

11.4.2.7 Lab – File System Commands

ITM-2006

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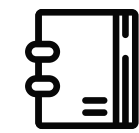
OUTLINE



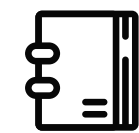
Introduction



Steps to implement



Questions and answers



Quiz

Introduction

In this lab, we will use CLI commands to manage files and folders in Windows.

Recommended Equipment:

- A computer running Windows





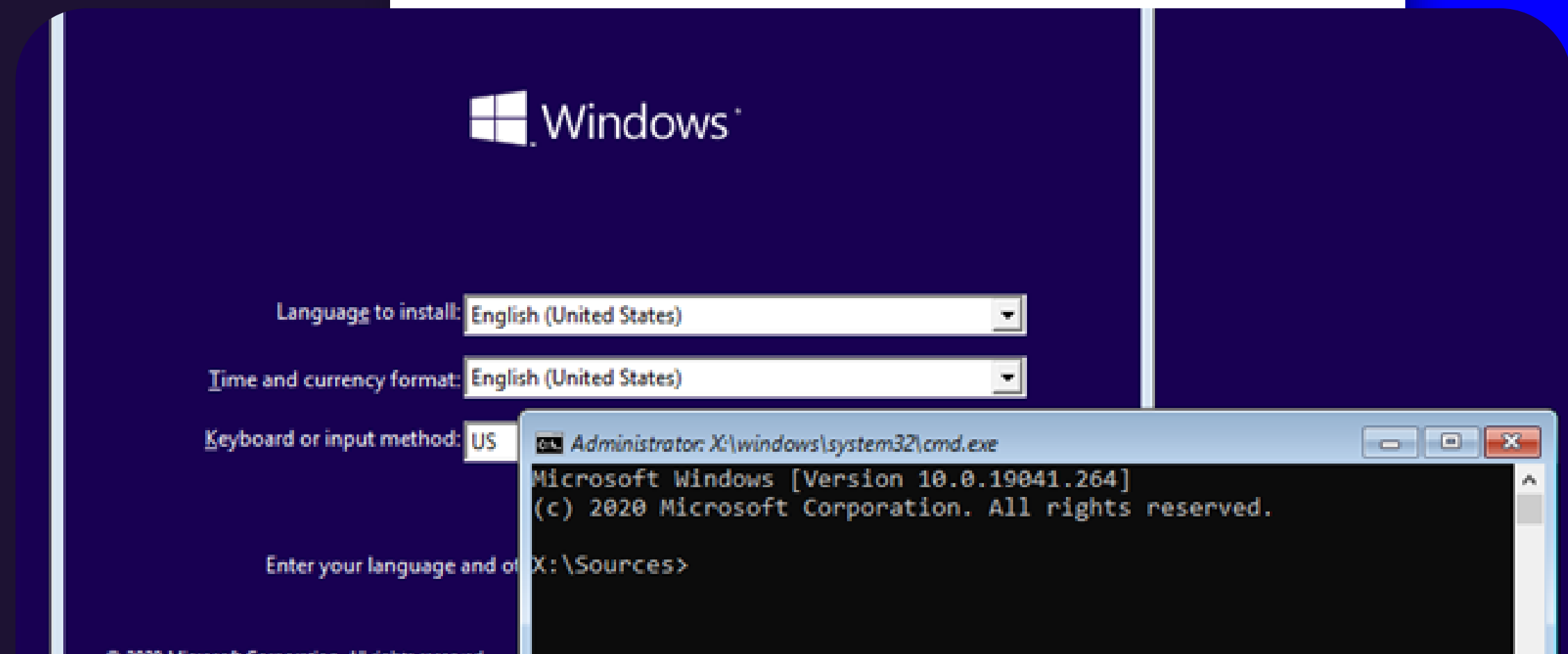
Log on to a Windows computer. The account ITEUser is used as the example user account throughout this lab.



To access the Windows command prompt, click Start and enter cmd. Select Command Prompt or cmd.exe to continue

STEP 1

Access the Windows command prompt



- Type cd at the command prompt.

Question:

What is the current directory?

