```
*****************************************************************************
*                                                                           *
*                    P C   E M U L I N K   Release 4.2                      *
*                                                                           *
*            Copyright 1986 to 1995 The Software Link, Incorporated         *
*                      All Rights Reserved Worldwide                        *
*                                                                           *
*****************************************************************************
```

This file contains important information on the latest release of PC EmuLink, including information on new features, additional information which is not included in the documentation, and latest program updates.

NEW HERCULES MONOCHROME GRAPHICS DRIVER:

* * * * * * * * * * * * * * * * * *

EmuLink now provides support for Hercules Monochrome Graphics on the EmuLink computer!

* * * * * * * * * * * * * * * * * *

For Hercules workstations, the new driver HGTERM.SYS (v5.04) replaces the standard ELTERM.SYS driver. Add the DEVICE=HGTERM.SYS statement to your CONFIG.SYS file, and use the HGTERM.SYS driver in your ADDTASK command (instead of ELTERM.SYS) to add a task for a Hercules EmuLink workstation.

The EmuLink task will be added with a default VMODE of MONO. If you want to use graphics, you MUST use the MOS VMODE command to change the task to a VMODE of HG1 or HG2.

NOTE: To support Hercules graphics, you MUST use the same IB and OB buffer sizes with EMULINK.SYS (and $SERIAL.SYS) that are required for CGA support with the ELTERM driver!

Host Computer: OB=16384
EmuLink Computer: IB=16384

The following hardware requirements apply:

1. The host computer MUST be a 386-based or 486-based computer. (286-based, and lesser, computers cannot support the required direct video port addressing.)

2. The host computer MUST have a Hercules Mono Graphics adapter OR a VGA card (not both) in order for Hercules to work on the EmuLink computer. No other video adapters are supported on the host at this time.

3. The EmuLink computer can have a Hercules Mono Graphics adapter OR a VGA card set to Hercules full-page mode. (Note that, if a VGA card is used, it MUST be able to be configured to run in Hercules full-page mode! Also note that a standard Mono text-only adapter will not provide graphics.)

PAM switching: If the host computer has a Hercules adapter, you will be able to switch into the EmuLink task with the appropriate ALT - number key sequence from the host. If the host computer has a VGA card, you will NOT be able to switch into the EmuLink task. These are the same restrictions that apply to other Hercules workstations solutions.

NEW DRIVERS:

* * * * * * * IMPORTANT * * * * * * * * *

If you are using EmuLink 4.2 with PC-MOS you MUST use the $SERIAL.SYS (v5.13) and ELTERM.SYS (v5.04) drivers included on the EmuLink diskette in place of your current drivers. (The versions of these drivers that you received with earlier releases of PC-MOS have since been updated.)

EmuLink now checks for the correct version of the $SERIAL.SYS driver.

* * * * * * * * * * * * * * * * * * *

EMULINK 4.2 RUNS UNDER WINDOWS:

EmuLink 4.2 can be run in a DOS box under Microsoft Windows 3.X providing terminal emulation to access a PC-MOS host computer. This also provides for file transfer between Windows and PC-MOS systems. Up to 24 EmuLink sessions can be supported under Windows with EMULINK.SYS. You can use the Windows Cut and Paste feature to copy data to and from the EmuLink session and any Windows or DOS application on the system.

A Windows ICON file (EMULINK.ICO) and PIF file (EMULINK.PIF) are provided to facilitate setting up EmuLink on a Windows system.

To run EmuLink in a DOS box under Windows follow these installation steps:

1. Use the Windows Program Manager to make a new Program Group called, for example, EMULINK.

2. In that Group create a new program item with the "description" EMULINK. Enter the provided PIF file EMULINK.PIF as the "command line" for the program item.

3. Use the "Change Icon" button to change the default icon to the provided icon file EMULINK.ICO for the program item.

4. Create the batch file TERM.BAT referenced in and called by EMULINK.PIF.

   The batch file called by EMULINK.PIF is called TERM.BAT and must contain your EmuLink command.

5. If you will only use COM1 and/or COM2 for your EmuLink connection, you don't need to use the EMULINK.SYS driver to set up the ports.

   If you will use other COM ports, you must enter the EMULINK.SYS device driver in your CONFIG.SYS file. For example:

   ```
   DEVICE=C:\EMULINK\EMULINK.SYS /AD=03E8,IB=16384,HS=P,IN=5
   ```

   This statement sets up COM3 as the EmuLink connection. Your statement should contain the proper parameters for the port(s) you will use.

