

Computer Network Operations
Policies and Procedures

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Submitting Material For Multics Libraries

There are three libraries that can contain material submitted by users. CNO incurs the storage costs associated with all of these libraries. This document briefly describes the characteristics of each of these libraries and then gives detailed information on how to submit material for inclusion in one of these libraries.

First of all, the three libraries are:

author-maintained library
>system_library_auth_maint
(>aml)

applications libraries
>libraries>**
(>lib>**)

user-shared libraries
>udd>libraries>**
(>udd>lib>**)

The general content of the three libraries, the source of the programs and some examples, and CNO's responsibility for each library are briefly outlined below:

Library	Library Content	Content Source	CNO Responsibility For Content
>aml	tools of general interest to most users	user-written (e.g., ocs, whom)	all administrative, no maintenance; CNO support level 3 or per applicable Service Specification
>lib>**	special interest software packages	mostly purchased from vendors by CNO; some user-written (e.g., IMSL)	all administrative, all maintenance; CNO support level 3 or per applicable Service Specification
>udd>lib>**	special interest software packages	user-written or purchased from vendors by divisions (e.g., ADA, micro)	no administrative, no maintenance; no support

To summarize the differences among the libraries--

- The author-maintained library generally contains individual programs whereas the other two libraries generally contain software packages (often consisting of more than one program).
- The author-maintained library contains material of general interest to most users whereas the other two libraries contain material of interest to special groups of users.
- Only the author-maintained library is in the Multics system standard search rules. Thus, programs in this library are automatically found by the system and are potentially available to all users. Obviously, these programs must meet very high quality standards, the same standards embodied by system commands or subroutines.
- The primary difference between the applications libraries and the user-shared libraries is the major criteria used to determine whether a software package is deemed acceptable: for the applications libraries, the package must meet certain programming standards so it is possible for CNO to maintain and support the package; for the user-shared libraries, the package must merely be needed by more than one division or department and these divisions/departments must be willing to take the responsibility for the support and maintenance of the package.

MULTICS REVIEW BOARD

A Multics Review Board (MRB), consisting of members of the CNO staff and others, determines which programs or software packages are deemed technically acceptable. The MRB also determines which of the three libraries is appropriate, and, when necessary, determines a name for a new "sublibrary".

It will be the responsibility of the MRB to verify that the policies described in this document are met. It is obvious that these policy statements demand that the MRB make arbitrary decisions; however, the MRB will make every effort to work with the submitter on any areas the MRB members consider "inadequate" and give the submitter the benefit of the doubt whenever possible.

INCLUSION IN LIBRARY VERSUS ACCEPTANCE AS SERVICE

It is important to realize that MRB approval and subsequent installation of a program or software package into one of the libraries does not automatically make that program or software package a part of the CNO Multics service. Each of the services provided by CNO must be identified in a Service Specification. The Service Specification describes the service in question by briefly telling what it is, how it is accessed, where it is documented, etc. All Service Specifications must be approved by CNO management.

Programs or software packages installed in either the author-maintained library or the applications libraries automatically have a CNO support level of 3. Any item in either of these libraries could become a service; if so, it will have its own Service Specification and that will describe the applicable CNO support level.

OVERALL SUBMITTAL PROCEDURES

The basic procedure for submitting material for any one of the libraries is as follows:

1. Determine which library should get your program(s), based on the information in this document. (However, final library determination is at the discretion of the MRB.)
2. Get the proper forms for the appropriate library from CNO. (Either send Multics mail to Admin.SysAdmin or contact the CNO manuals librarian.)
3. Fill out the forms, using this document as a guide.
4. Submit the completed forms and other required documentation (described in this document) to the MRB (attn: CNO manuals librarian, MN12-2187). For specific information on documentation requirements, for both info segments and hardcopy material, refer to PP-003.
5. Attend the MRB meeting if at all possible (someone will let you know when and where the meeting will be held). The results of the meeting will determine what steps, if any, you take next.

The rest of this document describes the three libraries in more detail and explains the policies and procedures for submitting material to any one of the libraries. In addition, this document includes a copy of the submittal forms and gives instructions on how to fill out the forms. Finally, as a user aid, completed examples of submittal forms to all three libraries are shown.

For the reader's convenience, the remaining contents of this document are listed below.

