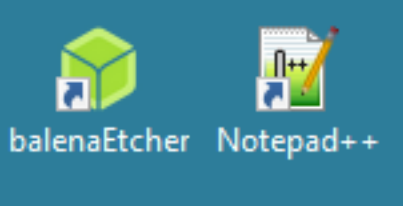
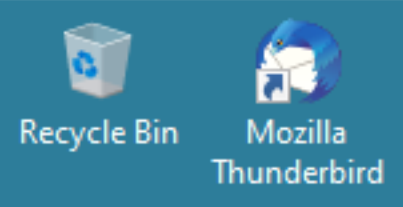


CIFS Mount Example

This presentation creates two shares on a Windows 10 system. The presentation uses CentOS 7 to mount one of the shares on the Windows 10 system. The presentation creates a shell script to test if the share is read only or read write.

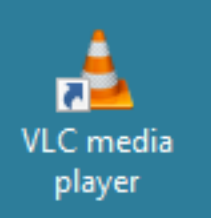
Preuss

10/27/2019

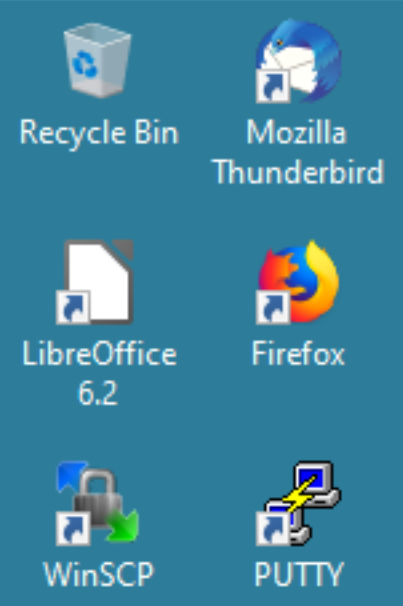


LEGO MINDSTORMS Education EV3
Location: MindstormsEV3 (C:\Program Files (x86)\LEGO Software\LEGO MINDSTORMS Edu EV3)

ROBOTC for LEGO Min...

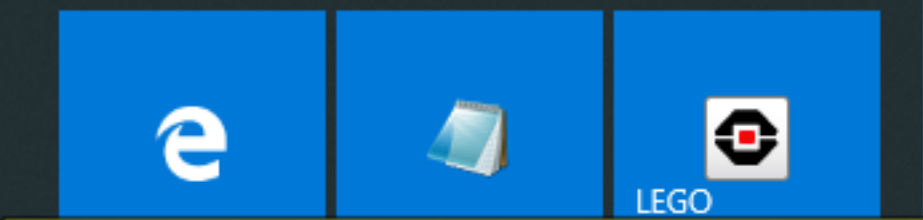


The presentation starts Windows 10. It is not necessary to have any of the software shown.



Start Menu (Dark Theme)

- Voice Recorder
- Life at a glance
- W
- Weather
- Windows Accessories
- Windows Administrative Tools
- Windows Ease of Access
- Windows PowerShell
- Windows Security
- Windows System
- Command Prompt
- Control Panel
- File Explorer
- Run
- Task Manager
- This PC
- Windows Administrative Tools
- WinSCP



The presentation starts the command prompt as administrator.

Context Menu for Command Prompt

- Unpin
- More >
- Pin to taskbar
- Run as administrator
- Open file location

The presentation provides the administrator password to continue.

User Account Control

Do you want to allow this app to make changes to your device?

