Walkthrough to Install and Operate the Hydrologic Evaluation of Landfill Performance (HELP) Model v3.07

HELP v3.07 is a DOS executable program, meaning it does not run in a Windows or iOS environment. The 16-bit program will not natively work with 64-bit systems (i.e., most Windows 7 and more recent systems). Therefore, a 3rd party emulator is required. This walkthrough will describe how to use a DOS emulator to install the HELP model. HELP v3.07 will run natively on 32-bit systems, through the Windows Command line. For 32-bit systems, unzip the program and double-click INSTALL.exe, following the walkthrough from Step 7. To check if your PC is 32 or 64-bit, navigate to the Start menu (may be a Windows icon), Click Computer, Click System Properties (or similar). A window with your Windows Edition and System Information will appear. System type will display either 32 or 64-bit Operating System.

If you have difficulties with installation of HELP, contact Thabet Tolaymat for troubleshooting: tolaymat.thabet@epa.gov

Updates will be posted to:

https://www.epa.gov/land-research/hydrologic-evaluation-landfill-performance-help-model

Instructions for software installation begin on the following page.

Instructions to load HELP after a successful installation begin on page 10.

Step	Image		Comments
1	No image		Download a copy of HELP v3.07 from
			EPA's HELP model webpage. It is an
			executable (.exe) in the form of a zip
			folder (.zip).
2	No image		To operate HELP on a 64-bit system, you must first download and install a DOS emulator. Search "DOS emulator" in your preferred search engine and download the software of your choosing. EPA cannot recommend specific software. This walkthrough uses the DOS emulator
			DOSBox v0./4.
3	Computer → Local Disk (C:) → Users → Max	Downloads	Navigate to your Downloads folder or
		New folder	wherever the zipped HELP folder is
	ries	Date modif	located.
	cuments	072872016 Open	
	ISIC LF Methane Emissions Paper	Open in new window	The file is called: zHELP3P.zip
	leos	Extract All	
	egroup	<i>Γ-∠ι</i> ρ →	
	13.04P	Move to Dropbox	
	puter	Open with	
	Campbellsci =	Restore previous versions	
	0B Mount	Send to	
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	ogs	Сору	
	Vew Folder VerfLoas	Create shortcut	
	Irogram Files	Delete	
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	movable Disk i + +	h lopeides	

Installing the HELP software





Comments

We will now go through the prompts to install HELP.

There are many files which are required for proper operation. Pay careful attention to the prompts. Generally, you will want to Type "y" for yes. Starting with the first prompt: Do you want to continue installation?



For convenience, use the suggested directory.

NOTE: This does not install files or programs to C:\HELP3. It will install to wherever in the C: drive you have the INSTALL file.

In our case it is: C:\HELP\HELP3

In your case it may be embedded within several folders. e.g., C:\...\HELP3

Another NOTE: It is important to keep track of where these files and folders are located. To run the software later, you will need to type the file path into the user interface. It will not let you browse for the folder (like most modern programs do).

Press Enter

Install to di

DOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: INSTALL

8



Step	Image	Comments	
13	🔛 DOS8ox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: PKUNZIP	Several files will then be inflated/	
	PKUNZIP (R) FAST! Extract Utility Version 2.04g 02-01-93 Copr. 1999-1993 PKWARE Inc. All Rights Reserved. Shareware Version	unzipped.	
	■ 80486 CPU detected.		
	■ EMS version 4.00 detected. ■ XMS version 3.00 detected.	Press any key	
	Searching ZIP: C:/USER.ZIP Inflating: C:/HELP3/LIST.COM		
	Inflating: C:/HELP3/CLINHELP.HLP Inflating: C:/HELP3/CLINHELP.HLP Inflating: C:/HELP3/USE2TAGS.HLP		
	Inflating: C:/HELP3/CLIMTAGS.HLP Inflating: C:/HELP3/MLINTAGS.HLP Inflating: C:/HELP3/SULTAGS.HLP		
	Inflating: C:/HELP3/USE1TAGS.HLP Inflating: C:/HELP3/USE2HELP.HLP Inflating: C:/HELP3/SUBE2HELP.HLP		
	Inflating: C:/HELP3/USEIHELP.HLP _		
14	🔀 DOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: INSTALL	Although this information is optional,	
	Hydrologic Evaluation of Landfill Performance	we feel it is best to install default data.	
	Do you want to install default historical precipitation data?	Type y	
	(optional) Enter Y for uss or N for no.		
	Vicksburg, Mississippi 39180-6199		
	for USEPA Risk Reduction Engineering Laboratory Cincimati, Ohio 45258		
15	DOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: INSTALL	Generations ago people did hard math	
10	Hydrologic Evaluation of Landfill Performance	by hand with pen and paper.	
		Today, we can install vast quantities	
	Do you want to install default historical precipitation data?	of data on hard drives.	
	Do you want to install it on the hard disk? Enter Y for yes or N for no.	Type y	
	for		
	USEPA Risk Reduction Engineering Laboratory Cincinnati, Ohio 45268		
16	🔀 DOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: INSTALL	Decades ago, computers used multiple	
	Hydrologic Evaluation of Landfill Performance	disks to perform computing tasks.	
		Programs were measured in kilobytes.	
	Please insert disk 2.	When was the last time you saw a	
	Press the [Enter] key to continue	TIOPPY disk?	
	Environmental Laboratory USAR Vatersays Experiment Station	All of the required files are contained	
	for for	within the zin file	
	USEPH RISK Reduction Engineering Laboratory Cincinnati, Ohio 45268	widini die Zip nie.	
		Press Enter	





