IMS
to

uniBasic

Converter

**Dynamic Concepts' suite of conversion utilities for those migrating from
IMS to *uniBasic*™**

The IMS Converter requires *uniBasic* version **5.2.4** or higher. Contact Dynamic Concepts if a *uniBasic* upgrade is required.

The IMS Converter is designed to be installed using the IMS Converter Installation instructions outlined below. Any attempt to install the IMS Converter using another method may cause an installation failure and/or damage to the IMS Converter programs.

WARNING: Before performing a conversion of any IMS data or program files, perform a full backup of these files. The IMS Converter will make changes directly to these files. The IMS Converter will change the IMS files **IN PLACE**; the existing IMS programs and data files will be permanently changed.

IMS Converter Installation

To install the IMS converter, sign on to your main *uniBasic* account. At the system prompt ($), enter '**unibasic**' and issue the following commands at the iris scope prompt (#).

>   **NOTE**: If the prompt is not '#', you are not in the correct mode. Once you have logged on as *uniBasic*, enter the appropriate commands to get to the '#' prompt.

1. **#cpio -iavcdu </dev/**{device name, see NOTE below}

>   **NOTE**: In SCO UNIX/XENIX, device names are as follows:

Device	Device Name
5.25" Floppy, 96tpi	/dev/fd096
3.5" Floppy, 135tpi	/dev/fd1135ds18
60 Mb QIC tape	/dev/rct0

>   The device names shown here are typical for an SCO UNIX/XENIX system. The device names on your system may be different. For example, the device names used on the IBM RS/6000 AIX are:

Device	Device Name
5.25" Floppy, 96tpi	*not used*
3.5" Floppy, 135tpi	/dev/fd0h
60 Mb QIC tape	/dev/rmt0

>   NOTE: At this point, the IMS Converter will create the subdirectory '/ims2ub' below your current directory. All IMS Converter files except 'imsinstall' will be located in this directory. The file 'imsinstall' will be located in your current directory.

2. **#exec imsinstall**

3. The command 'IMS' will appear on the command line. Press [RETURN] to enter the IMS Converter master menu.

IMS to *uniBasic* Conversion

The IMS Conversion Menu, as shown below, should now be on the screen.

```
                    M a s t e r   M e n u
           "IMS/BASIC" to "uniBasic" Conversion Package 1.5
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Prog#         Prog. Name    Program Description
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 00                         Exit IMS/BASIC Conversion Package
 01           IMSXFER       Convert Formatted/Contiguous/Indexed Files
 02           IMSSAVE       Save Text Files as BASIC Programs
 03           IMSLPT        Convert Printers
 04           IMSTERM       Create Unibasic Term Files



Desired selection ? __
```

Enter the desired program number (Prog#) to invoke the correct conversion utility. Each individual conversion program has it's own help screen(s). Once you have entered a program, type '?' to call the help screens.

Program #00 - Exit

Enter '00' to exit the IMS Converter and return to the *uniBasic* iris scope prompt (#).

Program #01 - IMSXFER

IMSXFER: Convert Formatted, Contiguous, and Indexed Files

WARNING: IMSXFER WILL CONVERT, NOT COPY, ALL IMS DATA FILES. IT
    IS STRONGLY SUGGESTED THAT A BACKUP BE DONE BEFORE ANY
    CONVERSION.

    NOTE: IMS filenames ending with the '@' symbol will be modified by the IMS
    Converter. The Converter will strip off the '@' symbol so that the resulting filename can
    be recognized by *uniBasic.*

IMSXFER is used to scan a directory, converting all (or selected) IMS/BASIC files to uniBasic format. Any file which is not an IMS formatted, contiguous, or indexed file is silently ignored. There are two different ways to run IMSXFER:

1. Enter all switches and options on one line at the main prompt.
2. Press [RETURN] to convert all IMS files in the current directory.

When using the former, you must specify the directory containing the files to be converted (e.g. "/usr/ub/3"). Other switches and options as shown below can also be included.

Note that any filenames containing upper-case characters are converted to all lower-case characters.

Theory of Operation:

FORMATTED files are converted to equivalent uniBasic formatted files using the format map in the file's header.

CONTIGUOUS files are converted by simply overwriting the IMS file header with an equivalent uniBasic file header.

