



QL Assembly Language Mailing List

Issue 9

Norman Dunbar

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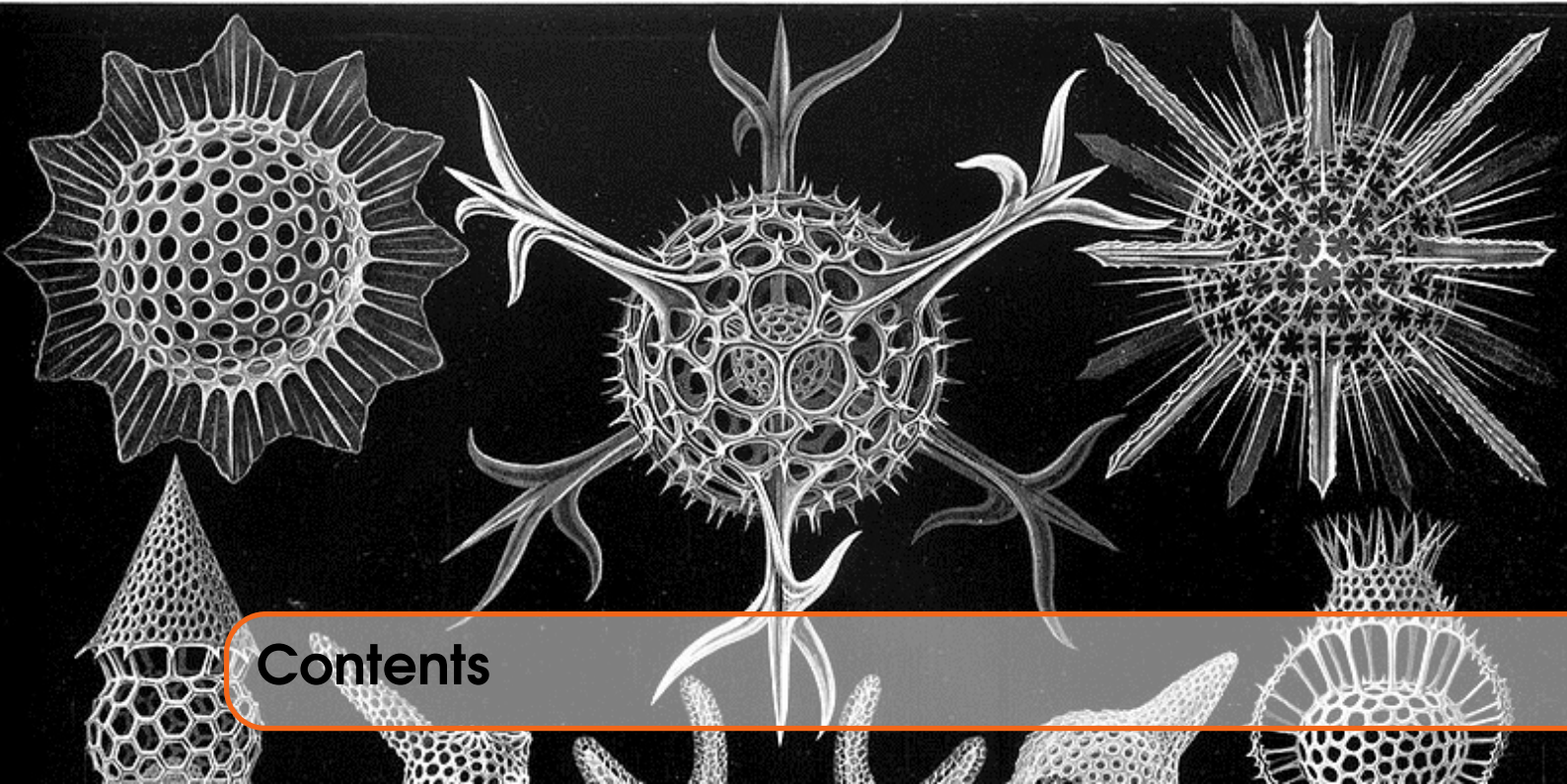