 Windows Command Processor

Verified publisher: Microsoft Windows

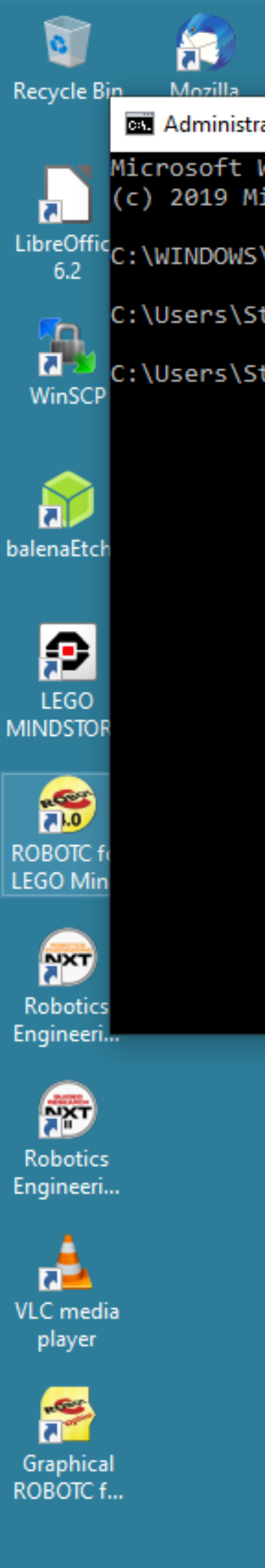
[Show more details](#)

To continue, enter an admin user name and password.

Student

WIN10-LEGO-S201\Student

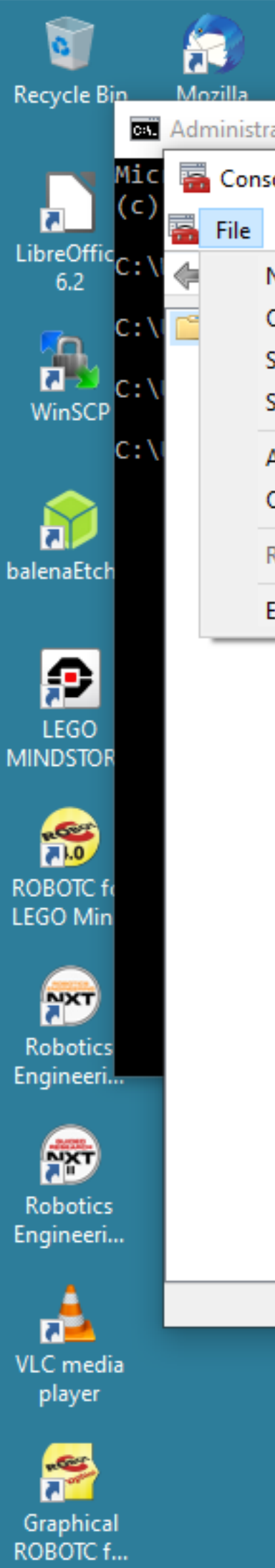
Yes No



```
Administrator: Command Prompt
Microsoft Windows [Version 10.0.18362.449]
(c) 2019 Microsoft Corporation. All rights reserved.
C:\WINDOWS\system32>cd \Users\Student
C:\Users\Student>cd Documents
C:\Users\Student\Documents>mmc_
```

The presentation changes the default directory as shown. It is not necessary, usually.

The presentation issues the "mmc" command as shown.



Administrator: Command Prompt

Console1 - [Console Root]