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CONTENT OF AUTHOR-MAINTAINED LIBRARY

The author-maintained library (AML) is a collection of useful commands and subroutines that have been developed by users of the Multics system. Since the AML is in the standard search rules, these programs are available to all users of the standard system except those specifically limited to some subset of the system. As the name implies, the programs are maintained by the authors in the sense that they are responsible for correcting any deficiencies that might appear and resubmitting the updated versions. The library itself can only be changed (programs added, deleted, or replaced) by the CNO staff.

Users are encouraged to submit programs to the AML; in fact, there are some benefits to them in doing so. For example, it relieves them of the bother of distributing instructions, etc. to interested users, it assures them of a reasonably wide "testing community," it frees them from the necessity of keeping a stable version of the program in their directory while they experiment with fixes and changes, it opens lines of communication with others working on similar problems, and it helps avoid redundancy of effort.

There are some potential pitfalls to the AML. CNO must be careful that the AML consists of programs of general usefulness to the Multics community and does not simply become a means for avoiding storage charges. Furthermore, CNO must also be assured that the author of a program not only intends to support it, but has the resources to do so. (Since the AML is in the standard search rules, users consider CNO ultimately responsible for the AML programs, despite policy to the contrary. Therefore, CNO will make every possible effort to ensure that the author fully understands his continued responsibility for the programs he submits.)

CRITERIA FOR INCLUSION IN AML

1. General Usefulness

The program must be determined to be of potentially general usefulness before it will be installed in the AML. This decision will be made by the MRB with advisory members called in at the board's discretion. In addition to the proper forms, the material submitted to the MRB should be the user documentation (see item 5 below) for the program plus any material the author wishes to enclose describing cases of application. It is assumed that if the MRB feels inclined to turn down the proposed program that this fact will be communicated to the author and he will be given an opportunity to strengthen his case before the final decision is made. However, the decision of the MRB must be final; appeals will not be allowed.

Programs that have been accepted for the AML will be monitored, and if after several months their usage does not seem to justify continued existence, the authors will be notified and the programs removed. The required amount of usage will, of course, depend greatly on the cost to CNO of storing the associated segments and producing the documentation.

DESCRIPTION

AUTHOR-MAINTAINED LIBRARY

2. Maintainability

Since it must be assumed that sometime in the future the program or subsystem may have achieved a high degree of usage and may require the CNO staff to assume maintenance responsibilities, the maintainability issue must be faced initially. To do this, MRB members and others the board may delegate will look through the code and the documentation of the code and determine if, in their opinion, this program could be maintained by CNO personnel if necessary. If their findings are that the program is not maintainable, their recommendations for improvement will be forwarded to the author for his action. If he feels that he can correct the deficiencies, he may resubmit the program to this test.

The fact that CNO has accepted the program as maintainable does not imply any intention by CNO to do so. It remains the author's responsibility to maintain the program and correct any errors or deficiencies that may be uncovered by its use. If, after the program has been submitted to the AML, the author shows a lack of responsiveness to trouble reports and problems that appear, CNO may consider this grounds for removing the program from the AML.

3. Stability

A program submitted for inclusion in the AML will be considered to be in a completed state. The program must be considered stable, i.e., to be in a final, steady state both for the users and for the author himself. Towards this end the author will not have access to the version of the program except to use it in the same way all other users can. Changes can only be made by submitting a new version of the programs and, if necessary, new documentation. A program that appears to be in a state of flux by virtue of the number of changes will be removed from the AML.

4. Reliability and Accuracy

Since it will be difficult in the beginning to determine the reliability and accuracy of the programs accepted into the AML, they will be assumed to be operating properly. Experience by the user community will be the test, however, and even though the author may appear to be responsive to the trouble reports on his program, if the volume of reports or other experience demonstrate that the program is highly unreliable, CNO will remove it from the AML. If at a future time the author can demonstrate that he has cleared up this unreliability, the program may be resubmitted.

5. Documentation

Each program submitted to the AML must have at least one info segment and also hardcopy (similar to the MPM Commands format) documentation. The info segment(s) will be installed in >doc>installation_info_segments. The hardcopy documentation will be kept on file, printed, and distributed by CNO. For information on how to write info segments or hardcopy documentation, refer to PP-003.

