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**MIR DICOM Software**

**Central Test Node**

**Release Notes**

Revision 2.12.0  
November 16, 2000

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## Version 2.12.0 November 16, 2000

1. Added support for MySQL database. This was contributed by one of our users. We have done minimal testing on Linux.
2. Repaired memory leaks and socket handle in DUL facility.
3. Repaired some errors concerning threaded applications. The COND facility had a section of code that was not thread safe. Also, the Thread facility itself had a resource leak in the W32 environment.
4. Updated DCM library to support Unlimited Text VR.
5. Added function DCM\_GroupPresent. Tests to see if a group is found in a DCM object.
6. Added entries in group 0x0070 to help with Greyscale Presentation State objects.
7. Added support for storage of Greyscale Presentation State objects in the SRV facility, send\_image, simple\_storage, image archive.
8. Added support for storage of SR objects (Basic Text, Enhanced, Comprehensive) in SRV facility, send\_image, simple\_storage, image archive.
9. Added entries in the UID dictionary for Greyscale Presentation State storage class.
10. Updated DCM library and some applications for better support of VR Unlimited Text.
11. Updated application dcm\_modify\_object to handle the string ##### to signify an empty sequence.
12. Cleaned up some of the warning messages in the facilities. Many were caught by MSVC++.
13. Updated the MSVC++ project files to build Release versions of libraries/applications. Added more of the applications to the MSVC++ project file.
14. Add some file operations to UTL facility. These include a function to indicate if a path names a directory and a function to scan a directory and return the list of contents.
15. Corrected a memory reference error in SRV\_NCreateRequest. We were releasing the memory for a structure and then tried to reference it.
16. Updated TBL functions which support SQL Server. The software uses an environment variable to generate login information for the ODBC connection. In previous versions, if the environment variable (SQL\_ACCESS) was not set, we returned an error. Now we use a default value for making the connection.
17. Updated *dcm\_dump\_file* to search recursively through directories when dumping files. With the prior implementation, if the user specified a directory, the program tried to open it as a DICOM file and died.
18. Added the application *ctn\_version* which prints the current version information.
19. Repaired the PostgreSQL configuration scripts for the image archive. There was an error in the table for patient level attributes.
20. Updated the Installation Guide. Moved much of the detailed information to the Appendix section. Simplified the installation procedure (we hope).

### **Version 2.11.3 May 12, 2000**

1. Changed and documented new install procedure for Windows/MSVC++ 6.0.
2. Fix a problem in the dulprotocol library. For simple\_storage and other server applications, we were not correctly closing sockets in the windows environment.

### **Version 2.11.2: March 17, 2000**

1. Fixed a bug in dcm\_dump\_element when the output file was opened. The file is now opened in binary mode (which is important for those binary attributes like rows, columns, pixels).
2. Added environment and makefiles for Linux (Redhat 6.0) using lesstif as a Motif clone ([www.lesstif.org](http://www.lesstif.org)).
3. Updated data dictionary according to Supplement 23. Added a few definitions from Supplement 33, but dictionary is incomplete.
4. Updated dcm\_create\_object to support the Date/Time VR.
5. Add -f switch to dcm\_dump\_file. This formatting switch indents sequences according to the level of nesting.

## Version 2.11.1: January 26, 2000

1. Removed the definition of DCM\_PATSSN from facilities/objects/dicom\_objects.h. This was a mistake as DICOM never defined an attribute for Social Security Number.
2. Changed the creation of links in the facilities to libsrc directory from absolute path to relative path. This should make it easier to move the source tree.
3. Add support in parsing routines for DICOM VR of UN (unknown).
4. Add function DCM\_MergeObject.
5. Update data dictionary with values that were useful in IHE Year 1.
6. Added a short delay in DUL\_AcknowledgeRelease for Linux systems. They were closing the socket too soon. (Really means we need to take another look at our state machine.)
7. In the parse functions for N-Event Responses, removed our (incorrect) requirement that the peer application include the Affected SOP Instance UID.
8. In facilities/services, added support for MPPS and MWL classes.
9. In the application dcm\_create\_object, add support for a symbol to allow the creation of empty sequences.
10. Add two command line switches to send\_image. The -p flag indicates that we create pixels (for a file without its own pixels); the -u flag allows us to replace the SOP Instance UID in the image.
11. In simple\_storage, add support for Digital X-Ray for Presentation SOP Class.
12. Corrected errors in environment files for Linux/sybase and Linux/mSQL.
13. Added support for LessTif in the Linux environment. Created new set of environment files for the psql/LessTif combination. They have lesstif in the name.
14. Fixed a bug in facilities/xutl which caused a core dump when X-based applications could not load a font.
15. Added more documentation on PostgreSQL notes in the *Installation Guide*.

## Version 2.11.0: January 7, 2000

1. Added `blg.h` to the distribution. This is not used in the standard release, but shows up in some of the files and is caught by `MSVC++`. It is easier to include the file in the release than to get `MSVC++` to ignore it.
2. Added entries in `services/get.c` which describe estimated images sizes for other modalities (e.g., PET).
3. Minor change to protocol of `TBL_Select`. The second argument of the callback function is now a long (rather than an int).
4. Added the test images to the `ctn ftp` site as described in the *Installation Guide*.
5. Corrected the default database name in the `storage_commit` application.
6. Added a compile-time flag to the linux master configuration file (`TIMEOFDAYARGS`).
7. Add support for PET images in the services facility. Add some estimates for image sizes for Ultrasound in the services facility.
8. Add facility numbers for IDBMB (Multibyte IDB), TBLMB (Multibyte TBL), and CHR (character manipulation).
9. General cleanup of arguments in functions. Lots of things that were declared `char*` and now `const char*`.
10. Added support in IDB to allow databases to be opened multiple times.
11. Added support for the PostgreSQL database ([www.postgresql.org](http://www.postgresql.org)). Usage terms are more favorable than `mSQL`.
12. Added extra checks in IDB for meta-characters in search strings to support PostgreSQL. PostgreSQL handles the meta-characters and the like operator differently than Sybase and `miniSQL`.
13. Add a function `DCM_GetString` which can be used as a convenience function to get `ASCIZ` strings from `DCM_OBJECTs`.
14. Update the DCM parsing function. When resolving differences in VR, take the value from the input when they say OW (explicit xfer syntax).
15. Changed the Makefiles so the default installation does not build the GUIs. This has caused problems for the Linux users (who don't have Motif by default).
16. Correct memory leaks in the `archive_server` when using threaded or fork mode. Repair a problem that did not allow proper implementation of the fork model.
17. Changed default behavior of `archive_server` so that it deletes files that are not stored properly in the database. Previous code just left the file sitting in a directory with no database pointer to it.
18. Updated the storage service class (in facility SRV) to support all storage classes listed in PS 3.4, Table B.5-1 (1999). Likewise, updated `simple_storage` and `archive_server` to support those storage classes.
19. Added a new facility XUTL which is used to display text strings in X-Windows applications.
20. Changed the mechanism for building the CTN libraries. We now build one large library rather than one for each facility. Please refer to *Installation Guide*.
21. Separated the Motif applications from other applications in the build process. Please refer to *Installation Guide*.
22. Provide better support for Linux installation. We now build and test with Red Hat 6.0.