

## Installing a USB :CueCat

### Windows XP

A USB :CueCat needs no software or drivers with Windows XP. Just plug your :CueCat into a USB port and Windows XP should recognise the new USB Device and tell you ‘:CueCat installed’. If it doesn’t then unplug the :CueCat, wait a few moments and try again.

Your computer sees the :CueCat as a ‘KeyBoard’ device (not as a scanner). If for some unlikely reason you need to manually install then search for a new USB HID ‘Human Interface Device’.

### Mac OS 10, Windows 98SE & ME, Linux

Should install as above. Some Mac OS 10 users report that you get a message from the Keyboard Setup Assistant asking you to press a key – just cancel the dialogue and continue. Earlier versions of Windows e.g. 98 may not have USB drivers installed – in which case it’s probably time for an update.

### PS/2 :CueCats

PS/2 :CueCats have a special double ended round PS/2 connector that goes between the keyboard and the computer. I’ve heard mixed views: I believe that on Windows XP they will install as above and no drivers are needed. On older operating systems you may need a driver. Note: Simple PS/2 to USB adaptors don’t seem to work, those more complex ones that have conversion circuitry may do.

As I write various :CueCat drivers are available at <http://www.logorrhea.com/cuecat/>. ‘Your\_CueCat\_Driver\_0.91\_Win2kMe.zip’ should work with earlier Windows versions.

## Scanning Codes with a :CueCat

### Caution

Because it is a kind of keyboard the :CueCat will give you strange results unless your NumLock Key is 'On' – if your keypad won't give you numbers then nor will the :CueCat.

The :CueCat behaves like a standard English (US or UK) keyboard. If you have a non-English keyboard or a special layout e.g. a Dvorak keyboard than your :CueCat may give unexpected results. To test your :CueCat you may need to reset your computer to expect a standard English Keyboard. Note: LibraryThing will automatically correct for some keyboards, other software probably won't.



### Unmodified :CueCats

Most new :CueCats – including those from LibraryThing -- are 'unmodified' and generate results that look like this

```
.C3nZC3nZC3nWCxjWE3D1C3nX.cGf2.ENr7C3v7D3T3ENj3C3zYDNnZ.
```

This is quite normal and LibraryThing will automatically de-code this output. They do this because :CueCats were originally intended to output a serial number and an encrypted version of the barcode so that they could be used for user tracking.

Other software may not de-code it and if you want' to use your :CueCat with other programs it is possible to modify (or de-claw) it. Then it will give human readable output that looks like this 978068484914051500 instead. This is a simple fix (but not a trivial one, it involves opening up the :CueCat and cutting a connection on one of the integrated circuits). See 'De-clawing a USB :CueCat' below or <http://www.cexx.org/cuecat.htm> for more information.

### Testing

When your :CueCat is plugged in the small window in its nose will show a pulsing red light. While the light is pulsing, the :CueCat is asleep. To wake it up, hold it nose down on a piece of paper so that the light is reflected back into the window. When it wakes up the light will be a brighter steady red.



Find a handy bar-code, any UPC code on a book or other product will do. It may help to start with a code that is flat and not too near the edge of the product – a book with a code that's not right against the edge is ideal.

Open up a text editor on your computer. Notepad is fine, or a word processor.

Note: It's best not to use LibraryThing right away as, if there is a problem, it's not clear where it lies. Going step by step is simpler in the long run.



Hold the :CueCat vertically with its tail in the air and its nose touching the book. Put it so that its front paws are above and below the barcode and move it off to the empty space at one end of the code. Then move the :CueCat smoothly along the barcode from the clear space at one end to the clear space at the other.

Look for output in the text editor like this (you'll get one or the other depending on whether your :CueCat is modified or not).