6. Obligation of CNO

It should be carefully noted that accepting a program for the AML does not imply any obligation on the part of CNO except that of printing and distributing supplied user documentation, funneling trouble reports to the author, and providing the necessary storage space for the segments involved. Accuracy of the program will not be guaranteed by CNO. Programs in the AML have level 3 support as defined in the CNO Service Specifications. However, any programs that are part of the CNO Multics service (i.e., have their own Service Specification) have the level of support described in the applicable Service Specification.

7. Acceptance Into the Standard System

Programs that appear to be of general usefulness and reasonable to maintain may, with the author's consent, be submitted to H.I.S. for possible inclusion in the standard Multics system. Hopefully the AML can provide one avenue for enhancement to the standard Multics system, and programs that appear to be of general usefulness and are reasonable to maintain will be considered for submission or sale/licensing to H.I.S. The first procedure will be to secure the author's consent, however, and if the author is no longer available, the continued existence of the program in the AML will be taken by CNO as implied consent by the author. An author may, on leaving, request that his program be removed from the AML. If in the opinion of CNO this would create a hardship on the CNO Multics user community, CNO will communicate this to the author and offer to take over the maintenance.

8. Duration

Generally a program will remain in the AML as long as someone is willing to maintain it and it has continued to meet the reliability and stability requirements. Periodically, however, all AML entries will be reviewed, and unless there is a responsible maintainer of the program, CNO will enter a notice in the message of the day and, assuming that no user comes forward to assume maintenance responsibility, will remove the program from the AML.

CONTENT OF APPLICATIONS LIBRARIES

The applications libraries are collections of commands, subroutines, and subsystems that are useful to specific sets of users. Each applications library contains a group of programs that are similar in nature and are of interest to a significant number of users. Most of the programs that are in the applications libraries consist of software packages purchased from outside vendors; however, it is possible that user-written packages or groups of programs converted from another system such as the HCN could be accepted into these libraries.

All users except those specifically limited to some subset of the system have access to all of the applications libraries. However, the applications libraries are not in the standard search rules. Users can access an applications library by either adding that library directory to their search rules or linking directly to the specific command or subroutine they want.

CNO is responsible for the maintenance of the applications libraries. In the case of purchased software, appropriate arrangements for maintenance, changes, corrections, and extensions are made with the vendor; however, even in this case the administrative tasks of actually installing and updating material are the responsibility of CNO.

Documentation for the applications libraries, both info segments and hardcopy, is the responsibility of CNO. Vendor-supplied documentation is distributed through CNO. Documentation for other groups of programs is written by either the author or the contributor; it is kept on file, printed, and distributed by CNO.

One of the major considerations for acceptance into one of the applications libraries is how applicable the software is to the Multics environment; another is the amount of conversion required. In other areas, acceptance requirements are similar to those of the AML. More information on these requirements is given below.

CRITERIA FOR INCLUSION IN AN APPLICATIONS LIBRARY

1. Usefulness

The program or software package must be determined to be useful to a specific set of users before it will be installed in an applications library. This decision will be made by the MRB in the same manner in which the general usefulness of an AML submission is made.

Monitoring of the applications libraries will also be done as described in the general usefulness portion of the AML criteria.

2. Maintainability

CNO personnel are responsible for the maintenance of the applications libraries. With this fact in mind, the MRB members and others the board may delegate will look through the code and the documentation of the code to determine if the program is maintainable. As with the AML, if their findings are that the program is not maintainable, their recommendations for

DESCRIPTION

APPLICATIONS LIBRARIES

improvement will be forwarded to the vendor or submitter for action. If the vendor or submitter feels that he can correct the deficiencies, he may resubmit the program to this test.

3. Stability

Same as the AML.

4. Reliability and Accuracy

Same as the AML.

5. Documentation

Each program or software package in the applications libraries must have at least one info segment. A short info segment, giving a general description of each applications library will be written by CNO and will be installed in >doc>installation_info_segments. Other info segments, specific to individual programs within the applications library, will be installed in a subdirectory (named "info") of this library. Hardcopy documentation must be provided for each applications library. The hardcopy material may be either vendor-supplied or written by the author or contributor. Except for vendor-supplied documentation, the hardcopy material should conform to the standards described in PP-003. CNO will distribute all hardcopy documentation for the applications libraries.

