

Documentation for LIGO Business Applications

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All databases are Microsoft Access 2000 databases. The term “web forms” refers to .htf files built using WebBase markup language which is a server-side scripting language with embedded html. These .htf files are served as web pages by WebBase server. TimeTarget software is used to schedule and run batch jobs. Files on antares are on the “C” drive and files on pherkab are on the “D” drive.

I. Document Control Center

A. Database Components

- \\antares\dcc\DcLivDoc\LiveDocs.mdb – main document database
- \\antares\dcc\DcLivLog\LiveLog.mdb – database of reserved document numbers
- \\antares\dcc\DcLivApp\DcLivAppVsn5.mdb – application forms, reports, and utilities used by DCC staff

B. Web Components Internal

- To search all documents in the main document database (<http://antares.ligo.caltech.edu/dcc/default.htf>)
- To search the database of reserved document numbers (<http://antares.ligo.caltech.edu/dcc/logdefault.htf>)
- To reserve a new document number (<http://antares.ligo.caltech.edu/dcc/numdefault.htf>)

The source code for the web forms is stored at \\antares\http\dcc.

C. Web Components Public

Public web forms are available for searching D, E, G, P, and T documents. The URL is <http://admdbsrv.ligo.caltech.edu/dcc/>, the database is stored at \\pherkab\workdir\dcc\LiveDocs.mdb, and the source code for the forms is stored at \\pherkab\http\dcc.

The source code for the public document search is identical to that for the internal document search (except for the help web page that describes the parts of a document number). The software applies a filter to return D, E, G, P, or T documents for a public search or to return all documents for an internal search.

D. Text Versions Internal

Text versions of the main document database are available.

- \\antares\http\dcc\docarchive.txt contains all documents through December 31, 2000
- \\antares\http\dcc\doccurrent.txt contains all documents from January 1, 2001 to the present

The URL is <http://docuserv.ligo.caltech.edu/docuserv/doclists.html>.

At the start of the calendar year, reset docarchive.txt and doccurrent.txt as follows. The queries and macros are in LiveDocs.mdb.

- Update qryDocAutList to the desired archive date range.
- Update qryDocKwdList to the desired archive date range.
- Update qryDocList to the desired archive date range.
- Run macro ExportDocArchive
- Update qryDocAutList to the desired current date range.
- Update qryDocKwdList to the desired current date range.
- Update qryDocList to the desired current date range.
- Run macro Nightly_DocLists.

E. Text Versions Public

The text files described in section D are available from the public web site at http://www.ligo.caltech.edu/LIGO_web/docs/doclists.html. This URL is not posted because the text files contain internal as well as public documents. The two text files are stored at \\pherkab\http\dcc and are refreshed nightly from antares via batch job \\pherkab\workdir\antares_copy.bat.

F. Batch Processes (Very Important!)

1. A macro named NightlyUpdate in LiveDocs.mdb runs each night to make important updates to the main document database and to generate files for the web components. These are the steps in NightlyUpdate.

- Refreshes the tables DocFiles and OrphanFiles (see section G below).
- Refreshes publication information in the table Doc.
- Refreshes the tables DocAutList and DocKwdList. These tables are used to generate the text versions of the main document database (see sections D and E).
- Refreshes the doccurrent.txt file (see sections D and E).
- Refreshes some files in \\antares\http\dcc that are used for document search.

2. The batch job \\antares\dcc\DcLivApp\backup.bat makes backup copies of LiveDocs.mdb, LiveLog.mdb, and DcLivAppVsn5.mdb to \\sirius\users\barbarak\dcc_bkp.

3. The batch job \\pherkab\workdir\antares_copy.bat copies files to pherkab each evening. These files support the public document search and public text versions of the main document database (sections C and E).

These jobs rely on drive mappings and barbarak should be the logged on user on antares and pherkab servers. These are the network drive maps.

```
Maps on antares
    U  \\sirius\users\barbarak
    W  \\pherkab\workdir
    X  \\pherkab\http
Maps on pherkab
```

X \\sirius\users\barbarak
S \\antares\dcc
T \\antares\http

G. Link to Electronic Documents

The main document database is linked to the electronic document directories. The macro NightlyUpdate runs each night to refresh the links. The macro deletes and rebuilds the tables DocFiles (electronic files with a main database entry) and OrphanFiles (electronic files without a main database entry). The source code is the module ImportFileNames in LiveDocs.mdb. This module calls the table DocDir. DocDir lists the names of directories containing LIGO's electronic document files. If you move or reorganize the electronic files, at a minimum you need to update the DocDir table. Depending on the changes, you may also need to modify DocFiles, Orphan Files, and ImportFileNames.

H. Manual Processes

The database LiveDocs.mdb must be compacted and repaired every 2-4 weeks when it reaches 80-90 MB in size. These are the steps:

- Shut down the WebBase server on antares.
- Rename LiveDocs.mdb to LiveDocs_befr.mdb.
- Start Microsoft Access; do not open any database.
- Choose Tools, Database Utilities, Compact and Repair Database from the toolbar.
- Select LiveDocs_befr.mdb as the Database to Compact From.
- Type LiveDocs.mdb as the Database to Compact To.
- When the compact/repair process is complete, restart the WebBase server.

Repeat the above process for LiveLog.mdb as needed. LiveLog.mdb grows more slowly.

II. LDAS Equipment Inventory

The system for LDAS Equipment Inventory has the following components:

- Database \\pherkab\workdir\ldas\ldas_equip.mdb.
- Web forms for entry and reporting stored at \\pherkab\http\ldas. The URL is <http://admdbsrv.ligo.caltech.edu/ldas/>. This URL is not posted.