There is a knack to this and it will come pretty quickly. Some things to check are:

- Hold the :CueCat vertically, not at a slope.
- Try swiping faster or slower – usually a bit faster is better but keep the movement smooth.
- Keep the centre line of the :CueCat more or less in the centre of the barcode, if you wander off to one side the :Cue Cat may get confused.
- Start off to one side of the code – allow a centimetre (1/2”) of clear space to give you a run in.
- It does not matter whether you go from start to end of the code or end to start, nor which way the cat is facing.
- It may help to turn the book so that you are moving the :CueCat towards and away from you rather than from right to left. I find this helps with longer codes.

When the :CueCat reads the code you should see in your text editor window either the long string starting and ending with a full stop or a 13 digit UPC code. If your barcode also includes a smaller five digit code – like the example above – this is fine, the extra information will cause no problems.

If you have an unmodified :CueCat then as a final check you can copy and paste the coded string into the JavaScript :CueCat Decoder at [http://www.logorrhea.com/cuecat/cuecat\\_decode.html](http://www.logorrhea.com/cuecat/cuecat_decode.html) when you should see the ISBN-13 output correctly (NB the Check Digit will show as invalid if the code also includes the five-digit add-on, this is OK).

## ISBNs and Barcodes

Now you need a good barcode to start scanning into LibraryThing. Here's short diversion to explain what to look for.

ISBNs (or International Standard Book Numbers) were derived from some stock codes first put on some books in the UK in the early 1960s. Over the last forty years they have spread to more countries, have taken on a standardised form and – on most books – are shown as a machine readable barcode. It's this code that your :CueCat will read.

Various barcode schemes have been used and although most recently published books carry an international standard ISBN barcode some also carry other barcodes as well.

What you are looking for is a bar code that looks like one of these:



Notice this barcode has an ISBN number across the top and the number below the barcode starts with 978 (though in the future this may also be 979).

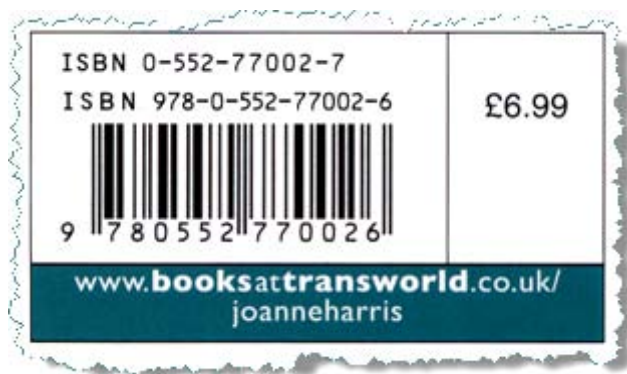
Ideally this will be on the back cover of the book (known as Cover 4) though on some US paperbacks it may be on the inside front cover (Cover 2)\*.



This barcode includes a supplementary five-digit add-on code (usually used for pricing information). This format is mandatory in some countries including the USA and Canada.

Your :CueCat will read the extra five digits and LibraryThing knows to ignore them.

Notice that we still have a human readable ISBN above and the lower number starts with 978.



This version has the new ISBN-13 at the top as well as the older ISBN-10. Books published from 1 January 2007 should show both.

Notice that the ISBN-13 is the same as the code below the barcode.

ISBN-10 and -13 are almost the same except that there is a 978 at the start of the ISBN-13 and the final check digits are different.

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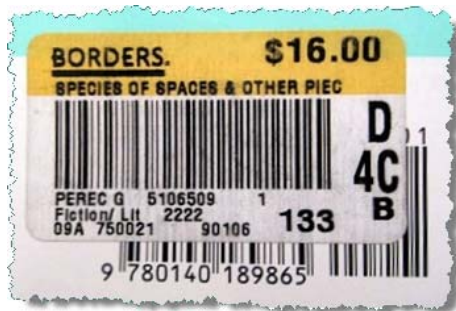
\* This is because when these books are returned from bookstores for a refund only the front cover is sent back and the rest is pulped.

