your Zapper for correct operation with the ZapStore.

To remove the Zapper from the ZapStore, just press the little lever and pull the connector out – you don't need the paperclip. Remember that you'll have to restore your Zapper to the proper configuration when you re-connect the adaptor and plug it back into your PC. If you were using your Zapper in Keyboard Wedge mode, you'll find the setup barcodes on page 7, otherwise you'll need to consult your Zapper manual.



Standard ZapStore Setup Barcodes

To set up your Barcode Zapper to work correctly with the ZapStore, scan the barcodes below in the numerical order shown.



Recommended Extra Settings

The result of the Standard ZapStore setting barcodes is that the Barcode Zapper is set to “auto discriminate” mode. This means the Zapper will automatically work out the type of barcode it is reading.

However, to improve reliability when operating the Zapper on batteries while connected to the ZapStore, we recommend enabling only the types of barcodes you expect to encounter.

So if you expect to encounter Code 39 only, just enable that. If you need to scan Code 39 and Code128, enable both.

Setting up the symbologies you need to read is straightforward, but must be done exactly as indicated.

First, work out which symbologies you need to read. Then, from the barcodes on the next page, scan the **PROGRAM** and **SET SYMBOLOGIES** labels (in that order), followed by your selection of 2 digit sequences using the numbers on the right side of the page. Finally, scan the barcode marked **END** on the left of the page.

If you need to return your Zapper to PC Keyboard interface duties, scanning the barcodes labelled “Standard Keyboard Wedge Setup Barcodes” will re-enable auto discrimination mode.

Examples for Extra Settings

For instance to set Code 39 scan: **PROGRAM**
SET SYMBOLOGY
0
7
END

For Code 39 AND Code 128 scan: **PROGRAM**
SET SYMBOLOGY
0
7
0
1
END

Extra Settings Barcodes

Following the instructions on the previous page, scan the **PROGRAM** and then the **SET SYMBOLOGY** barcodes below, then scan a two digit sequence from the column on the right column for each symbology you want to be enabled. When you're done, scan the **END** barcode on the left below.



PROGRAM



SET SYMBOLOGY

Scan the two barcodes above in order from the top, then scan a two digit sequence from the right column for each symbology you want to be enabled:

| <u>Selection</u> | <u>Option</u> |
|--------------------|---------------|
| Code 128 | 01 |
| UPC-A | 02 |
| UPC-E | 03 |
| EAN/CAN/JAN-13 | 04 |
| EAN/CAN/JAN-8 | 05 |
| Codabar | 06 |
| Code 39 | 07 |
| Interleaved 2 of 5 | 08 |
| Code 93 | 09 |

Finally scan the END barcode below.



END



0



1



2



3



4



5



6



7



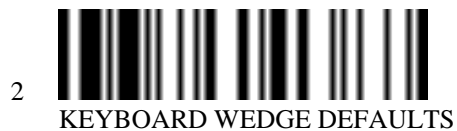
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Standard Keyboard Wedge Setup Barcodes

If you're using a Barcode Zapper that you already own, you will most likely have been using it as a **Keyboard Wedge**. If that's so, to return your Zapper to that mode, scan the barcodes below in the numerical order shown. Otherwise, you'll need to consult your Zapper manual.



Warranty

To the extent permitted by law ASP's warranty in respect of the ZapStore and its use is limited to correction of defects in the ZapStore due to faulty components or workmanship for a period of one year from the date of purchase.

It is your responsibility to carefully pack any unit being returned for service, warranty or otherwise, and pay shipping charges to your dealer location or ASP. Units sent freight collect will not be accepted. Freight back to you will be paid by ASP in the case of warranty repairs.

ASP welcomes suggestions for improvements to our products and documentation.

EMC Statement

All electronic equipment sold in Australia is now required to meet Electromagnetic Compatibility (EMC) standards to reduce the problems of electromagnetic interference. The C-Tick mark signifies compliance with these requirements.

The ZapStore has been tested to the requirements of the following standards:

USA FCC Part 15, Subpart B, Class A.

Australia Australian Standard AS3548:1993.