CD is a command found inside the Windows Command Processor (cmd) that allows for change of the current working directory of a shell instance.

Example:

The directory C:\Users\ITEUser

STEP 2. Create and change directories

In this step, you will use the change directory (cd), make directory (md), and directory (dir) commands.

```
Command Prompt
Microsoft Windows [Version 10.0.17763.55]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\codru>cd\

C:\>cd windows\system32

C:\Windows\System32>cd..

C:\Windows>d:

D:\>cd /d C:\Windows ←

C:\Windows>
```

- Type `dir` at the command prompt to list the files and folders that are in the current folder

STEP 2. Create and change directories

In this step, you will use the change directory (`cd`), make directory (`md`), and directory (`dir`) commands.

```
C:\Users\ITEUser> dir
Volume in drive C has no label.
Volume Serial Number is 9055-35E9

Directory of C:\Users\ITEUser

04/27/2019  09:21 AM    <DIR>          .
04/27/2019  09:21 AM    <DIR>          ..
04/25/2019  11:39 AM    <DIR>          3D Objects
04/25/2019  11:39 AM    <DIR>          Contacts
04/26/2019  10:29 AM    <DIR>          Desktop
04/25/2019  11:39 AM    <DIR>          Documents
04/25/2019  11:39 AM    <DIR>          Downloads
<some output omitted>

            0 File(s)                0 bytes
            15 Dir(s)  32,671,969,280 bytes free
```

STEP 2

In the current directory, use the md command to create three new folders: ITEfolder1, ITEfolder2, and ITEfolder3. Type md ITEfolder1 and press Enter. Create ITEfolder2 and ITEfolder3.

Note: The command mkdir performs the same function as the command md.

```
C:\Users\ITEUser> md ITEfolder1
```

```
C:\Users\ITEUser> md ITEfolder2 ITEfolder3
```

Type dir to verify that the folders have been created.

STEP 2

Type `cd ITEfolder3` at the command prompt and press Enter.

Question:

Which folder are you in now?

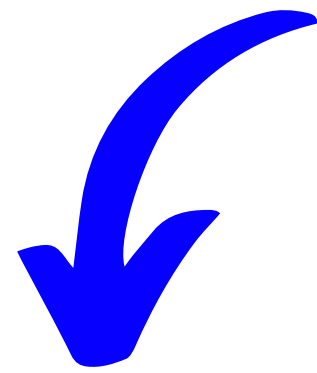
The current directory is
`C:\Users\ITEUser\ITEfolder3`

User	Computer Name	Current Working Directory	Privilege Level
ITEUser	@ iteuser-VirtualBox	:~/ITEfolder3	\$

STEP 2

Create ITEfolder4 in the current directory. Within the ITEfolder4 folder, create a folder named ITEfolder5. Use the dir command to verify the folder creation.

What command or commands did you use to create the nested folders?



This can be accomplished in 1 or 2 commands to create the folders:

Change directory as necessary until you are in ITEfolder5.

```
C:\Users\ITEUser\ITEfolder3> md ITEfolder4\ITEfolder5
```

Or

```
C:\Users\ITEUser\ITEfolder3> md ITEfolder4
```

```
C:\Users\ITEUser\ITEfolder3> cd ITEfolder4
```

```
C:\Users\ITEUser\ITEfolder3\ITEfolder4> md ITEfolder5
```

STEP 2

Type `cd ..` to change the current directory. Each `..` is a shortcut to move up one level in the directory tree.

Questions:

After issuing the `cd ..` command, what is your directory now?

What would be the current directory if you issue this command at `C:\Users\ITEUser\ITEfolder3\ITEFolder4`?

- `C:\Users\ITEUser\ITEfolder3\ITEFolder4`
- `C:\Users\ITEUser\ITEFolder3`

- Navigate to the C:\Users\ITEUser\ITEfolder1 directory. Type cd ..\ITEfolder1 at the prompt

Echo - to display a message at the command prompt.
The > - to redirect the message from the screen to a file.