The example below looks more complex but you'll see that the barcodes to the right are the ones that we want. The one on the left is a product code; your :CueCat should scan it OK but LibraryThing won't have any idea what to do with it.



## Problem barcodes

Some stores, like Borders, Walmart and some others put stickers over the barcode on the back cover. The ISBN-13 barcode may still exist under the sticker or inside the front cover.



This is an example of a Borders sticker. You can see the ISBN-13 below – 978 7801410 198865. Borders stickers peel off very easily and, if you like you can scan the ISBN as usual.

If the sticker doesn't peel off then you may need to look for the barcode elsewhere and enter it manually.

LibraryThing does understand the Borders BINC codes on their stickers and, if you prefer, you can scan this. To let LibraryThing know that it should lookup the BINC code you need to check the Advanced Option on the Add Books page.

### Other ways to add

[Advanced options](#) | [add the book manually](#) | [import books](#)

- Skip confirmation (for barcodes and ISBNs)
- Entering Borders product codes ([about](#))

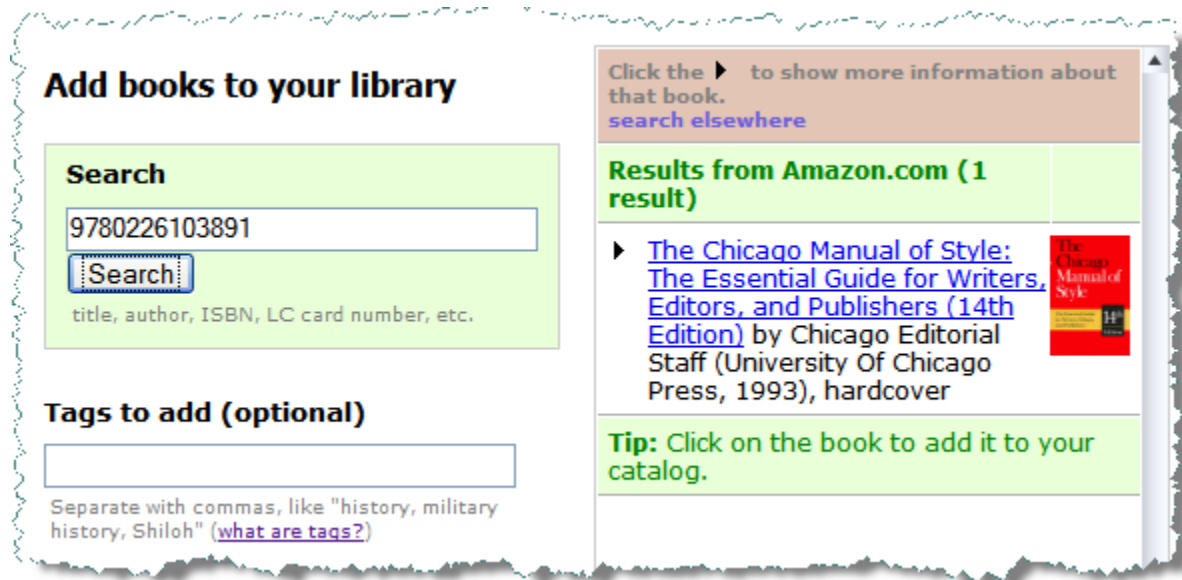
Other problem barcodes are those where:

- the printing is fuzzy or too small and the bars aren't distinct;
- there is a surrounding box that is too close to the code so the :CueCat can't decide where the code starts;
- the cover and code are printed in red or pink so the :CueCat's red light doesn't reflect properly;
- the barcode is too close to the spine so it is either distorted or there isn't enough white space to let the :CueCat see that it's ended; or
- the barcode is damaged – scratched, over-stickered, mis-printed, etc.

Sometimes you can get a result with persistence but most of the time it's better to give up and enter the code manually.

## Using the :CueCat with LibraryThing

The simplest way to enter books into LibraryThing is to scan directly into the 'Add Books' page. Put the cursor in the Search box and scan the ISBN-13 or ISBN-13+5 directly into the field, :CueCat adds a carriage return automatically so the search is automatic.