The web forms have 3 levels of security:

- add, update, delete (AddUpdDel)
- add, update (AddUpd)
- read-only (ReadOnly)

The table tblAuth stores the user names, passwords, and permissions for the web forms.

III. LSC Meeting Transparencies

The system for LSC meeting transparencies has the following components:

- Database \\pherkab\workdir\meetings\ligo_meetings.mdb.
- Web forms for displaying LSC transparencies web pages at \\pherkab\http\meetings. A sample URL is http://admdbsrv.ligo.caltech.edu/meetings/lsc_default.htf?meetingid=8

The database was designed for LSC and PAC meetings and NSF reviews. So far, web forms have only been created for LSC meeting transparencies.

To create a web page for LSC transparencies:

- Enter meeting information in tblMeetings.
- Enter session information in tblSessions.
- Enter talk information in tblTalks.
- Post the web page with the appropriate meeting id.

IV. Publications

LIGO publications have a database that's separate from the main document database because

- the main document database can only store authors in alphabetical order rather than the order in which they appear in the publication
- the DCC may not enter all non-LIGO authors in the main document database
- the main document database does not have a field for the bibliographic reference and the DCC staff do not have a way to acquire this information
- a publication may not have a DCC number (sad but true)
- the DCC may not get a reprint of the publication and know the exact title
- the DCC frequently enters meeting information in the title line along with the title

The system for publications has the following components:

- Database \\pherkab\workdir\publications\Pubs.mdb.
- Web forms for displaying and searching publications stored at \\pherkab\http\publications. The main URL is <http://admdbsrv.ligo.caltech.edu/publications/>

Each night the Pubs.mdb database on pherkab is copied to \\antares\DcLivApp in batch job \\antares\dcc\DcLivApp\pherkab_copy.bat. This copy is needed to update publication information in the main document database (see section IF1 above).

To update the publications pages on the LIGO web site, open the Pubs.mdb database and enter the publication on the Add/Edit Publications form.

V. LSC Progress Reports and Research Plans

The system for LSC Progress Reports and Research Plans has the following components:

- Database \\pherkab\workdir\lsc\lsc_docsdata.mdb – main reports and plans database
- Database \\pherkab\workdir\lsc\lsc_docs.mdb – application reports and utilities
- Web forms for collecting reports and plans at \\pherkab\http\lsc. The URL is http://www.ligo.caltech.edu/LIGO_web/lsc/reports.html

Note the databases must be refreshed for each 6-month reporting period.

- Shut down the WebBase server on pherkab.

- Rename lsc_docsdata.mdb to lsc_docsdata_mmddyy.mdb where mmddyy is the reporting period that is ending.
- Copy and paste lsc_docsdata_template.mdb to lsc_docsdata.mdb.
- Delete the Organization table in lsc_docsdata.mdb and import the Organization table in the previous database.
- In lsc_docs.mdb, the dates in reports ResearchPlan and ProgressReport should be updated appropriately.
- Restart the WebBase server.

VI. LSC and LIGO Rosters

The system for the LSC and LIGO rosters has the following components:

- Database \\pherkab\workdir\roster\rosterdata.mdb – main roster database
- Database \\pherkab\workdir\roster\roster.mdb – applications forms, reports, and utilities
- Web forms for displaying and searching LSC and LIGO rosters at \\pherkab\http\roster. The URLs are http://admdbsrv.ligo.caltech.edu/roster/lsc_roster.htf – LSC rosters, http://admdbsrv.ligo.caltech.edu/roster/ligo_roster.htf – LIGO roster, <http://admdbsrv.ligo.caltech.edu/roster/default.htf> – LSC and LIGO roster search

As of this writing, the LIGO roster has not yet been posted on the LIGO web site.

To update the roster web forms, open the roster.mdb database and enter the information on the appropriate form.

Note the “people” entries on the LIGO roster are generated from rosterdata.mdb but the addresses and information on meeting rooms, control rooms, etc are embedded in .htf files in \\pherkab\http\roster.

VII. Advanced LIGO Costbook

The system for Advanced LIGO Costbook has the following components:

- Database \\pherkab\workdir\costbook\costdata.mdb – main cost database
- Database \\pherkab\workdir\costbook\costbook.mdb – application forms, reports, and utilities.
- Web forms for collecting and reporting cost data at \\pherkab\http\costbook

The Costbook web forms are password-protected. The table tblAuth stores the user names and passwords for the web forms.

VIII. Miscellaneous Information

WebBase runs as a service and starts automatically when a server is booted but TimeTarget must be specifically opened in order to work.

The LSC rosters, publications pages, and LSC transparency pages on the LIGO web site are database-driven pages. To update the contents of the web pages, you only need to add/edit data in the appropriate database. To change the layout or design of the web pages, you must change the contents of the .htf files.

All the databases in \\pherkab\workdir are backed up nightly to \\sirius\users\barbarak\pherkab_bkp using batch job \\pherkab\workdir\backup.bat.

The files in \\pherkab\http and \\antares\http are backed up manually as needed to \\sirius\users\barbarak\http_pherkab_mmddy and \\sirius\users\barbarak\http_antares_mmddy.

There are several databases stored in \\pherkab\workdir\gravitywave. These are the old LRC database and a master mailing list used for the Amaldi conference.

The 1999 Amaldi Conference database and web application are stored on the Amaldi server. The database is an Access 97 database and the web application is written using Active Server Pages and runs on IIS (argh!).