Step	Image	Comments
25	BOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: H3LOGO	The image to the left should be displayed. Press any key to continue operation of the HELP model.
	Developed by Environmental Laboratory USAE Waterways Experiment Station Vicksburg, Mississippi 39100-6199 for USEPA Risk Reduction Engineering Laboratory Cincinnati, Ohio 45260 Press any key to continue	If you close the emulator, your session will end and HELP will close. Follow the instructions on the following page to load HELP.

Once HELP is installed you will use a DOS emulator to start the program using the command line. We will mount the C: drive (or whichever drive your folder is located in). Then we will navigate to and run the program.

• 4 Sean

Type

File folde 11/10/2016 1:13 PM File folder

6/14/2017 11:13 AM

12/29/2016 12:02 ...

11/10/2016 1:12 PM

Date modified

3/6/2017 1:37 PM

6/15/2017 11:08 AM File folde

12/29/2016 11:58 ... File folder 3/13/2017 10:03 AM File folder

3/13/2017 2:49 PM File folder

Step	Image				
1	C:\Desktop\HELP\HELP307			▼ → Search	h HELP
	File Edit View Tools Help				
	Organize • Include in library •	Share with 👻 New folder			
	🚖 Favorites	Name	Date modified	Туре	
	E Desktop	HELP3	6/15/2017 11:08 AM	File folder	
	Downloads	EXAMPLES.ZIP	11/1/1997 2:08 AM	WinZip File	
	Secent Places	H3DOCPDF.ZIP	12/12/1997 2:48 PM	WinZip File	
	🐔 OneDrive - Environmental Prote	E HBUSEPDF.ZIP	12/12/1997 2:47 PM	WinZip File	
	3 References	INSTALL.BIN	11/1/1997 2:00 AM	BIN File	
	🌽 CHL-Analytical Data	INSTALL.EXE	11/1/1997 2:00 AM	Application	
	🎉 Temporary HELP output dumps	INSTALL.FIL	12/30/1997 5:18 PM	FIL File	
		PKUNZIP.EXE	2/1/1993 2:04 AM	Application	
	🧊 Libraries 🗉	README.307	11/1/1997 2:00 AM	307 File	
	Documents	SOURCE.ZIP	11/1/1997 2:00 AM	WinZip File	
	J Music	TAPE3A.ZIP	8/24/1995 3:19 PM	WinZip File	
	E Pictures	TAPE3N.ZIP	2/2/1998 1:57 PM	WinZip File	
	🚼 Videos	TESTMATH.EXE	4/10/1995 12:00 PM	Application	
		SER.ZIP	11/1/1997 2:00 AM	WinZip File	
	🖳 Computer	SER87.ZIP	11/1/1997 2:00 AM	WinZip File	
	Gene OSDisk (C:)	SERNO.ZIP	11/1/1997 2:00 AM	WinZip File	

2

▼ V + HELP → HELP307 → HELP3 →

Organize 💌 📸 Open 🛛 Include in library 💌 Share with 👻 New folder

Name

ANCHORAGE

BIGRAIN

EXAMPLES

FOURLAYER

DOC 💧

MINILF

File Edit View Tools Help

🧥 OneDrive - Environmental Prote

Favorites

Desktop Downloads

References

Documents

A Music

Pictures

Videos

Computer

SDisk (C:

CHL-Analytical Data

To run HELP after it is installed on your computer:

Comments

First, navigate in Windows Explorer (the folder system) to your HELP files.

In this example, the directory is on the Desktop in a HELP parent folder > HELP307 > HELP3 subfolder

Look to the left, if you see zip folders and a HELP3 folder, you need to go into that HELP3 folder.

Double-click the HELP3 folder.

