Tools for Mirror Internet sites

Mirroring files distributed by *http* or *ftp* servers consists in making regular copies of the files from the master source to another distant server. The copying is often carried out on a daily basis, at off–peak times and arranged to transfer only those files which have been changed since the previous copying operation.

Mirroring is useful in circumstances where the local (regional or national) network is fast but the connections beyond this fast region are considerably slower. The average number of times a file is read from the mirror server between modifications should be as large as possible. This implies that the larger the number of users of the mirror server and the slower the rate of modification of the files the more efficient and cost–beneficial the mirror server becomes.

The principal beneficiaries of the installation of a mirror server are the local users since the speed of delivery of information is increased for them. However the existence of mirror servers also diminishes the number of accesses to the master server, decreasing its work load, and further reduces the trafic on the overcongested, critically slow sections of the network. Nevertheless the onus for the setting up of mirror sites lies primarily within the local, regional or national context.

Mirror Software

The following *mirror* software is public domain and very easy to configure. Please note that mirror–2.3 uses Perl 4.x whereas mirror–2.5 needs Perl 5.x. The latest version of *mirror* is available from:

- src.doc.ic.ac.uk[3][146.169.2.1] directory: computing/archiving/mirror
- ftp.th–darmstadt.de[4][130.83.55.75] directory: pub/networking/mirror
- ftp.sun.ac.za[5][146.232.212.2] directory: pub/packages/mirror
- ftp://ftp.switch.ch/software/sources/mirror/[6]

Mirroring 'Crystallography World Wide'

The files of 'Crystallography World Wide', the crystallography section of the World–Wide–Web Virtual Library are openly available both by *http* and *ftp* protocols. For example the home page of CWW, the file crystal.index.html, can be found either by using *http* at URL http://www.unige.ch/crystal/w3vlc/crystal.index.html[7] or by anonymous *ftp* at URL ftp://ftp.unige.ch/pub/soft/crystal/w3w/w3vlc/crystal.index.html[8]. The mirroring software mentioned in the previous paragraph can be used to make a daily downloading of modified files from the anonymous *ftp* server. The single directory ...../w3vlc/ contains all of the 'Crystallography World Wide' files. Mirror sites should make their own version of the **crystal.credit.html** file in order to acknowledge the system resources of the mirror site. When a mirror site is up and running, the mirror site manager should inform the Crystallography World Wide editor[9] who will make the necessary modifications to the crystal.index.html and crystal.editor.html files.

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[1] http://www.iucr.ac.uk/iucr–top/welcome.html
[2] int.index.html
[3] ftp://src.doc.ic.ac.uk/computing/archiving/mirror
[4] ftp://ftp.th–darmstadt.de/pub/networking/mirror
[5] ftp://ftp.sun.ac.za/pub/packages/mirror
[6] ftp://ftp.switch.ch/software/sources/mirror/
[7] http://www.unige.ch/crystal/w3vlc/crystal.index.html
[8] ftp://ftp.unige.ch/pub/soft/crystal/w3w/w3vlc/crystal.index.html
[9] ../w3vlc/crystal.editor.html
[10] int.index.html
[11] http://www.unige.ch/crystal/ahdf/Howard.Flack.html