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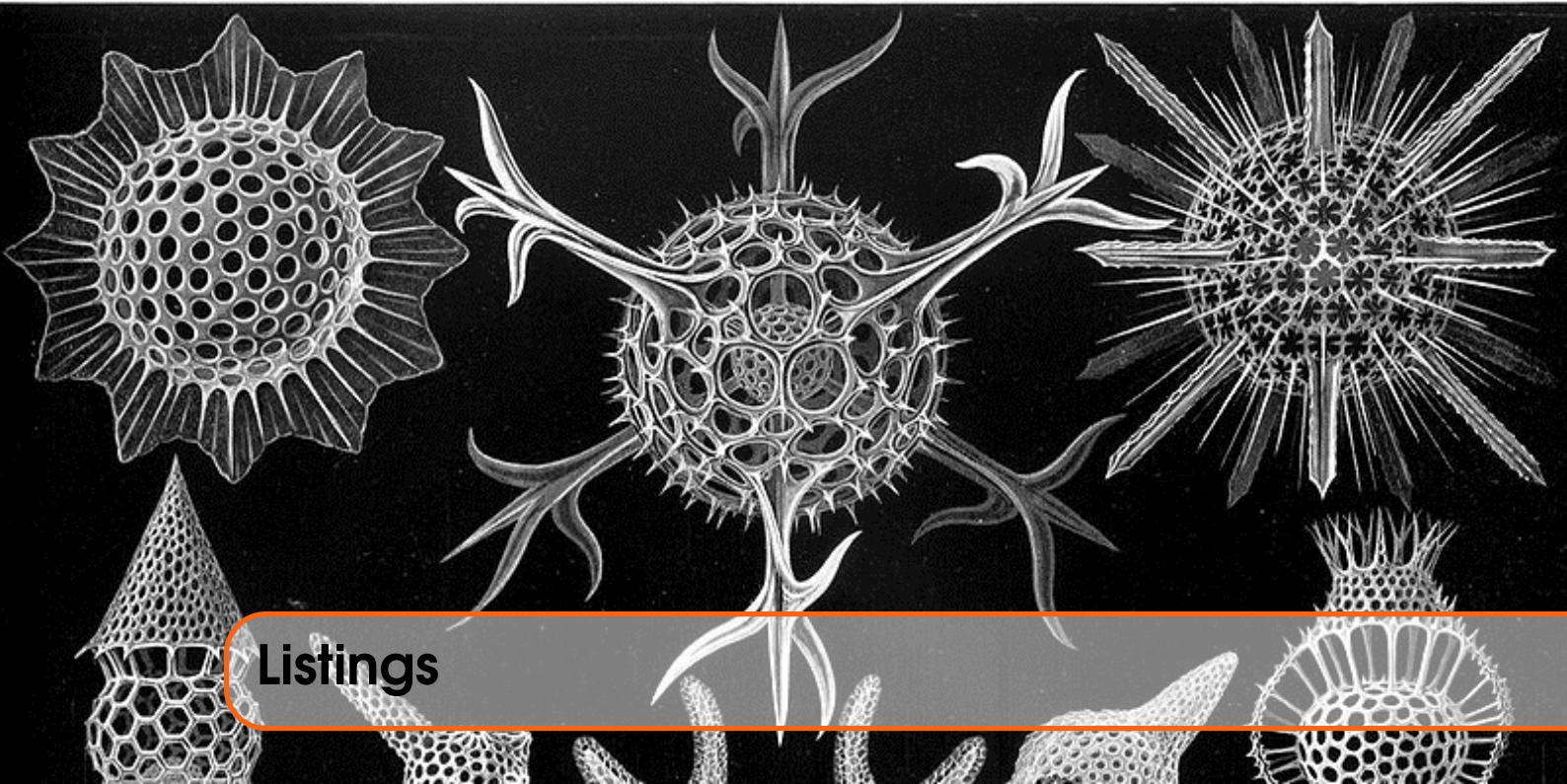
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1. Preface