6. Obligation of CNO

CNO is responsible for the maintenance and support of the applications libraries structure. Programs in the applications libraries have level 3 support as defined in the CNO Service Specifications. However, any programs or software packages that are part of the CNO Multics service (i.e., have their own Service Specification) have the level of support described in the applicable Service Specification. CNO is also responsible for the distribution of vendor documentation and the printing and distribution of other, nonvendor documentation. In addition, CNO is responsible for handling trouble reports and providing the necessary storage space for the segments involved.

7. Acceptance Into the Standard System

It is assumed that H.I.S. is aware of vendor packages. However, CNO will consider any other applications library packages that are useful and reasonable to maintain for submission or sale/licensing to H.I.S.

8. Duration

Each applications library will remain on the system as long as the programs in it meet the reliability and stability requirements and the library has a moderate level of usage.

CONTENT OF USER-SHARED LIBRARIES

The user-shared libraries contain commands, subroutines, and subsystems that are of interest to a specific set of users. Programs in these libraries may be either user-written or purchased from vendors by one or more divisions. However, these programs need not meet the high maintainability, reliability, and stability criteria of either the AML or the applications libraries; in fact, none of these matters are an issue to the MRB. The overriding issue is that multiple divisions or departments need to use the programs in question and these divisions (or departments) are willing to accept responsibility for the maintenance and support of the programs. The purpose of having user-shared libraries is twofold: to encourage sharing of software among users and to avoid duplicate copies of software, which unnecessarily use up system storage space.

Material other than executable Multics programs may be submitted to the user-shared libraries. Thus, users may include code intended to run on a non-Multics target computer, data bases, or useful program fragments (e.g., templates) in a user-shared library. (Currently, such material can be submitted for inclusion in only a user-shared library.)

CNO incurs the storage costs associated with all the user-shared libraries. Thus sheer size of a package may influence the MRB decision. Also, since storage costs are eventually shared by the entire user community, it is only fair that anyone in the user community be able to use programs in these libraries if desired; thus, access restrictions are not allowed.

The divisions and/or departments that wish to sponsor a user-shared library must designate one person as the installer/maintainer. This individual will have complete control of this user-shared library so it is important that the person understand, appreciate, and accept this responsibility. The sponsors should take care to pick an individual who is a well-trained programmer with at least a moderate knowledge of the Multics system; in addition, they must allow this individual the time necessary to complete the tasks at hand. The responsibilities of this person include: establishing a criteria for inclusion in the library; establishing a policy regarding changes, corrections, or extensions to a program; determining that suitable documentation is provided (good info segments at the very least); and providing education to use the programs as necessary. In addition, this person must control the access to the contents of the library in the appropriate manner; that is, make sure the entire Multics community has access to the programs.

The user-shared libraries are not in the standard search rules. Users must either add the library directory to their search rules or link directly to the specific command or subroutine they want in order to access the material.

For user community convenience, CNO will set up a consistent structure of subdirectories within each new user-shared library. CNO will then give appropriate access to the individual chosen by the sponsors. From this point on, CNO has no involvement with this user-shared library other than to direct inquiries to the appropriate individual. The six standard subdirectories are:

info	executable (e)
source (s)	update (work, test)
object (o)	include (incl)

DESCRIPTION

USER-SHARED LIBRARIES

CRITERIA FOR INCLUSION IN A USER-SHARED LIBRARY

1. Usefulness

If divisions and/or departments want to use the programs and are willing to maintain and support the programs, the MRB will judge the programs to have passed the usefulness criterion.

2. Maintainability

No concern of the MRB; sponsors' concern.

3. Stability

No concern of the MRB; sponsors' concern.

4. Reliability and Accuracy

No concern of the MRB; sponsors' concern.

5. Documentation

CNO will write a short info segment, giving a general description of the user-shared library and will install this segment in >doc>installation_info_segments. It is highly recommended that info segments be written for the various programs in the user-shared library and installed in a subdirectory (named "info") of the user-shared library. It is the duty of the installer/maintainer to see that these info segments are written, installed, and kept up-to-date. Any requests that CNO receives for hardcopy documentation will be referred to the installer/maintainer.

6. Obligation of CNO

CNO will create the user-shared library and its subdirectories and give the appointed individual access to these subdirectories. Because CNO incurs the storage costs, CNO will periodically check through the user-shared libraries to make sure extraneous segments are not left in the libraries either by mistake or to avoid rightful storage charges. CNO will direct all inquiries about a user-shared library to the individual in charge of that library by sending mail to a mailbox created (by CNO) in the user-shared library. In addition, CNO will send any applicable trouble reports to the installer/maintainer through this special mailbox.