File Action View Favorites Window Help

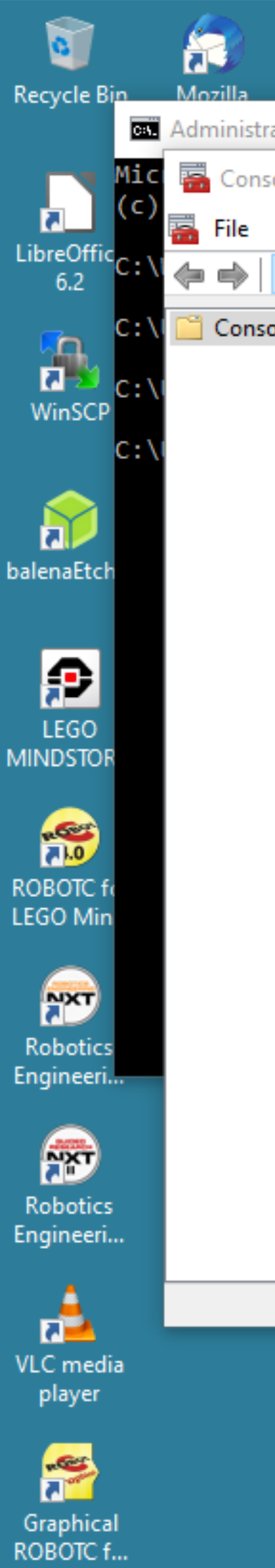
- New Ctrl+N
- Open... Ctrl+O
- Save Ctrl+S
- Save As...
- Add/Remove Snap-in... Ctrl+M
- Options...
- Recent File
- Exit

There are no items to show in this view.

Actions

- Console Root
- More Actions

The presentation issues the "Add/Remove Snap-in" from the File menu.



Administrator: Command Prompt

Console1 - [Console Root]

File Action View Favorites Window Help

← → [Icons] ? [Icons]

Console Root

Add or Remove Snap-ins

You can select snap-ins for this console from those available on your computer and configure the selected set of snap-ins. For extensible snap-ins, you can configure which extensions are enabled.

Available snap-ins:

Snap-in	Vendor
Link to Web Address	Microsoft Cor...
Local Users and Gro...	Microsoft Cor...
Performance Monitor	Microsoft Cor...
Print Management	Microsoft Cor...
Resultant Set of Policy	Microsoft Cor...
Security Configurati...	Microsoft Cor...
Security Templates	Microsoft Cor...
Services	Microsoft Cor...
Shared Folders	Microsoft Cor...
Task Scheduler	Microsoft Cor...
TPM Management	Microsoft Cor...
Windows Defender ...	Microsoft Cor...
WMI Control	Microsoft Cor...

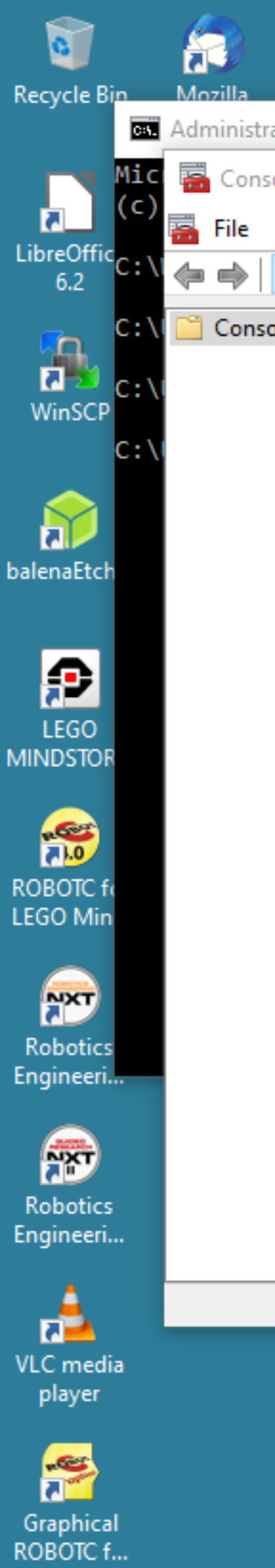
Selected snap-ins:

Console Root [Edit Extensions...]

Description:
Manages Local Users and Groups

OK Cancel

The presentation adds the "Local Users and Groups" object.



Administrator: Command Prompt

Console1 - [Console Root]

File Action View Favorites Window Help

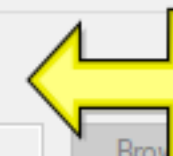
Console Root

Choose Target Machine

Select the computer you want this snap-in to manage.