Look for a SOURCE folder. Now we are in the right location. This folder (HELP3) is the folder we will point to (mount) in the DOS emulator.

Note: You will not see all the other folders. Those are created by the user. The EXAMPLE folder has the example files from the installation which may be helpful.

DOC contains the user manual and engineering document.

Note the file path of this location by clicking in the Explorer bar (highlighted).

You will want to write it down as there is not a simple way to copy/paste to the emulator.

Note the EPA username has been censored for security purposes.

Temporary HELP output dumps	BCRA	3/7/2017 2:39 PM	File folder
	ANDIEGO	6/15/2017 11:11 AM	File folder
🔚 Libraries 🗉	SOURCE	11/10/2016 1:13 PM	File folder
Documents	SPOKANE	6/14/2017 11:13 AM	File folder
J Music	TRIALS	12/29/2016 12:02	File folder
E Pictures	ASCIPREC.EXE	11/10/2016 1:12 PM	Application
💾 Videos	ASCISRAD.EXE	11/10/2016 1:12 PM	Application
	ASCITEMP.EXE	11/10/2016 1:12 PM	Application
🛒 Computer	CANPREC.EXE	11/10/2016 1:12 PM	Application
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le Edit View Tools Help	de in library - Charamith - N	au falder	
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Favorites	Name	Dat	te modified
E Desktop	ANCHORAGE	6/15/2017 11:08 A	
🚺 Downloads	BIGRAIN	3/6/2017 1:37 PM	
Recent Places	DOC .	11/	10/2016 1:13 PM
🐔 OneDrive - Environmental Prot	e 🔒 EXAMPLES	12/	29/2016 11:58
References	FOURLAYER	3/1	3/2017 10:03 AN
\mu CHL-Analytical Data	MINILF	3/1	3/2017 2:49 PM
Temporary HELP output dump	s 🔒 RCRA	3/7	/2017 2:39 PM
	SANDIEGO	6/1	5/2017 11:11 AN
1 Changing		11/	10/2016 1 12 01

TRIALS

ASCIPREC.EXE

ASCISRAD.EXE

ASCITEMP.EXE

CANPREC EXE

CANSRAD.EXE

Step	Image	Comments
4	Bit Status (1) products in the status (1) hope in this Implicit (1) products (1	Open your preferred DOS emulator. The command line will read a virtual drive (Z:\> or similar).
	HOME HAL PROTECTION	folder where all the HELP working files are and where your data will be saved.
		In this example HELP is located on the C: drive so we will mount the C: drive.
5	DOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: DOSBOX	Type:
	For a short introduction for new users type: INTRO For supported shell commands type: HELP To adjust the emulated CPU speed, use ctrl-Fil and ctrl-Fi2.	Mount C: C:\[enter your file path here]
	To activate the keymapper ctrl=71. For more information read the README file in the DOSBox directory. HAUE FINT The DOSBox Team http://www.dosbox.com	You cannot paste, so write carefully.
	2:\>SET BLASTER=A220 17 D1 H5 T6	Press Enter.
	2:\mount C: C:\users\desktop\help\help30/\help3 Directory C:\users\desktop\help\help307\help3 doesn't exist. 2:\}mount C: C:\users\ directory Drive C is mounted as local directory C:\users\directoryMiNdesktop\help\help u3\	If successful, the emulator will tell you the C: drive has been mounted.
	Z:>>_	If the directory is incorrect, the emulator will notify you. Look to the left for an example.
6	To activate the keymapper ctrl-F1. For more information read the README file in the DOSBox directo HAVE FUN! The DOSBox Team http://wwww.dosbox.com Z:N>SET BLASTER=A220 17 D1 H5 T6	We've mounted the C: drive directly to the HELP3 folder but the directory will still be pointing to the Z: drive
	Z:\>mount C: C:\users\desktop\help\help307\help3\ Directory C:\users\desktop\help\help307\help3 doesn't exist.	Type: C:
	Z:>>mount C: C:\users\channelle\desktop\help\help307\help3 Drive C is mounted as local directory C:\users\channelle\desktop\} p3\ Z:\>C:	Press Enter
	C:>>_	The directory will now be pointing to the C: drive.
		IMPORTANT: The emulator displays C:\ but really the drive is directly pointing to the file path you specified. So whenever you see C:\ in later in the HELP program it is really to the HELP3 folder.