7. Acceptance Into the Standard System

Not applicable. The assumption is that if the user-shared library programs met the maintainability, reliability, and other requirements of either the applications libraries or the AML they would be in one of those libraries instead of the user-shared library.

8. Duration

Each user-shared library will remain on the system as long as the library has a moderate level of usage and the divisions or departments are willing to accept responsibility for the maintenance and support of the library.

DESCRIPTION

USER-SHARED LIBRARIES

SUBMISSION PROCEDURE FOR EITHER THE AML OR APPLICATIONS LIBRARIES

Persons wishing to submit programs for inclusion in either the AML or an applications library must fill out a library submission form, which is entitled "Request for Submission to Multics AML or Applications Library." To get this form, contact the CNO manuals librarian or send mail to Admin.SysAdmin.

A library submission form identifies a change to the Multics libraries. A "change" to the Multics libraries is defined as the addition, deletion, or modification of one or more segments within the library. The library submission form should be used to provide two types of information to the MRB: first, appropriate descriptions of the user-visible effects of the change (for example, "make a Level 6 FORTRAN cross compiler available"); second, detailed descriptions of everything needed by CNO to actually install the change in the libraries.

A separate submission form is required for each logical change to a library. The size of the change or the number of segments involved is not the important criterion. For example, fixing two unrelated bugs in different AML segments would require two different submission forms.

Also, keep in mind that although this form is designed to convey the detailed information needed to process the installation, it may not completely anticipate all of your requirements. Therefore, you should feel free to attach any other information that might be required. It is not intended that the form limit the information or impose undue hardships on the submitter.

1. General Instructions

It is extremely important that care be taken when filling out the form. In particular:

- a. Make sure that your writing is legible and can be duplicated. Also, make sure your spelling is correct -- a misplaced "_" could result in serious problems.
- b. Be sure that *.SysLib.* has at least read access on all segments being submitted and at least status permission on all directories involved. Note that all segments of a particular type (source, object, etc.) should be grouped together in either one archive or one directory.
- c. If you need more space than the amount provided on the form, attach another piece of paper. Do not try to condense the information.

2. Filling out the Cover Sheet

The first page of the form is the cover sheet required for all submissions for either the AML or the applications libraries. Each library submission form consists of one cover sheet and one or more detail sheets.

The following instructions deal with the form section by section. The letters preceding each set of instructions correspond to the labels on the form itself.

- A. Indicate the library associated with this submission. Note that the MRB makes this decision for all "new feature" submissions (although the submitter is free to suggest a library).
- B. Check the appropriate box to indicate the reason for the submission.
- C. Give a reasonably concise description of the user-visible effect of the change being submitted. It is important that the description be as clear and as complete as possible.
- D. Please describe any special requirements for installation and/or backup.
- E. Indicate any documentation required by this installation and attach copies of it to this form. Also, if necessary, attach the text you would like for the message of the day (MOTD).
- F. Describe the testing procedures used; give enough detail so the MRB can judge whether or not these procedures are sufficient.
- G. Fill in your name, project, HVN number, HED address, and the date you are making the submittal.

3. Filling out the Detail Sheet(s)

This page of the form is used to detail the actual system changes to be made. A separate detail sheet is required for each bound segment being modified or moved; unbound segments may be grouped together on a single detail sheet. Note the "Page ___ of ___" in the upper right-hand corner. By convention, the cover sheet is not counted so the first detail sheet is page 1; for example, if your entire submission consisted of the cover sheet and three detail sheets, the first detail sheet would have "Page 1 of 3" in the upper right-hand corner.

The following instructions deal with the detail sheet section by section. Once again, the letters preceding each set of instructions correspond to the labels on the form.

- A. Indicate whether this installation is for one bound segment or for one or more unbound segments. If it is for a bound segment, put the appropriate letter (A=add, R=replace, D=delete) in the box at the right.
- B. Include the full pathname of the source directory or archive. Note that "source" includes only those segments that are translated to object. Segments that are installed "as is" (exec com segments, ASCII control segments, etc.) should be grouped with "object."
- C. Include the full pathname of the object directory or archive. Note that anything that is to be installed "as is" should be grouped with the "object" segments.
- D. Include the full pathname of the directory or archive (if any) containing new or modified include (XXX.incl.YYY) files.