1.1 Feedback

Please send all feedback to assembly@qdosmsq.dunbar-it.co.uk. You may also send articles to this address, however, please note that anything sent to this email address may be used in a future issue of the eMagazine. Please mark your email clearly if you do not wish this to happen.

This eMagazine is created in \LaTeX source format, aka plain text with a few formatting commands thrown in for good measure, so I can cope with almost any format you might want to send me. As long as I can get plain text out of it, I can convert it to a suitable source format with reasonable ease.

I use a Linux system to generate this eMagazine so I can read most, if not all, Word or MS Office documents, Quill, Plain text, email etc formats. Text87 might be a problem though!

1.2 Subscribing to The Mailing List

This eMagazine is available by subscribing to the mailing list. You do this by sending your favourite browser to <http://qdosmsq.dunbar-it.co.uk/maillinglist> and clicking on the link "Subscribe to our Newsletters".

On the next screen, you are invited to enter your email address *twice*, and your name. If you wish to receive emails from the mailing list in HTML format then tick the box that offers you that option. Click the Subscribe button.

An email will be sent to you with a link that you must click on to confirm your subscription. Once done, that is all you need to do. The rest is up to me!

1.3 Contacting The Mailing List

I'm rather hoping that this mailing list will not be a one-way affair, like QL Today appeared to be. I'm very open to suggestions, opinions, articles etc from my readers, otherwise how do I know what I'm doing is right or wrong?

I suspect George will continue to keep me correct on matters where I get stuff completely wrong, as before, and I know George did ask if the list would be contactable, so I've set up an email address for the list, so that you can make comments etc as you wish. The email address is:

assembly@qdosmsq.dunbar-it.co.uk

Any emails sent there will eventually find me. Please note, anything sent to that email address will be considered for publication, so I would appreciate your name at the very least if you intend to send something. If you do not wish your email to be considered for publication, please mark it clearly as such, thanks. I look forward to hearing from you all, from time to time.

If you do have an article to contribute, I'll happily accept it in almost any format - email, text, Word, Libre/Open Office odt, Quill, PC Quill, etc etc. Ideally, a \LaTeX source document is the best format, because I can simply include those directly, but I doubt I'll be getting many of those! But not to worry, if you have something, I'll hopefully manage to include it.



2. News

From time to time, I might have some news for you, in which case it will appear here.

The news this time is that there is an actual printed copy of the *QL Assembly Language* book available. This has been created, with my blessings, by a QL Forum member named “Tinyfpga” who prefers to read paper books as opposed to PDF files. I can’t disagree!

The original, and always the latest PDF version (I keep fixing small errors, grammar, spelling etc) will always be found at:

<https://github.com/NormanDunbar/QLAssemblyLanguageBook/releases/latest>.

If you prefer the paper version, it’s a “print on demand” thing. “Tinyfpga” has posted these instructions on the QL Forum:

<https://qlforum.co.uk/viewtopic.php?f=9&t=3294&start=40#p35207>

I’ve modified them slightly as it looks like the process has changed a little since first being published.

As mentioned in an earlier post I decided to “publish” (with permission) Norman Dunbar’s PDF book titled ‘QL Today’s QL Assembly Language Programming Series - Book one’ as a real book.

I decided to publish it as an A4 354 page, lay-flat book for easy referencing. The book costs £7.04 plus £3.50 for postage and packaging direct from the printers. The method I have used for very low cost one-off printing to order means that anyone wanting to buy a book has to use my account to do; so as follows:

- Go to www.bookprintinguk.com
- Login as documentsforams@gmail.com Password - forams11 (That’s not a spelling mistake, and it’s two digit ones on the end)
- Click on the Image of the book
- When the “What would you like to do” page comes up, click on the “Order More” link
- Select “order one copy” and then go next etc until you get to buy with your own name and address.

Hopefully, the process still remains the same.



3. Feedback on Issue 8

No long after release, I spotted a bug in the randomisation chapter in Issue 8. On page 49, in *Listing 7.3: Rnd 1 to 6 function - Part 1*, I had a comment on the line 67 which mentioned “divide by 65536”. That was complete nonsense, as that would have cleared the high word and not the low word.

Marcel spotted the error and advised me that the code was clearing overflow, not dividing. My mistake.

Marcel also spotted something else in the code I had blatantly stolen from the SMSQ sources.

It appears that the code in the `rnd` routine where we have this extract:

```
rnd
...
    mulu    #c12d , d0          ; HHHH * 49453
    mulu    #712d , d4          ; LLLL * 28973
...
    clr     .w    d0            ; HHHH 0000 (Divide by 65536)
...
```

Listing 3.1: Rnd 1 to 6 function - Part 1

could possibly be a typo! He believes that the code should be calculating a 32 bit by 16 bit multiplication – the expression:

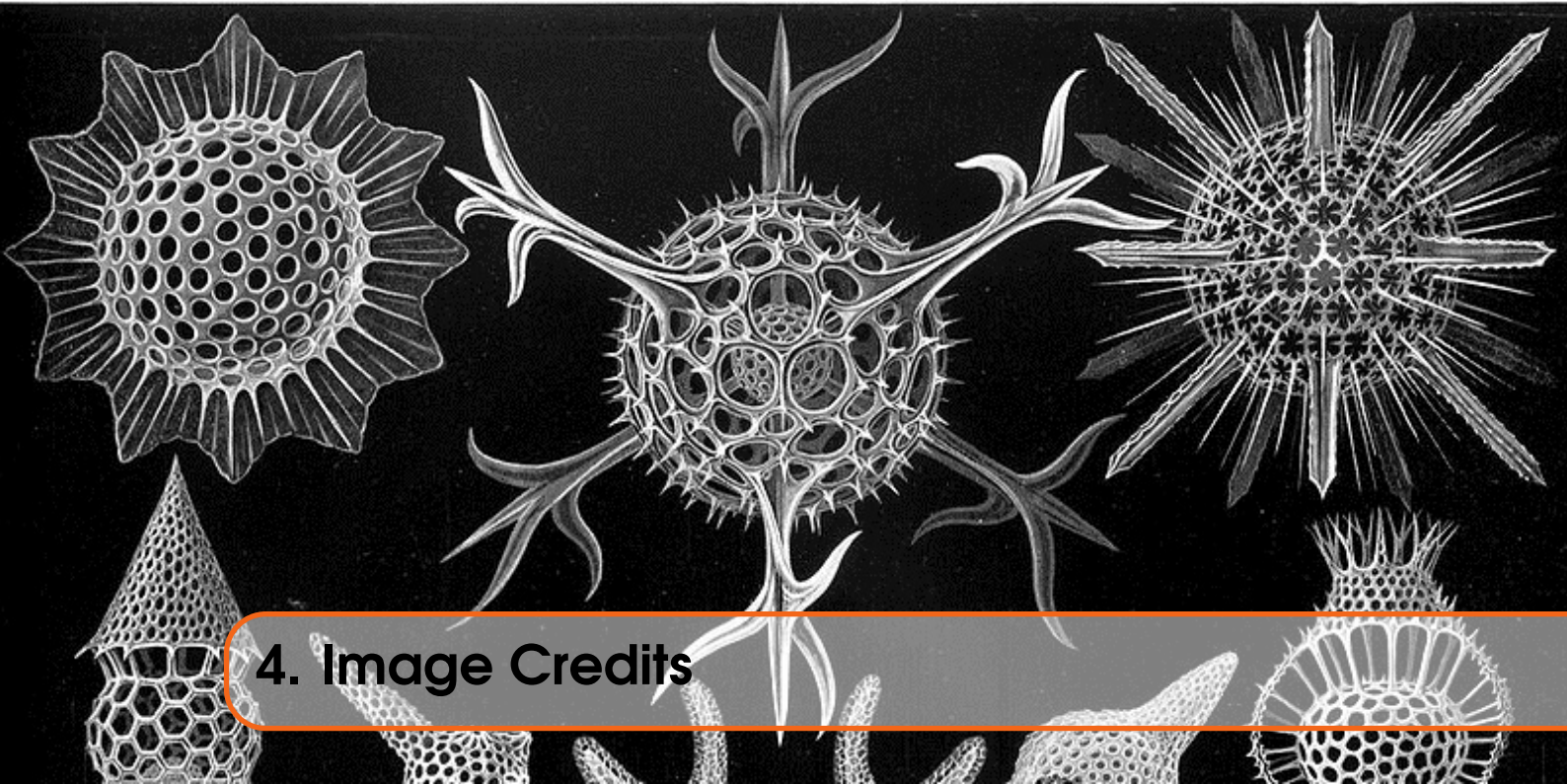
$$myRandSeed = myRandSeed * \$712D + 1$$

However, it seems to be this instead:

$$myRandSeed = myRandSeed * \$712D + ((myRandSeed \& \$F0000) * \$5000) + 1$$

Why both halves of the 32 bit random seed are not being multiplied by \$712d is unknown, perhaps the used of \$c12d is a typo, perhaps it's deliberate to make it more random. Nobody knows!

Thanks Marcel.



4. Image Credits

The front cover image on this ePeriodical is taken from the book *Kunstformen der Natur* by German biologist Ernst Haeckel. The book was published between 1899 and 1904. The image used is of various *Polycystines* which are a specific kind of micro-fossil.

I have also cropped the image for use on each chapter heading page.

You can read about Polycystines on [Wikipedia](#) and there is a brief overview of the above book, also on [Wikipedia](#), which shows a number of other images taken from the book. (Some of which I considered before choosing the current one!)

Polycystines have absolutely nothing to do with the QL or computing in general - in fact, I suspect they died out before electricity was invented - but I liked the image, and decided that it would make a good cover for the book and a decent enough chapter heading image too.

Not that I am suggesting, *in any way whatsoever*, that we QL fans are ancient.