INDEXED files are converted by copying all data records, copying all keys, and then deleting those data records not in-use. For non-bit-mapped files, there will be additional unused records under uniBasic; namely, all records which were occupied by index blocks under IMS.

The resulting converted files have a <J> attribute if they contain IMS BCD numbers, or a <Q> attribute if they contain IRIS BCD numbers.

The /U option can be used to convert only in-use records in indexed files, reassigning data record numbers and thereby compressing the file. This option can be used only when the indexed files are known to follow the traditional layout; i.e. all keys point to data records in the same file, all in-use records are pointed to by at least one key, and no significant data exists in deleted records.

Exception: The /U option has no effect on index-only or record-only files. For such files, the current record numbers of the keys or records are preserved regardless of /U.

NOTE: If converting IMS revision3 indexed files, IMSXFER must GUESS at the block size (BUFSIZ) and long-alignment (LONGALIGN) of the native CPU based on the contents of each file. If these values are known, it is best to patch them into IMSXFER (see program comments). Valid values for BUFSIZ are 512, 1024, 2048, or 4096. LONGALIGN should be 1 if 'long's are aligned on 4-byte boundaries, or 0 for no alignment.

Command examples:

    /usr/ub/1: (AP.*)
    /usr/ub/files: /C /L=errorlog

General format:

IMSXFER dir: <switches>

dir: Convert files in directory "dir"
/C   Confirm each file before transfer
/H or ?   These instructions
/L   Output to printer "$LPT"
/L=$file Output to device "$file"
/L=file   Create and output to "file"
/U   Convert in-use records only (indexed files)

(abc*)   Transfer files beginning with "abc"
(*xyz)   Transfer files ending with "xyz"
(ab*z)   Transfer files beginning with "ab" and ending with "z"
(*ijk*)   Transfer files containing "ijk"
            Up to 10 different filename selections are permitted

Program #02 - IMSSAVE

IMSSAVE: Multi-File LOAD and SAVE of Text Files

IMSSAVE creates a command file as "IMSSORT"+<port#>, containing a series of commands "BASIC NEW LOAD EXIT SAVE" for each file. There are two different ways to run IMSSAVE:

1. Enter all switches and options on one line at the main prompt.
2. Press [RETURN] for individual prompts on the commonly-used options.

When using the former, you must specify the source directory containing the text files (e.g. "/usr/ims/src") and the destination directory to contain the saved BASIC programs (e.g. "/usr/ub/3"). Other switches and options as shown below can also be included.

If using individual prompts, you will be asked separately to enter the source and destination directories, as well as some other commonly-used switches.

The source directory will be scanned for all text files containing BASIC programs and the command file generated. At the end of the scan, the command file is automatically executed.

Command examples:

   /usr/ims/src:-/usr/ub/1: (AP.*)
   /usr/ims/src:-/usr/ub/progs: /R /L=errorlog

General format:

IMSSAVE src:-dest: <switches>

src:-dest: Transfer files from directory "src" to directory "dest"
/C   Confirm each file before transfer
/H or ?   These instructions
/L   Output to printer "$LPT"
/L=$file   Output to device "$file"
/L=file   Create and output to "file"
/R   Replace destination file if it already exists
(abc*)   Transfer files beginning with "abc"
(*xyz)   Transfer files ending with "xyz"
(ab*z)   Transfer files beginning with "ab" and ending with "z"
(*ijk*)   Transfer files containing "ijk"
             Up to 10 different filename selections are permitted

Program #03 - IMSPRINTER

IMSPRINTERS: Convert IMS Printers

This program converts IMS printer drivers found in the /dev directory into UniBasic printer scripts. These scripts will then be moved to the 'sys' directory in your LUST. UniBasic allows both direct printing and spooling through UNIX.

Note: The printer scripts created are modified versions of the lpt.iris
script included in uniBasic.For use with the UNIX spooler, you
must manually modify the UniBasic printer scripts.

Program #04 - IMSTERM

IMSTERM: Creates Unibasic Terminfo files

IMSTERM creates uniBasic terminfo files from the Unix terminfo database. You will be prompted for the name of the term files to create for uniBasic and this program will create them in the first /sys directory in your LUST table.

Note: For custom terminal definitions you must modify the *term.crtt*
files located in your sys directory using a standard Unix editor
such as **vi.**