**Add books to your library**

**Search**

9780226103891

title, author, ISBN, LC card number, etc.

**Tags to add (optional)**

Separate with commas, like "history, military history, Shiloh" ([what are tags?](#))

Click the ► to show more information about that book.  
[search elsewhere](#)

**Results from Amazon.com (1 result)**

► [The Chicago Manual of Style: The Essential Guide for Writers, Editors, and Publishers \(14th Edition\)](#) by Chicago Editorial Staff (University Of Chicago Press, 1993), hardcover

**Tip:** Click on the book to add it to your catalog.

I just need to click on the title to accept the result that I want to add to my catalogue.

Once you gain some confidence and if you are prepared to accept the results, you can check 'Skip confirmation' in the advanced options and, if there is a single result returned then LibraryThing will automatically accept it.

That's really all there is to it.

## Troubleshooting

The :CueCat is a pretty robust device and it seems pretty rare for them to go wrong unless they are physically damaged.

The commonest problems are:

- You haven't quite got the knack of scanning yet and you get no output. Go back to the section above and test in a text editor with a good quality barcode laid flat on a desk. Vary the speed and direction, slide the :CueCat lightly over the code.
- You have a non-English keyboard, a Dvorak keyboard or some other non-standard device installed. Try resetting your computer to a standard English (US or UK) keyboard and see if it works OK. If it does then let Chris at LibraryThing know what your set-up is and he may be able to customise the code to recognise it (no promises).
- You're getting output OK but it doesn't seem right and LibraryThing can't recognise it. If it's encrypted then test the out put in the JavaScript :CueCat Decoder at [http://www.logorrhea.com/cuecat/cuecat\\_decode.html](http://www.logorrhea.com/cuecat/cuecat_decode.html). If this decodes correctly then

### Other ways to add

[Advanced options](#) | [add the book manually](#) | [import books](#)

- Skip confirmation (for barcodes and ISBNs)
- Entering Borders product codes ([about](#))

your :CueCat is most likely OK. You can then try pasting a known good encrypted code into LibraryThing to check that is working. The code below decodes to the ISBN-13+5 9780684849140 51500 and pasted into LibraryThing's search box set to amazon.com will find 'Why We Buy: The Science of Shopping' by Paco Underhill.

.C3nZC3nZC3nWCxjWE3D1C3nX.cGf2.ENr7C3v7D3T3ENj3C3zYDNnZ.

- After that your best bet is to post in the 'Cuecat questions and help' Group at LibraryThing.

## Acknowledgements

I spent several hours getting my first :CueCat to work and Googled many sites in the course of doing so. Some are named here, others I passed by and have since forgotten. I particularly acknowledge Norman Gennaro's pdf 'LibraryThing and Barcodes' from <http://groups.yahoo.com/group/Librarything/files/> which set me off on this road and gave me several useful sources; and, of course, Tim Spalding and friends for LibraryThing [www.librarything.com](http://www.librarything.com)

Bob Janes

6<sup>th</sup> July 2006

## Version History

Version 1	July 2006	basic notes on using a CueCat
Version 2	October 2006	added a section on de-clawing
Version 3	January 2007	added section on barcodes, main text extensively rewritten to take into account changes in LibraryThing

## Creating Barcodes for the :CueCat

The barcodes below are created in Microsoft Word using the 'Free 3 of 9 Barcode' font from Matthew Welch at <http://www.squaregear.net/fonts/> (NB there is another free font on the web called '3 of 9 Barcode' that did not work so well.) By experiment I found that I can print good readable barcodes on my LaserJet if I do the following:

- a) Turn off the automatic bold setting in Word – go to Tools | AutoCorrect Options . . . | AutoFormat and uncheck '[ ] \*bold\* and \_italic\_ with real formatting'
- b) Put an \* at each end of the text to be coded. Note: the standard font only includes upper case characters. I have used the Extended font on this page and for some unknown reason the :CueCat reverses the upper and lower case letters i.e. 'E' comes out as 'e' and vice versa.
- c) Put several spaces after the final asterisk to make sure that there is clear space for the scanner to start in (and before the first asterisk if necessary)
- d) Set the size of your font to about 36 point
- e) Set the font colour of the spaces and paragraph marker after your barcode to white, otherwise they may show up in the barcode and make it impossible to read. If you have problems look at your code and make sure that it starts and ends with the asterisk character (see below). Anything else makes the code unreadable.
- f) Make sure that there is vertical white space between barcodes. If they are too close the scanner may overlap and get confused.

You can also easily produce personal barcodes using on-line barcode creators and copying and pasting the resulting image see e.g. <http://www.barcodemill.com/> or <http://www.tec-it.com/playground>

Note: these Code 39 barcodes are not the same as UPC or ISBN codes which use a different font coding and are only numeric. See [http://en.wikipedia.org/wiki/Code\\_39](http://en.wikipedia.org/wiki/Code_39) for more information on Code 39 barcodes.



the asterisk code



\*1234567890\*



\*9781888316001\*



\*LIBRARYTHING\*

Footnote: all the barcodes here (and on the first page) will scan with my :CueCat when printed out on my LaserJet, or on my DeskJet. In the pdf version they have been replaced with gif files because the free barcode font will not distil into a pdf.

## De-clawing a USB :CueCat

De-clawing or modifying a :CueCat is the process of changing it to output code that is plain-text without the encryption or serial number.

**Caution:** This process works with later model USB :CueCats – those I bought from ElectroMavin, it may not be appropriate for earlier models or for PS/2 :CueCats.

Before going any further do check that your :CueCat works correctly. You should see a red flashing light in the nose when it's at rest – changing to a continuous brighter red light when you put the nose against a sheet of white paper. When you scan a barcode into NotePad (or some other text editor) you should see a text string like this:

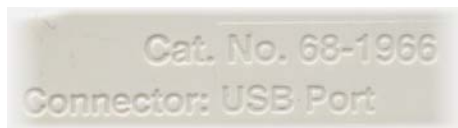
```
.C3nZC3nZC3nWCxjWE3D1C3nX.cGf2.ENr7C3v7D3T3ENj3C3zYDNnZ.
```

If this doesn't work then there may be a fault with your :CueCat and modifying it is unlikely to make that any better. So stop here!

If all is well and you are happy to go ahead . . .

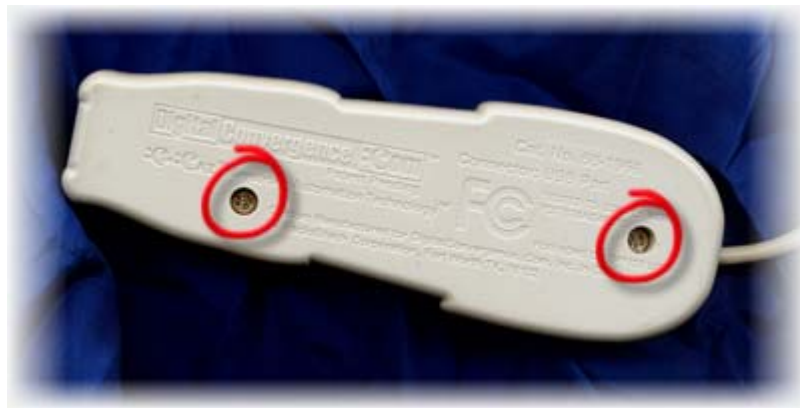
It's a simple process but needs a little confidence and some simple tools – a small cross-tip (Philips or Pozidrive) screwdriver to open it up, a sharp craft-knife or fine bladed pair of scissors to cut the single connection. Here's how to do it.

First unplug your :CueCat from your computer, then turn it over and check the type.