This snap-in will always manage:

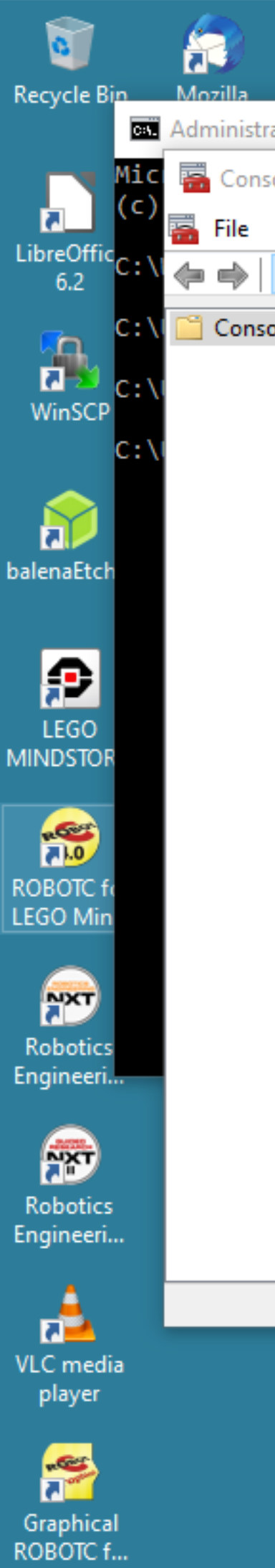
- Local computer: (the computer on which this console is running)
- Another computer:
- Allow the selected computer to be changed when launching from the command line only applies if you save the console.



The presentation selects "Local computer". The presentation selects "Finish".

< Back Finish

OK Cancel



Administrator: Command Prompt

Console1 - [Console Root]

File Action View Favorites Window Help

Console Root

Add or Remove Snap-ins

You can select snap-ins for this console from those available on your computer and configure the selected set of snap-ins. For extensible snap-ins, you can configure which extensions are enabled.

Available snap-ins:

Snap-in	Vendor
Link to Web Address	Microsoft Cor...
Local Users and Gro...	Microsoft Cor...
Performance Monitor	Microsoft Cor...
Print Management	Microsoft Cor...
Resultant Set of Policy	Microsoft Cor...
Security Configurati...	Microsoft Cor...
Security Templates	Microsoft Cor...
Services	Microsoft Cor...
Shared Folders	Microsoft Cor...
Task Scheduler	Microsoft Cor...
TPM Management	Microsoft Cor...
Windows Defender ...	Microsoft Cor...
WMI Control	Microsoft Cor...

Selected snap-ins:

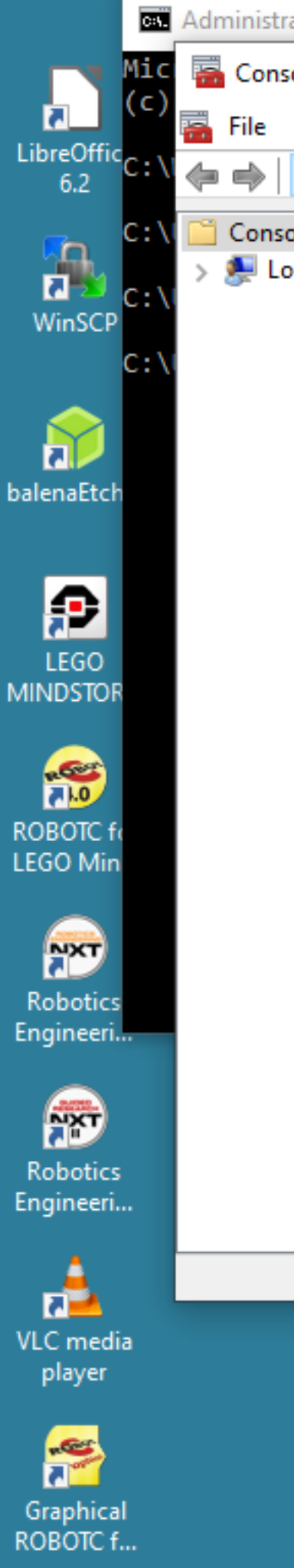
- Console Root
- Local Users and Groups (Local)

Add >

Description:
Manages Local Users and Groups

OK Cancel

The presentation double clicks on "Local Users and Groups" object.