STEP 3

```
C:\Users\ITEUser\ITEfolder1> echo This is doc1.txt > doc1.txt
C:\Users\ITEUser\ITEfolder1> echo This is doc2.txt > doc2.txt
C:\Users\ITEUser\ITEfolder1> echo This is file1.txt > file1.txt
C:\Users\ITEUser\ITEfolder1> echo This is file2.txt > file2.txt
```

```
C:\Users\ITEUser\ITEFolder1> dir
<some output omitted>
04/29/2019  08:05 AM                19 doc1.txt
04/29/2019  08:06 AM                19 doc2.txt
04/29/2019  08:08 AM                20 file1.txt
04/29/2019  08:08 AM                20 file2.txt
               4 File(s)                78 bytes
               2 Dir(s)  32,625,397,760 bytes free
```

dir - to verify the files are in the ITEfolder1 folder

more / type - to view the content of the newly created text files

```
C:\Users\ITEUser\ITEfolder1> more doc1.txt
This is doc1.txt
```

```
C:\Users\ITEUser\ITEfolder1> type doc2.txt
This is doc2.txt
```

- type `move doc2.txt C:\Users\ITEUser\ITEfolder2` to move the file `doc2.txt` to the `C:\Users\ITEUser\ITEfolder2` directory.

```
C:\Users\ITEUser\ITEfolder1> move doc2.txt C:\Users\ITEUser\ITEfolder2
1 file(s) moved.
```

`dir` - to verify that `doc2.txt` is no longer in the current directory.

- Navigate to `C:\Users\ITEUser\ITEfolder2` to change the directory to `ITEfolder2`.

`dir` - to verify `doc2.txt` has been moved

- copy `doc2.txt doc2_copy.txt` to create a copy of `doc2.txt`.

`dir` - to verify a copy of the file has been created

STEP 4

Copy, delete, and move files

```
C:\Users\ITEUser\ITEfolder2> dir
<some output omitted>
Directory of C:\Users\ITEUser\ITEfolder2

04/30/2019  09:07 AM                19 doc2.txt
04/30/2019  09:07 AM                19 doc2_copy.txt
                2 File(s)                38 bytes
                2 Dir(s)  31,753,068,544 bytes free
```

STEP 4

Copy, delete, and move files

- move command to move doc2_copy.txt to ITEfolder1. Type move doc2_copy.txt ..\ITEfolder1.

```
C:\Users\ITEUser\ITEfolder2> move doc2_copy.txt ..\ITEfolder1
1 file(s) moved.
```

- A copy of the file doc2.txt can be created in a new location using the copy command. At the prompt, enter the copy doc2.txt ..\ITEfolder1\doc2_new.txt.

```
C:\Users\ITEUser\ITEfolder2> copy doc2.txt ..\ITEfolder1\doc2_new.txt
1 file(s) copied.
```

- The file doc2.txt can also be moved to a new location with a new filename using the move command. Type move doc2.txt ..\ITEfolder1\doc2_new.txt at the prompt.

```
C:\Users\ITEUser\ITEfolder2> move doc2.txt ..\ITEfolder1\doc2_move.txt
1 file(s) moved.
```


- `dir ..\ITEfolder1` to view the content in ITEfolder1 without leaving the current directory.

```
C:\Users\ITEUser\ITEfolder2> dir ..\ITEfolder1
<some output omitted>
Directory of C:\Users\ITEUser\ITEfolder1
04/29/2019 12:08 PM <DIR> .
04/29/2019 12:08 PM <DIR> ..
04/29/2019 08:05 AM 19 doc1.txt
04/29/2019 08:06 AM 19 doc2_copy.txt
04/29/2019 08:06 AM 19 doc2_move.txt
04/29/2019 08:06 AM 19 doc2_new.txt
04/29/2019 08:08 AM 20 file1.txt
04/29/2019 08:08 AM 20 file2.txt
                6 File(s) 116 bytes
                2 Dir(s) 31,467,700,224 bytes free
```

- Change the current directory to ITEfolder1. Type `cd ..\ITEfolder1` at the prompt.
- Move file1.txt and file2.txt into ITEfolder3. To move all the files that contain the word file into ITEfolder3 with one command, use a wildcard (*) character to represent one or more characters. Type `move file* ..\ITEfolder3`.

```
C:\Users\ITEUser\ITEfolder1> move file* ..\ITEfolder3
C:\Users\ITEUser\ITEfolder1\file1.txt
C:\Users\ITEUser\ITEfolder1\file2.txt
                2 file(s) moved.
```