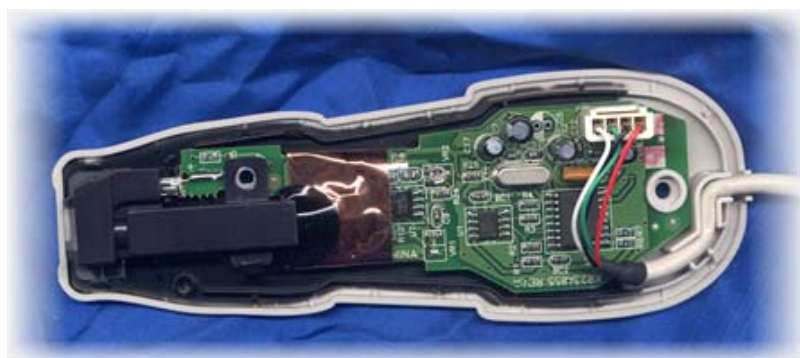
If yours is a USB model with the same or a similar Cat. No than carry on . . .

Next undo these two screws.



They can be a little tight to start with but should undo if you have the right size of cross-tip screwdriver. Hold the top and bottom of the :CueCat together while you remove them, you don't want any parts falling out.

When you've removed both screws put your :CueCat down on a table with the 'body shape' up. Then lift off the top part of the body – it should come quite easily and expose the working parts which look like this:



The parts that interest us are all at the back end here near where the cable enters.

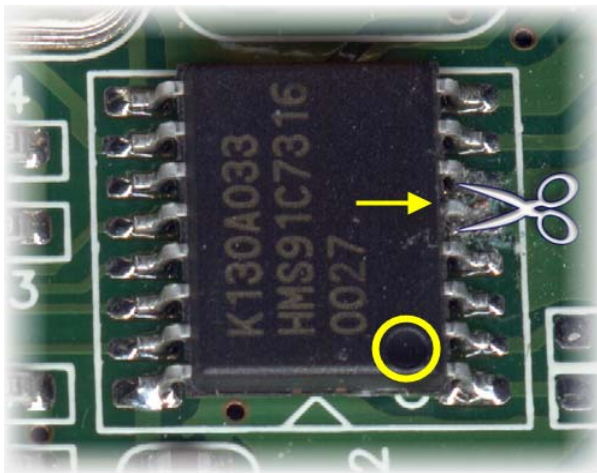
Note: At the 'nose end' where you can see that black cover there are some loose plastic parts: the black cover, a clear plastic prism assembly and a tiny plastic lens. You don't need to remove any of them but if you should accidentally knock them loose you can easily reassemble them as they all drop into place. The black cover goes last and locates under a clip at the bottom and over the round grey lug at the top.

Next, move lift the cable from its guide at the back end of the :CueCat to give you access to the chip (see the yellow arrow).



Then identify the chip you need to work on – in the yellow circle here, it's the bigger chip near the back end of the :CueCat.

Look carefully at the chip and find the locator marker – a round indent at one corner (marked here with the yellow circle):



Count up from the marker to the fifth connection leg on the chip and cut it, I used a sharp craft knife on this which is a bit messy (sorry about that). It's possible to use a sharp pair of scissors – like nail scissors to cut the leg as well.

Check that the leg is clear of the solder remaining on the circuit board and isn't touching either of the adjoining legs. If it is then use a small screwdriver to move it gently until it is clear.

Now replace the cable in it's guide – the shapes bent into it will show you how it goes; then put the top of the body back in place, turn the :CueCat over and replace the two screws.

That's it.

Check your work area to make sure that nothing has dropped out by mistake. If it has, open up your :CueCat and put it back.

Now plug your :CueCat back in to your computer and check the output. You should find that when you scan a barcode now you get plain text output instead of the previous encrypted string.

The only failures I have had are when I've left the cut leg touching one of the legs next to it. Moving it clear fixed the problem.

Good luck!