Administrator: Command Prompt

Console1 - [Console Root]

File Action View Favorites Window Help



Console Root

> Local Users and Groups (Local)

Name

Local Users and Groups (Local)

The presentation double clicks on the "Local Users and Groups" object.

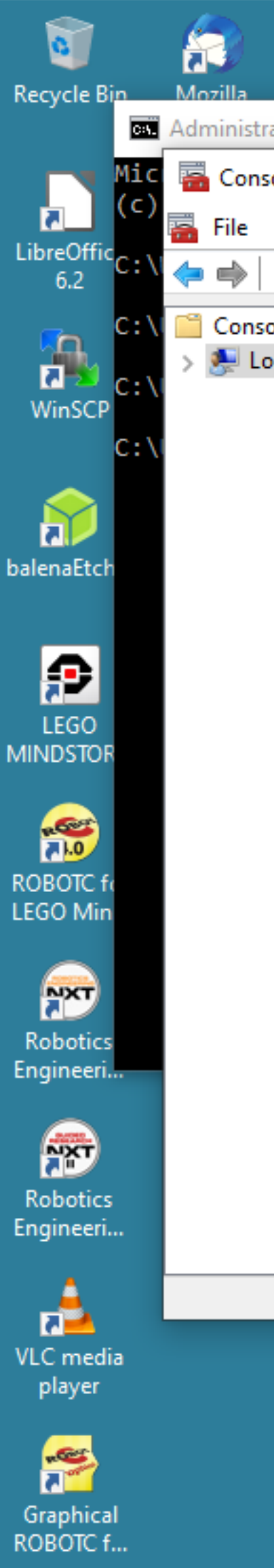
Actions

Console Root

More Actions

Local Users and Groups (Local)

More Actions



Administrator: Command Prompt

Console1 - [Console Root\Local Users and Groups (Local)]

File Action View Favorites Window Help

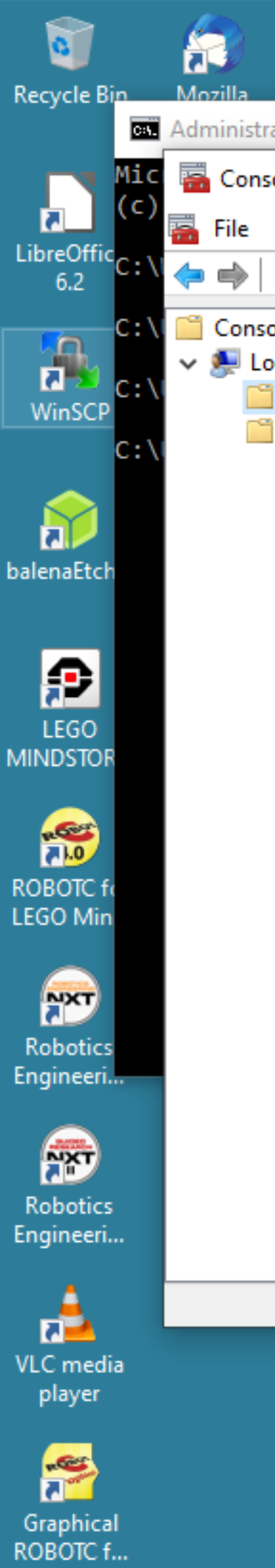
Console Root

- Local Users and Groups (Local)

Name
Users
Groups

Users and Groups (Local) More Actions More Actions

The presentation opens the "Users" object.



