Reviews

Astronomy with a home computer
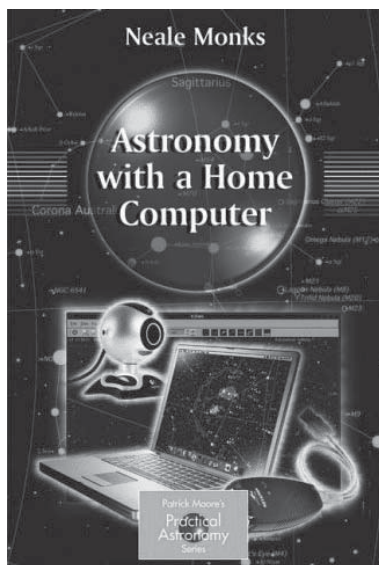
by Neale Monks

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This book claims to be a 'one-volume guide to just about everything computer-related for amateur astronomers' and 'for every amateur astronomer who owns a home computer.' One might have high expectations of such a book, but I found that neither of these claims is very well founded.

The first chapter gives an introduction to personal or home computers, including the ubiquitous Windows PC, Apple Mac and Linux running on PCs. For those familiar with these technologies, there will be nothing new; for those unfamiliar the lists of pros and cons may be useful, but a lot of the unexplained terminologies will confuse.

The second chapter looks at the use of the internet, covering equipment reviews, how to write reviews, how to write your own webpages (but without any detail on how to actually do it), and using email lists and newsgroups. Probably you could write a whole book on using the internet for astronomy, so one chapter is somewhat brief. Again it might help the novice, but anyone that already uses the internet will quickly skip through this.

Chapter three covers many different software applications, but tends to focus on planetarium and charting software. These have been grouped into lightweight, middleweight and heavyweight applications (by capability rather than price) and this is quite a good review of what is available. There are undoubtedly gaps, but the main players are here. Aside from planetarium and charting there is a brief mention of other applications such as moon mapping, and image viewers and double star modelling. The appendix lists a range of applications, but is by no means exhaustive.

The following two chapters are entitled 'Buying a go-to telescope' and 'Using and enjoying your telescope'. Although go-to telescopes are quite common, and can be used with a computer, I have a lot of difficulty understanding why in a book about home computing there should be two chapters about choosing a telescope and setting it up. To me these give the feeling of being added for padding. Actually both these chapters have quite useful content, but are completely out of place. There are good books on go-to telescopes that would probably be better buys, such as those by Weasner or Swanson from the same publisher.

The final chapter specifically covers webcam and digital camera imaging, and seems to get back on track again, though only lip service is paid to digital cameras, so don't expect to find anything about digital SLRs. Quite a good discussion about choosing a webcam is marred by a confusing explanation of CCD vs. CMOS sensors. There is a good explanation of stacking and processing images using 'standard' software (Photoshop), and constructing mosaics. Specialised software such as Registax is also covered but not in great detail – it is not a user's guide. So if you have found these programs hard to use this section will not be a great help.

There are a number of areas within astronomical home computing that are really not covered at all; image capture with CCDs or digital cameras, astronomical image processing tools, astrometry and photometry applications, and computational programs (statistical analysis, modelling of dynamical systems, modelling of physical processes for example). The world of computers and software applications and tools is rapidly changing, and I fear that a book such as this will quickly become out of date. Throughout the book poor grammar and typos are a major distraction. It would seem to have had little copy-editing or proof reading.

So, I am afraid, I find it difficult to recommend this book.

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