Step	Image	Comments
7	DOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: DOSBOX C:>>help If you want a list of all supported commands type help /all .	Let's load the program.
	A short list of the most often used commands: CDIR > Directory Uiew. CCD > Displays/changes the current directory. CCLS > Clear screen. CCDY > Copy Files.	You may be tempted to type HELP.
	⟨DEL > Removes one or more files. ⟨EXIT > Exit from the shell. ⟨M0 > Moke Directory.	But that will give you the help menu
	<rd< td=""> > Remove Directory. <ren< td=""> > Renames one or more files. <type< td=""> > Display the contents of a text-file. <ver< td=""> > View and set the reported DOS version.</ver<></type<></ren<></rd<>	for the Emulator (of course).
	C: \>help3_	With the C: > directory mounted
		Type: HELP3
		Press Enter
8	DOSBex 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: HBLOGO 📄 🕑 🚾	HELP is now loaded and ready for use!
	ЦГГР	
	Uersion 3.07 1 November 1997	
	Developed by Environmental Laboratory	
	Vicksburg, Mississippi 39180-6199	
	USEPA Risk Reduction Engineering Laboratory Cincinnati, Ohio 45260	
	Press any key to continue	
9	B DOBen UX4 Cpu geed: 300 cycle, femeralgr () Frager: DESOV C C C C C C C C C C C C C C C C C C C	One last quick note about functionality:
	Sove	We recommend creating a new folder
		for each HELP simulation in Windows
		Explorer before you create new files in
		HELP.
	K I D 1515 Files on Specifie Directory File of Files and File Directory File of Files And File Directory	
	Organize + 😥 Open Include in library + Share with + New folder Trootes Name Date modified Type	When you go to save the files in HELP,
	Dektop BIGRAN 36/2017 L37 PM File Downloads DOCC 11/3/2015 L37 PM File DRECKP Rece DOAMPL5 12/3/2015 L30 PM File	because you mounted the C:\ drive
	Conditive - Environmental Prote Conditive - Environmental Proteinese Condititee Conditive - Environmental Prot	directly to the HELP3 folder, you don't
	Improve MLP solption dumps SAREEGO GL12021 1027 AM File Sugget	the new folder name.
		C:\SANDIEGO in HELP
		18 1cally C:\users\desktop\\HELP\HELP307\HELP3\SANDIEGO
		on the computer

	Comments		tep Image	Step
hin	Also, the print functionality within	neskip (), Program: WEATHER 🔤 🔲 💌 28. DATA – FILE SAVING	DOSBox 0.74, Cpu speed: 3000 cycles, Fran WEATHE	10
orinting	HELP is not recommended for prin			
C	the output files.	DIRECTORY	SAUE V/N PRECIPITATION V C:\Sa TEMPERATURE V C:\Sa STI OF ROLOTION V C:\Sa	
and	Locate the output file (*.OUT) and	and iego DATA11	EVAPOTRANSPIRATION Y C:\sa	
litor for	open with your preferred text editor printing or saving as PDF.) which the weather data are to be saved.	Enter names for files in	
for it	You may want to resize the text for to display properly.	Tiles on Specified Directory P9-Quit F10=End PgUp=Cycle PgDn=Proceed	Pd = List F F1=Info F2=Help F3=Keys	
	Questions can be directed to:	HELP3 > SANDIEGO		
			File Edit View Tools Help	
	tolaymat.thabet@epa.gov	Share with 🔻 New folder	Organize 🔻 Include in library 🔻	
		Name Date modified	★ Favorites	
	u	CATA4.D4 6/13/2017 11:55 AN	Desktop	
		Z DATA10.D10 6/13/2017 10:38 AN	Secent Places	
	Happy HELPing!	DATA11.D11 6/13/2017 11:55 AN	OneDrive - Environmental Prote	
		DATA13.D13 6/13/2017 11:55 AM	References	
		SAN10YR.OUT 6/13/2017 11:58 AN	UCHL-Analytical Data	
fo	Locate the output file (*.OUT) and open with your preferred text editor printing or saving as PDF. You may want to resize the text for to display properly. Questions can be directed to: tolaymat.thabet@epa.gov Happy HELPing!	Mairegov Dama Mairegov Dama Mairegov Dama Dama Dama Dama Dama Dama Dama Dama Dama Dama Dama Dama Pierocead HELP3 → SANDIEGO Share with ▼ New folder Name Date modified Pierocead Name Date modified Data1.001 6/3/2017 11:55 Ah © DatA1.001 6/3/2017 11:55 Ah © DatA1.001 6/3/2017 11:55 Ah © DatA3.013 6/13/2017 11:55 Ah	PRECIPITATION Y C::sa SULAR RADIATION Y C::sa SULAR RADIATION Y C::sa EVAPOTRANSPIRATION Y C::sa Enter names for files in References File Edit View Tools Help Organize Include in library • Favorites Confine Enter Sular State Confine Enter State Confine Edit View Tools Help Organize Include in library • Favorites Confine Enter State Confine Ente	