Administrator: Command Prompt

Console1 - [Console Root\Local Users and Groups (Local)\Users]

File Action View Favorites Window Help

Name	Full Name	Description
Administrator		Built-in account for administrators

Local Users and Groups (Local)

- Users
- Groups

Context Menu:

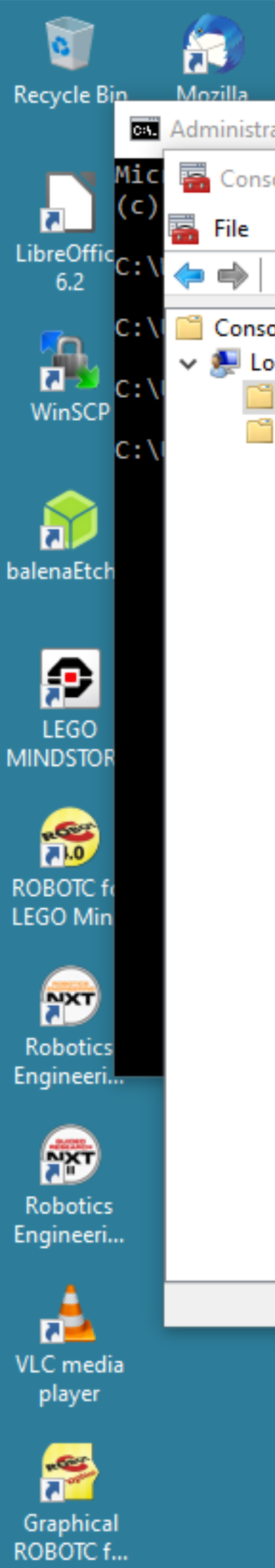
- New User...
- View >
- New Window from Here
- New Taskpad View...
- Refresh
- Export List...
- Help

Actions Panel:

- Users
- More Actions

The presentation right clicks on "Users" to get the menu shown.

The presentation selects "New User".



Administrator: Command Prompt

Console1 - [Console Root\Local Users and Groups (Local)\Users]

File Action View Favorites Window Help

Name	Full Name	Description
Administrator		
DefaultAcco...		
Guest		
Student		
student01		
WDAGUtility...		

Local Users and Groups (Local)

- Users
- Groups

New User

User name: albatross01

Full name:

Description: Test01

Password: [Masked]

Confirm password: [Masked]

User must change password at next logon

User cannot change password

Password never expires

Account is disabled

Help Create Close

Actions

- Users
- More Actions

The presentation creates a fictious logon for the demonstration.

- Recycle Bin
- Mozilla
- LibreOffice 6.2
- WinSCP
- balenaEtch
- LEGO MINDSTORMS
- ROBOTC for LEGO Min
- Robotics Engineeri...
- Robotics Engineeri...
- VLC media player
- Graphical ROBOTC f...

Administrator: Command Prompt

Console1 - [Console Root\Local Users and Groups (Local)\Users]

File Action View Favorites Window Help

	Name	Full Name	Description	Actions
Administrator	Administrator		Built-in account for administrative tasks	
albatross01	albatross01	albatross01	Test01	
albatross02	albatross02	albatross02		
DefaultAcco...	DefaultAcco...		A user account managed by Active Directory	
Guest	Guest		Built-in account for guest users	
Student	Student			
student01	student01			
WDAGUtility...	WDAGUtility...		A user account managed by Active Directory	

The presentation verifies two new logons are created.

- Recycle Bin
- Mozilla
- LibreOffice 6.2
- WinSCP
- balenaEtch
- LEGO MINDSTORMS
- ROBOTC for LEGO Min
- Robotics Engineeri...
- Robotics Engineeri...
- VLC media player
- Graphical ROBOTC f...

Administrator: Command Prompt

Console1 - [Console Root\Local Users and Groups (Local)\Users]

File Action View Favorites Window Help

Name	Full Name	Description	Actions
Administrator		Built-in account for administering...	
albatross01	albatross01	Test01	
albatross02	albatross02		
DefaultAcco...		A user account managed by the s...	
Guest		Built-in account for guest access t...	
Student			
student01			
WDAGUtility...			