- E. Include the full pathname of the directory or archive (if any) containing new or modified info (XXX.info or XXX.gi.info) files. Note that the default procedure for AML info files is to install them in >doc>installation_info_segments. If this submittal is for an applications library, be sure to note where the info segments should be placed.
- F. List the source segments that comprise the change, placing the appropriate letter (where A, R, and D are as described) in the box to the right of each source segment name. Be sure to include the source type (that is, the appropriate suffix such as pl1 or fortran) with the segment name.
- G. Include the entryname of each segment affected and place the appropriate letter in the appropriate box.
- H. Note any name changes to be made. If this sheet is for unbound segments, be sure to indicate what segment each change applies to.
- I. Include in the comments section anything not covered above that might be necessary in the approval or installation process. Be sure to note any special compilation instructions (e.g., some FORTRAN programs produce errors if compiled with the -optimize control argument).

Computer Network Operations

Request for Submission to
Multics AML or Applications Library

A. AML Applications Library
B. New feature Performance improvement Bug fix
C. Effect of change: _____

D. Special instructions: _____

E. Documentation: (Must explain if check either "Other" or "None")
 Info segment MOTD Other None

F. Testing procedures used: _____

G. Requested/Documented by: _____ Date __/__/__
User_id: _____ HVN: _____ HED: _____

(Rest of this page filled in by CNO)

Audited by: _____ Date __/__/__

Library: AML Applications Library
Applications Library Name(s) Assigned: _____ primary name
_____ addnames

MRB Approval by: _____ Date __/__/__

Installation Approval by: _____ Date __/__/__

Info Seg Created by: _____ Pathname: _____

Entryname(s): _____ Date __/__/__

Installed by: _____ Date __/__/__

(Note: A=add R=replace D=delete)

A. [] unbound segments or [] bound segment

name(s): _____ A/R/D
[]

bindfile: [] unchanged [] new [] modified

B. Source: [] dir or [] archive

pathname: _____

C. Object/bindfile: [] dir or [] archive

pathname: _____

D. Include files: [] dir or [] archive

pathname: _____

E. Info segments: [] dir or [] archive

pathname: _____

F. System Segment Changes:

segment_name.type	A/R/D	segment_name.type	A/R/D
_____	[]	_____	[]
_____	[]	_____	[]
_____	[]	_____	[]
_____	[]	_____	[]
_____	[]	_____	[]

G. Include / Info / Changes:

segment_name	A/R/D	segment_name	A/R/D
_____	[]	_____	[]
_____	[]	_____	[]
_____	[]	_____	[]
_____	[]	_____	[]

H. Name Changes:

A/D	name
[]	_____
[]	_____
[]	_____
[]	_____

I. Comments: _____

SUBMISSION PROCEDURE FOR THE USER-SHARED LIBRARIES

Persons wishing to submit programs for inclusion in a user-shared library must fill out a library submission form, which is entitled "Request for Submission to Multics User-Shared Library." To get this form, contact the CNO manuals librarian or send mail to Admin.SysAdmin.

The user-shared library request form is intended to provide a variety of information to the MRB. In making decisions about the appropriateness of software submitted for the user-shared library, the MRB is primarily interested in such areas as the commitment to support, the cost to CNO (and, hence, to the user community at large) of providing storage, the likely level of usage among various user groups, and the usability of the software as demonstrated by the available documentation. The form therefore contains various sections intended to elicit this type of information. The submitter should feel free to supply any additional information that might help the MRB in its decision-making process.

1. General Instructions

It is extremely important that care be taken when filling out the form. In particular:

- a. Make sure that your writing is legible and can be duplicated.
- b. If you need more space than the amount provided on the form, attach another piece of paper. Do not try to condense the information.

2. Filling out the Form

The following instructions deal with the form section by section. The letters preceding each set of instructions correspond to the labels on the form itself.