IMPROVED AUTO-DIALING HANDLING:

When auto-dialing from the EmuLink command line and carrier is already high (i.e. the phone connection is already established) the following menu will appear:

```
èëëëë     Connection Already Established     ëëëë£
¤                                                ¤
¤   F7  - Continue with established connection   ¤
¤   F8  - Hang-up & go to Dialing Directory      ¤
¤   F9  - Hang-up & dial number on command line  ¤
¤   F10 - Exit Emulink                           ¤
¤                                                ¤
àëëëëëëëëëëëëëëëëëëëëëëëëëëëëëëëëëëëëëëëëëëë¥
```

When auto-dialing from the EmuLink command line and three dial attempts are made with no connect, or the user presses ESC, the following menu will appear:

```
èëëëëëë       Autodial Discontinued        ëëëëëë£
¤                                                ¤
¤   F8  - Hang-up & dial number on command line  ¤
¤   F9  - Hang-up & go to Dialing Directory      ¤
¤   F10 - Exit Emulink                           ¤
¤                                                ¤
àëëëëëëëëëëëëëëëëëëëëëëëëëëëëëëëëëëëëëëëëëëë¥
```

IMPROVED VERSIONS OF FETCH & SEND:

An approximate 1/3 improvement in file transfer rates has been achieved by increasing the file transfer packet size from 512 bytes to 1024 bytes.

If you are upgrading to a new version of EmuLink make sure you don't mix old FETCH and SEND programs with new ones. Only use the new versions of FETCH & SEND (v2.2) on this diskette with EmuLink v4.2!

EmuLink now checks for the correct version of FETCH and SEND. FETCH and SEND check for the correct version of $SERIAL.SYS.

(The old versions of FETCH & SEND (v2.0, v1.1, and v1.0) that came with EmuLink 4.0, 3.1, and 3.0 respectively, must only be used with those versions of EmuLink.)

NOTE: V2.0 or above of FETCH and SEND is required for the new HGTERM.SYS driver.

FETCH COMMAND SYNTAX CORRECTION:

The example FETCH command at the bottom of page 2-18 of the EmuLink manual should read:

```
FETCH C:\PCMOS\*.* C:\MOS\*.*
```

(The *.* at the end of the command is required, but not shown in the manual.)

ENHANCED KEYBOARD SUPPORT:

EmuLink now supports 101-key AT-style keyboards. This includes support for Num Lock, Caps Lock, and Scroll Lock. Previous releases of EmuLink only supported 84-key PC-style keyboards.

UTILITY PROGRAMS:

Two utility programs are included on the EmuLink diskette. They are:

MLIRQ.COM - Run this program to see what hardware interrupt request lines (IRQs) are in use or available on your system.

SERINFO.COM - Run this program to see what serial communication ports are in use on your system and what optional parameters are set for each port.

PATCHES:

There are some patches that may need to be applied to the EmuLink program (for those without touch-tone phones), and for those using the LANLink 5X server software. The purpose of these patches and how to apply them are explained below:

E40_P1.PAT: Patch for EmuLink

This patch changes the dialing prefix in EmuLink from ATDT to ATDP for areas of the world that don't have touch-tone dial capability.

Log on to the subdirectory that contains the EmuLink system files and enter the following commands one at a time:

```
DEBUG EMULINK.COM < E40_P1.PAT
PATCHID EMULINK.COM
```

(Please do not apply the patch to your original EmuLink system diskette.)

L5X_P2.PAT: Patch for LANLink 5X v2.11 only!

This patch corrects a problem with EmuLink v3.0 and above and LANLink 5X v2.11 termination logic. LANSERVE.COM would not terminate properly.

Log on to the subdirectory that contains the LANLink system files and enter the following command:

```
DEBUG LANSERVE.COM < L5X_P2.PAT
```

(Please do not apply the patch to your original LANLink system diskette.)

IMPROVED REMOTE CAPABILITIES WITH EMULINK

EmuLink makes dialing out from a remote workstation easier than ever before. MODEM.CFG is a modem configuration file that has been added to EmuLink which helps simplify the remote dialing process. The MODEM.CFG file contains modem configuration strings for each of the modems that are listed in it.

In order to set up a remote EmuLink workstation, look up your modem model number in the MODEM.CFG file. You can do this from the DOS prompt by issuing the command (from the EmuLink directory):

```
C:\EMULINK>TYPE MODEM.CFG |MORE
```

This will allow you to view the different types of modems that have modem initialization strings written for them. To use the MODEM.CFG configuration file, use the following example (which assumes that we are using a Hayes Optima 28.8 modem):

```
EMULINK /1,19200,,,[HAYESOPTIMA288]ATDT1,4045120643,,,,D,E
```

If you choose to use a custom initialization string, then try the example below:

```
EMULINK /1,19200,,,[\AT&C1&D2&K3X4]ATDT1,4045120643,,,,D,E
```

If a specified modem type is not listed in MODEM.CFG, Default or General should be used as modem names. Default provides no modem initialization string while General provides an initialization string that supports many of the more popular modem brands.

EmuLink version 4.2 provides improved support for RTS/CTS handshaking. Whether or not RTS/CTS handshaking is specified, EmuLink now raises the RTS line. If RTS/CTS handshaking is desired, the EMULINK.SYS serial driver for DOS and the $SERIAL.SYS driver for PC-MOS must have the HS=P parameter changed to HS=R.