

---

# 5 Preparing VMS Files for Transfer

This section contains information for users of VMS on how to prepare files for transfer to a BBS or other information system such as AOL, CompuServe, etc.

Within this section, references to "VMS" pertain to OpenVMS-VAX and VAX/VMS only. However, most of this will also be true for OpenVMS-Alpha, previously known as OpenVMS-AXP.

---

## 5.1 File Transfer Preparation Overview

Preparing VMS files for transfer to an information system such as a BBS, CompuServe, etc. usually means packing them into a text library (.TLB) file. This works for executables, libraries (.TLB, .OLB, .MLB, .HLB, etc.) and most sequential/variable files such as text files, source files, DCL procedures (.COMs), etc.

The ONE caveat has to do with .OBJ files. To keep them from getting scrambled during the transfer process, the only safe way to handle them is to pack them into object library (.OLB) files, then process the library files. This is ESPECIALLY important for OpenVMS-Alpha object files which can have some VERY long record lengths.

If you need to pack up a group of files such that the original directory structure can be restored when the file group is downloaded, the best choice is to use BACKUP to create a saveset, then pack up the saveset in a text library. Note that when doing so, you must use /BLOCK=2048 on your BACKUP command. The VMS Librarian can only handle record lengths of 2048 or less.

---

## 5.2 File Transfer Preparation - MAKE\_TLB.COM

A DCL procedure is available on The SYSS\$COMMAND BBS and other sources which will pack up all the files in a directory into a text library, then compress the text library. The end product is a text library (.TLB) file which contains the original files in a restorable form along with a procedure to extract them from the library. The library is converted to DCX data reduced format to improve file transfer times.

The DCL procedure is called MAKE\_TLB.COM. Once you have obtained it, you can pack up all the files in your current default device/directory with a single command, like so:

```
$ @ddcu:[dir]MAKE_TLB filespec
```

...where "filespec" is the name you wish to give the library. Note that since the systems to which you may upload the library can only handle short file specifications, you should limit the library name to six characters or less. CompuServe is the primary consideration here. AOL and most BBSes can handle an eight character filename. You should always use the .TLB text library file type extension in all cases.

MAKE\_TLB.COM will first write the extraction procedure EXTRACT\_TLB.COM which then gets included in the library. MAKE\_TLB then packs the files one by one into a text

library. The resulting library is compressed into DCX data reduced format to optimize file transfer times and disk space usage.

Note that RMS indexed and relative files cannot be processed in this manner. For indexed files, see sections 5.3 and 5.4 of this manual. Other RMS files where the record length exceeds 2048 bytes must also be pre-packed as described in 5.3 and 5.4.

VMS text library (.TLB) files can be uploaded and downloaded without the need for doing any other processing. Treat .TLB files as binary (512 byte, fixed record length).

---

## 5.3 File Transfer Preparation - VMS ZIP

A VMS program is available on The SYS\$COMMAND BBS and other sources which will pack up all the files in a directory into a compressed archive. The end product is an archive (.ZIP) file which contains the original files in a restorable form along with their original RMS attributes.

VMS ZIP is described in detail in section 3.6.6 of this manual. See also section 3.6.4 and section 5.4.2, following. See Chapter 3 of this manual for information on how to obtain C-Kermit for VMS as well as the VMS ZIP and UNZIP programs.

VMS ZIP archives can be uploaded and downloaded without the need for doing any text library processing. Treat .ZIP files as binary (512 byte, fixed record length).

---

## 5.4 File Transfer Preparation - Pre-Packing

In some cases, it is desirable that a group of files be restored in their original directory or tree structure, and with their original attributes and file dates.

The following sections described two approaches to this situation. Both are equally effective.

---

### 5.4.1 File Transfer Preparation - Pre-Packing Using VMS BACKUP

In some cases, it is desirable that a group of files be restored in their original directory or tree structure, and with their original attributes and file dates. In such cases, VMS BACKUP can be used to create a saveset which can then be packed into a text library using MAKE\_TLB.

When using VMS BACKUP to pre-pack files, be sure to use the following qualifiers and values on your command line:

```
$ BACKUP/BLOCK=2048/GROUP=1 ddcu:[path]filespec saveset_spec/SAVE
```

The VMS Librarian cannot handle savesets where the physical record (/BLOCK) size is greater than 2048. Redundancy groups can be restricted to reduce the size of the saveset.

---

## 5.4.2 File Transfer Preparation - Pre-Packing Using VMS ZIP

In some cases, it is desirable that a group of files be restored in their original directory or tree structure, and with their original attributes and file dates. In such cases, VMS ZIP can be used to create an archive which can then be packed into a text library using MAKE\_TLB.

When using VMS ZIP to pre-pack files, be sure to use the following options your command line:

```
$ ZIP "-9Vw" archive_name filespec
```

Note that because the options contain upper-case characters, the options must be enclosed in quotes.

VMS ZIP creates archives which have RMS attributes similar to library files and executables: 512 byte fixed-length records. These archives can be uploaded without further processing, or they can be included among text files, executables or other files in a text library.

---

## 5.5 File Transfer Preparation - Object Files and Other Binaries

Because .OBJ files contain both printable and non-printable data, yet have variable length records, there are some limitations on how they can be transferred from/to a VMS System.

The safest way to handle them is usually to pre-pack them into object libraries, then handle the object library files as you would another library file or an executable.

Other methods include using VMS BACKUP, as described in section 5.4.1 or using VMS ZIP as described in section 5.4.2.

Other "binary" file types can also be handled in this manner, if preserving their original attributes is of the utmost importance. This might include graphics files, spreadsheet files, document files, indexed files, etc.