- A. Include a brief summary describing the software to be maintained in the library. For example, "IMSL — package of subroutines (vendor supplied) for statistical and mathematical use."
- B. For the anticipated level of support, give some indication of the manpower commitment being made for the library. For example, "3/4 full time for 6 months, 1/4 full time thereafter." The responsible individual is the manager who has committed to the level of support described above. The installer/maintainer is the individual who is responsible for the day-to-day maintenance of the library.
- C. The sponsor list consists of managers (in other departments or divisions) whose personnel want to make use of the library.
- D. List all the languages used in generating the software.
- E. Indicate what type of documentation will be available. Also, attach a copy of currently available documentation or an outline of plans for generating documentation for this library.

- F. Suggest a name for the directory that will "hold" the library. Also, indicate the total amount of disk space that will be required (for all the subdirectories -- source, object, executable, info, etc.).
- G. Identify the person submitting this request, the HVN, and the date of the submittal.

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Request for Submission to
Multics User-Shared Library

A. Description of Library Contents: _____

B. Support Commitment
Anticipated Level of Support: _____

Responsible Individual: _____ Division: _____

HVN: _____ HED: _____

Installer/Maintainer: _____ HVN: _____

Person_id: _____ Project_id: _____

C. Departmental/Divisional Sponsors	Name	Division	HVN	HED
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____

D. Source Languages Used: _____

E. Documentation: [___] Info segment(s) [___] Hardcopy

F. Suggested Library Name(s): _____ Quota Requested: _____

G. Submitted by: _____ HVN: _____ Date ___/___/___

(Rest of this page filled in by CNO)

MRB Approval by: _____ Quota: _____ Date ___/___/___

Installation Approval by: _____ Date ___/___/___

Info Seg Created by: _____ Pathname: _____

Entryname(s): _____ Date ___/___/___

Library Created/Installed by: _____ Date ___/___/___

primary name: _____ addnames: _____ mailbox: _____

Computer Network Operations

Request for Submission to
Multics AML or Applications Library

- A. AML Applications Library
- B. New feature Performance improvement Bug fix

C. Effect of change: Add two commands for reading and writing HCN tapes

D. Special instructions: Do not install until the new 7-track tape drive is ready

E. Documentation: (Must explain if checked either "Other" or "None")
 Info segment MOD Other None
Add message to MOD when this is ready to be used.

F. Testing procedures used: Tested read and write by using Phoenix Multics system (has a 7-track tape drive) and by sending HCN to Multics → HCN and comparing results with original

G. Requested/Declassified by: John Q. Public Date 12/29/80
 User id: JQPUBLIC@M-TAN H: 541-1234 HED: MN12-8001

(Rest of this page filled in by CNO)

Audited by: _____ Date / /

Library: Applications Library

Application Library Name(s) Assigned: _____ primary name

_____ addnames

MRB Approval by: _____ Date / /

Installation Approval by: _____ Date / /

Info Seg Created by: _____ Pathname: _____

Entryname(s): _____ Date / /

Installed by: _____ Date / /

(Note: A=add R=replace D=delete)

A. [] unbound segments or [] bound segment

name(s): bound-hcn-tape- A/R/D
[]

bindfile: [] unchanged [] new [] modified

B. Source: [] dir or [] archive

pathname: >udd>HCN-Tran>JQPublic>bound-hcn-tape-.archive

C. Object/bindfile: [] dir or [] archive

pathname: >udd>HCN-Tran>JQPublic>bound-hcn-tape-.archive

D. Include files: [] dir or [] archive

pathname: >udd>HCN-Tran>JQPublic>include

E. Info segments: [] dir or [] archive

pathname: >udd>HCN-Tran>JQPublic

F. System Segment Changes:

segment_name.type	A/R/D	segment_name.type	A/R/D
<u>hcn-tape.pl1</u>	[A]		[]
<u>hcn-write.fortran</u>	[A]		[]
<u>hcn-read.fortran</u>	[A]		[]
<u>bound-hcn-tape-.bind</u>	[A]		[]
	[]		[]

G. Include Info / Changes:

segment_name	A/R/D	segment_name	A/R/D
<u>hcn-tape-header.incl.pl1</u>	[A]		[]
<u>hcn-tape.info</u>	[A]		[]
	[]		[]
	[]		[]

H. Name Changes:

A/D	name
[A]	<u>hcn-tape, hcn-read, hcn-write to bound-hcn-tape-</u>
[A]	<u>hcn-read.info, hcn-write.info to hcn-tape.info</u>
[]	
[]	

I. Comments:

Computer Network Operations

Request for Submission to
Multics AML or Applications Library

- A. AML Applications Library
- B. New feature Performance improvement Bug fix

C. Effect of change: Fix bug in Host Resident System Level assembler. Bug had resulted in errors in the listing produced for an assembly.