Microsoft Management Console

! Save console settings to Console1?

Yes No

The presentation selects "No" to exit out of the "console1".

- Recycle Bin
- Mozilla Thunderbird
- LibreOffice 6.2
- Firefox
- WinSCP
- PuTTY
- balenaEtcher
- Notepad++
- LEGO MINDSTOR...
- ROBOTC for LEGO Min...
- Robotics Engineeri...
- Robotics Engineeri...
- VLC media player
- Graphical ROBOTC f...

Documents

File Home Share View

< > > This PC > Documents >

Search Documents

Name	Date modified	Type	Size
ev3dev	4/11/2019 1:02 PM	File folder	
grading	5/9/2019 10:24 AM	File folder	
LEGO Creations	8/23/2017 7:34 PM	File folder	
notepad-pp	4/11/2019 12:56 PM	File folder	
program_install	4/16/2019 1:07 PM	File folder	
python	4/15/2019 5:11 PM	File folder	
2ram_list.txt	1/23/2019 3:23 PM	Text Document	
cpu_list.txt	1/23/2019 3:19 PM	Text Document	
ram_list.txt	1/23/2019 3:20 PM	Text Document	
scp_all.bat	4/15/2019 4:43 PM	Windows Batch F	
Software_Inventory.ps1	1/18/2019 12:43 PM	Windows PowerS	

11 items

The presentation creates two folders. One is named "data01 and the other "data02".

This is not shown.

- Recycle Bin
- LibreOffice 6.2
- WinSCP
- balenaEtcher
- LEGO MINDSTOR...
- ROBOTC for LEGO Min...
- Robotics Engineeri...
- Robotics Engineeri...
- VLC media player
- Graphical ROBOTC f...
- Mozilla Thunderbird
- Firefox
- PUTTY
- Notepad++

File Explorer sidebar showing navigation pane with folders like Desktop, Downloads, Documents, Pictures, Content, grading, python, Robotics Engine, OneDrive, This PC, Network.

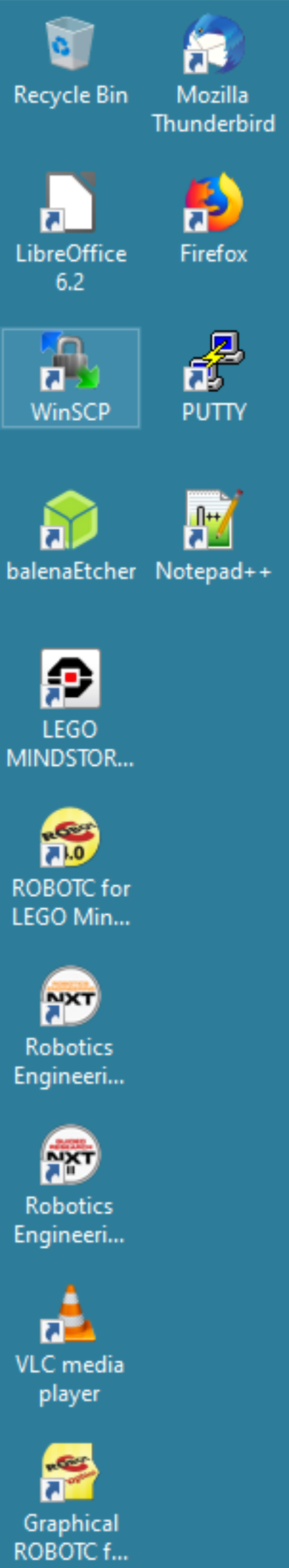
*data01.txt - Notepad

This is the data02 test document.

Save As dialog box showing file name: data02.txt, Save as type: Text Documents (*.txt), Encoding: UTF-8.

File Explorer window showing search results for 'data02' in 'This PC > Documents > data02' folder. Search results: No items match your search.