STEP 4

Copy, delete, and move files

STEP 4

Copy, delete, and move files

- To view the content of the file doc2_new.txt, use the type or more command at the prompt.

```
C:\Users\ITEUser\ITEfolder1> type doc2_new.txt  
This is doc2.txt
```

- Use the ren command to rename doc2_new.txt to doc3.txt. Use the dir command to display the content in the directory.

```
c:\Users\ITEUser\ITEfolder1> ren doc2_new.txt file.log
```

- Use the type or more command to view the content of the newly rename file file.log.

```
C:\Users\ITEUser\ITEfolder1> more file.log  
This is doc2.txt
```

- Use the del to delete a file or multiple files

What single command would you use to delete all the files with doc2 in the filename?

Use the command to remove the files with doc2 in the filename.

```
C:\Users\ITEUser\ITEfolder1> del doc2*
```

What command would you use to delete all the files in the directory?

Use the command to remove the files.

```
C:\Users\ITEUser\ITEfolder1> del *.*
```

STEP 5

Use the xcopy and robocopy commands.

In this step, the xcopy and robocopy commands are used to copy the content in a directory

- xcopy - to copy the content of one folder to another.
Note the . at the end of the command is a shortcut for the current directory.
- help xcopy or xcopy /? to determine which switch would allow the xcopy command to copy all the files and directories.
- The robocopy command can also be used to copy the content of a directory to a new destination.

```
C:\Users\ITEUser\ITEfolder1> robocopy /E  
C:\Users\ITEUser\ITEfolder3\ITEfolder4\ C:\Users\ITEUser
```

Note the information provided by the command during the copying process. Navigate to C:\Users\ITEUser to verify that the folder ITEfolder5 is copied.

```
C:\Users\ITEUser\ITEfolder1>
```

```
<some output>
```

```
Directory of
```

```
04/29/2019 04:29 PM
```

```
04/29/2019 04:29 PM
```

```
04/29/2019 04:29 PM
```

```
04/29/2019 04:29 PM
```

STEP 6

Use `rd ITEfolder2` to delete the empty directory and verify that the directory was deleted.

You were not able to delete the directory because it was not empty.

- Use the `rd ITEfolder1` to delete the directory. Verify the directory removal using the `dir` command.
- Were you able to delete the directory? Explain.
- Use `rd /?` command to determine the switch that allows the deletion of a non-empty directory
- Use the appropriate commands to delete all the text files and folders that you have created in this lab.
- Type `exit` to close the command prompt window.

```
C:\Users\ITEUser> rd ITEfolder2
```

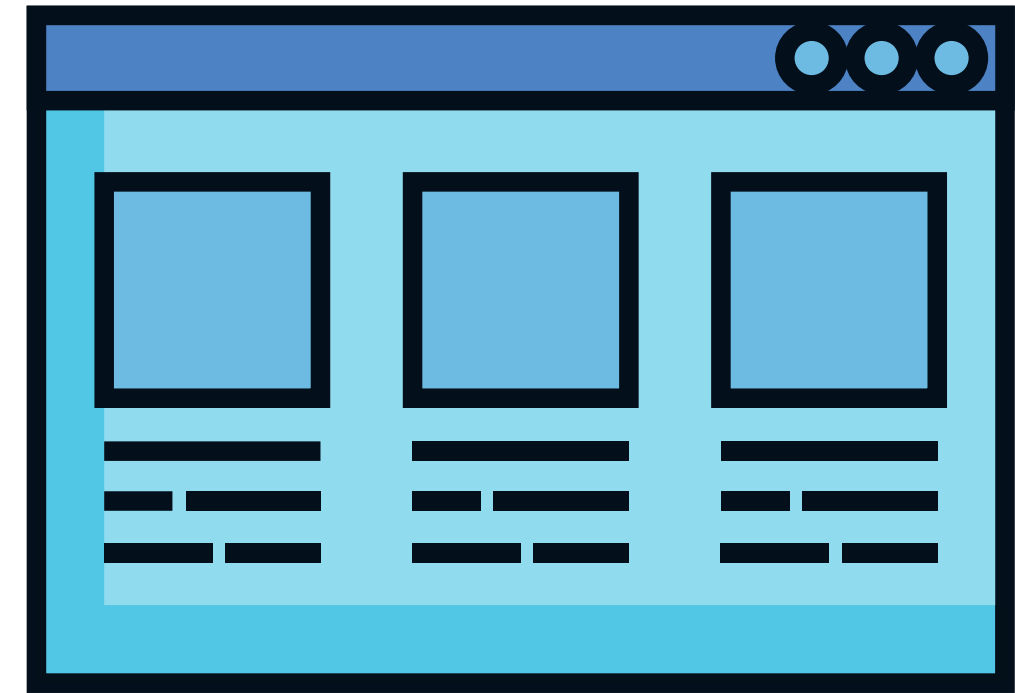
```
c:\Users\ITEUser\ITEfolder3> rd /S ITEfolder1  
ITEfolder4, Are you sure (Y/N)? y
```



