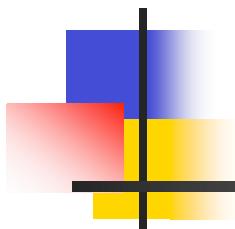


A Replicable Model Organism Information System



FlyBase next-generation
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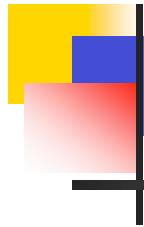


Portable FlyBase 1996-2002

FlyBase last-generation portable system structure
(1996-2002):

- common Unices supported; source code included
- installs and runs in any Unix path
- all via Apache web server & CGI (no separate standalone servers beyond FTP)
- update nightly from main server via FTP mirror job; ‘live-file-system’ mirroring (not tarballs)
- <ftp://fbserver:FlyBase@ FlyBase.net/>





FlyBase old structure

flybase-server/

 cgi-bin/ -- web CGI programs

 bin-local -> OS specific folder

 data -> ~ftp/flybase/data/ -- public data files (with FTP access)

 indices/ -- data search index files

 logs/ -- web logs

 mirror/ -- FTP mirroring software

 server/ -- public web pages and accessory data

 .etc/ -- accessory data, miscellany

 .srs/ -- SRS search engine

 aberrations/ -- many subject class folders

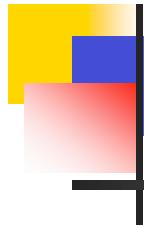
 anatomy/ genes/ maps/ refs/ seqs/ and others

 source/ -- program source code

 sun-sparc-solaris-bin/, sgi-irix-bin/ , linux-i86-elf-bin/ -- OS specific
 binaries

 Install*, Readme -- installation documents





FlyBase next-generation

/bio/biodb/

- common/
 - java/ ; perl/ -- language packages
 - servers/ -- major programs (blast, dbms, internet servers)
 - systems/ -- OS binaries of programs, packages
- docs/
- logs/
- myorg/ -- template information system structure
- flybase/ -- implemented project structures
- eugenies/
- daphnia/

rsync://FlyBase.net/biodb





FlyBase next-generation

- segregate common infrastructure from project-specific parts
- want customer-choice per-package installations and updates
 - need to find/make package distribution management utility
 - include logic to update infrastructure from source sites
 - focus on 'rsync' now as main distribution tool
 - evaluating RPM, pacman, cluster-backup tools, grid packaging tools
 - CVS management of biodb structure, package info, configs but not main programs, data, binaries
- per-project packages should be flexible in structure, content
 - project needs to specify infrastructure packages
 - need security/authentication options; private and public sections
- retain daily mirror-ability of current server
 - retain 'live file system' mirror/replication mechanism
 - for distribution & update of active servers
 - for local clusters to manage high-volume traffic
 - issues with rdbms and other stand-alone server updates
 - need install/update script to allow path choices, auto-restart servers





FlyBase NG structure details

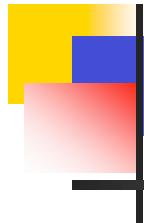
/bio/biodb common:

- *java*: axis, lsid, lucene, ogsa, xindice (others to move in)
- *perl*: lsid, (others to move in)
- *servers*:
 - apache, tomcat:
 - berkeleydb, mysql, postgresql, srs
 - blast
 - ldap, mirror, rsync, wuftpd
- hope to use 'plain vanilla' copies of these so updates are easy and customers can replace as desired
- customize per project and via configurations

/bio/biodb common:

- *source*: fbapache_1.3.26.tar.gz, mod_backhand-1.2.2.tar.gz, mod_layout-3.2.tar.gz, mod_throttle-312.tgz; postgresql-7.3.2.tar.gz, berkeleydb, mysql, rsync, blast, ...
- *system-local* -- common reference link to active system binaries
- *systems*: -- compiled binaries for common servers
 - apple-powerpc-darwin, intel-linux, sgi-irix, sun-sparc-solaris





MyOrganism project template

cgi-bin: -- web CGI programs

common -- symlink to common infrastructure

conf:

apache.conf -- virtual host include for main httpd.conf

apache.conf.local -- local host config (not mirrored)

apache.conf.in -- path-independent ; other project configs here

data: -- public data (symlink to FTP folder)

dbs: -- project databases (configs, scripts, common symlinks)

etc: -- miscellany

indices:-- database indices (update often)

secure:-- secure, authenticated access data, web

tmp: -- temporaries

web: -- public web structure

webapps: -- web Servlet programs

rsync.exclude.local -- project mirroring configurations





FlyBase NG implementation

cgi-bin: -- web CGI programs

common -- symlink to common programs

conf: apache.conf, apache.conf.in, apache.conf.local, cvsweb.conf

data: aberrations: allied-data: docs: extdb: genes: images: maps:
news: nomenclature: refs: work:

dbs: blast: srs:

etc: cytodb: expdb: gmod-fb: gnomap: icons: insitus: jdata: jlib:
kevin: other: people: perlbio: pix: plib: prefs: sean: stockxgene:
templates: tomcat transmolmaps: transseq:

indices: blast: srs: postgres:

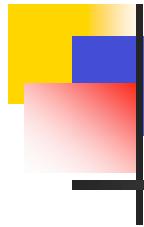
tmp:

web: aberrations: allied-data: alt-views: anatomy: annotfb: clones:
docs: fbservlet: gbrowse_fb genes: genome-projects: images:
index.html maps: people: pep: refs: robots.txt search: sequences:
stocks: transposons:

webapps: cv servlet: fbchado:

rsync.exclude.local





FlyBase NG issues

- Need soon for production FlyBase (summer 2003)
- Make work with gmod-web, other gmod tools
- What packaging/distribution management?
- Mechanics for public/private mixtures

In progress at <rsync://FlyBase.net/biodb/>
Web docs <http://FlyBase.net/flybase-ng/>