D. Special instructions: None

E. Documentation: (Must explain & check either "Other" or "None")
 Info segment MOTD Other None
Updated hrs-status.info for note and fix

F. Testing procedures used: Used corrected software in my process and verified that test cases which used to fail now work properly. Also ran regression test on all previous test case programs to verify that they still work.

G. Requested/Documented by: Frank L. Six Date 11/12/80

User_id: ASix.HRS HWN: 541-9876 HED: 4N12-1234

(Rest of this page filled in by CNO)

Audited by: _____ Date 1/1/

Library: AML Applications Library

Applications Library Name(s) Assigned: _____ primary name

_____ addnames

MRB Approval by: _____ Date 1/1/

Installation Approval by: _____ Date 1/1/

Info Seg Created by: _____ Pathname: _____

Entryname(s): _____ Date 1/1/

Installed by: _____ Date 1/1/

(Note: A=add R=replace D=delete)

A. unbound segments or bound segment

name(s): bound_lb_asm

A/R/D
[R]

bindfile: unchanged new modified

B. Source: dir or archive

pathname: >udd>HRS>ASix>bound_lb_asm.s.archive

C. Object/bindfile: dir or archive

pathname: >udd>HRS>ASix>bound_lb_asm.ud.archive

D. Include files: dir or archive

pathname: NONE

E. Info segments: dir or archive

pathname: >udd>HRS>ASix

F. System Segment Changes:

segment_name.type	A/R/D	segment_name.type	A/R/D
<u>lb_code_gen.fortran</u>	<u>[R]</u>		<u>[]</u>
<u>lb_lister.fortran</u>	<u>[R]</u>		<u>[]</u>
<u>lb_list_long.pl</u>	<u>A</u>		<u>[]</u>
<u>[]</u>	<u>[]</u>		<u>[]</u>
<u>[]</u>	<u>[]</u>		<u>[]</u>

G. Include / Info / Changes:

segment_name	A/R/D	segment_name	A/R/D
<u>hrs_status.info</u>	<u>[R]</u>		<u>[]</u>
<u>[]</u>	<u>[]</u>		<u>[]</u>
<u>[]</u>	<u>[]</u>		<u>[]</u>
<u>[]</u>	<u>[]</u>		<u>[]</u>

H. Name Changes:

A/D	name
<u>[]</u>	
<u>[]</u>	
<u>[]</u>	
<u>[]</u>	

I. Comments:

Computer Network Operations

Request for Submission to
Multics User-Shared Library

A. Description of Library Contents: Software tools which translate arbitrary English marketing commitments into finished programs, documentation and hardware specs. This software may result in some changes to the programming process.

B. Support Commitment
Anticipated Level of Support: software supports itself but one person will provide additional full time support indefinitely.

Responsible Individual: Blue Sky Smith Division: Corporate

HVN: 541-0123 HED: MN12-9999

Installer/Maintainer: Will Do Anything HVN: 541-8876

Person_id: WDAAnything Proj_id: Opportune

C. Departmental/Divisional Sponsor

Name	Division	HVN	HED
1. <u>Ralph Johnson</u>	<u>Residential</u>	<u>544-1212</u>	<u>MN42-1212</u>
2. <u>John G. Moore</u>	<u>Electronics</u>	<u>463-7654</u>	<u>FL31-7890</u>
3. <u>Art Ferr</u>	<u>DELD</u>	<u>345-6789</u>	<u>CA16-1718</u>
4. _____	_____	_____	_____

D. Source Languages Used: PL/I

E. Documentation: [] Info segment(s) [] Hardcopy

F. Suggested Library Name(s): no_prog Quota Requested: 4500

G. Submitted by: Will Do Anything HVN: 541-8876 Date 9/19/80

(Rest of this page filled in by CNO)

MRB Approval by: _____ Quota: _____ Date / /

Installation Approval by: _____ Date / /

Info Seg Created by: _____ Pathname: _____

Entryname(s): _____ Date / /

Library Created/Installed by: _____ Date / /

primary name: _____ addnames: _____ mailbox: _____