What are the advantages of using GUI vs. CLI?

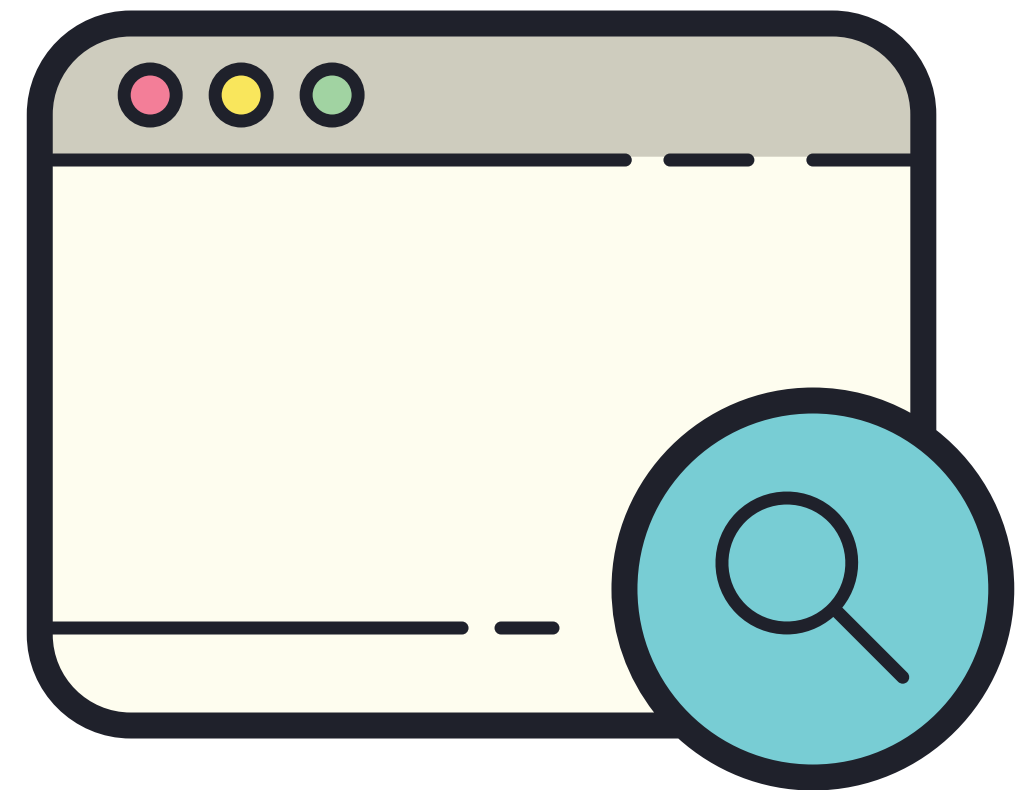
GUI

- + Easy to learn and use
- + Little training
- + Amenable to multi-tasking



CLI

- + More flexible and powerful
- + Faster for experienced users
- + Can combine commands



CHECK YOUR KNOWLEDGE



QUIZ