The presentation puts a data document in "data02" as shown. The presentation does the same for "data01" folder.



Documents

File Home Share View

This PC > Documents

Name	Date modified	Type	Size
data01	10/25/2019		
data02			
ev3dev			
gradin			
LEGO C			
notepa			
progra			
python			
2ram_l			
cpu_lis			
ram_lis			
scp_all			
Softwa			

- Open
- Open in new window
- Pin to Quick access
- Add to VLC media player's Playlist
- Play with VLC media player
- 7-Zip
- CRC SHA
- Scan with Windows Defender...
- Give access to
- Restore previous versions
- Include in library
- Pin to Start
- Send to
- Cut
- Copy
- Create shortcut
- Delete
- Rename
- Properties

13 items | 1 item selected

The presentation right clicks on the "data01" folder to get this menu.

The presentation selects the "Properties" option.

- Recycle Bin
- Mozilla Thunderbird
- LibreOffice 6.2
- Firefox
- WinSCP
- PUTTY
- balenaEtcher
- Notepad++
- LEGO MINDSTOR...
- ROBOTC for LEGO Min...
- Robotics Engineeri...
- Robotics Engineeri...
- VLC media player
- Graphical ROBOTC f...

Documents

File Home Share View

This PC > Documents

Name	Date modified	Type	Size
data01	10/25/2019 4:25 PM	File folder	
data02			
ev3dev			
grading			
LEGO C			
notepad			
program			
python			
2ram_lis			
cpu_list			
ram_list			
scp_all.b			
Software			

data01 Properties

General Sharing Security

data01

Type: File folder

Location: C:\Users\student01\Do

Size: 33 bytes (33 bytes)

Size on disk: 0 bytes

Contains: 1 Files, 0 Folders

Created: Friday, October 25, 2019

Attributes: Read-only (Only appl) Hidden

Advanced...

OK Cancel Apply

13 items | 1 item selected

The presentation selects the "Security" tab.

- Recycle Bin
- LibreOffice 6.2
- WinSCP
- balenaEtcher
- LEGO MINDSTOR...
- ROBOTC for LEGO Min...
- Robotics Engineeri...
- Robotics Engineeri...
- VLC media player
- Graphical ROBOTC f...
- Mozilla Thunderbird
- Firefox
- PUTTY
- Notepad++
- OneDrive
- This PC
- Network

Documents

File Home Share View

This PC > Documents

Search Documents

Name	Date modified	Type	Size
data01	10/25/2019 4:25 PM	File folder	
data02			
ev3dev			
grading			
LEGO C...			
notepad			
program			
python			
2ram_lis			1 KB
cpu_list			3 KB
ram_list			
scp_all.b			
Software			

data01 Properties

General Sharing Security Previous Versions Customize

Object name: C:\Users\student01\Documents\data01

Group or user names:

- SYSTEM
- student01 (WIN10-LEGO-S201\student01)
- Administrators (WIN10-LEGO-S201\Administrators)

To change permissions, click Edit.

Edit...

Permissions for SYSTEM	Allow	Deny
Full control	✓	
Modify	✓	
Read & execute	✓	
List folder contents	✓	
Read	✓	
Write	✓	

For special permissions or advanced settings, click Advanced.

Advanced

OK Cancel Apply

The presentation selects "Edit".

- Recycle Bin
- Mozilla Thunderbird
- LibreOffice 6.2
- Firefox
- WinSCP
- PUTTY
- balenaEtcher
- Notepad++
- LEGO MINDSTOR...
- ROBOTC for LEGO Min...
- Robotics Engineeri...
- Robotics Engineeri...
- VLC media player
- Graphical ROBOTC f...

Documents

File Home Share View

This PC > Documents

Name	Date modified	Type	Size
data01	10/25/2019 4:25 PM	File folder	
data02			
ev3dev			
grading			
LEGO C...			
notepad			
program			
python			
2ram_list			1 KB
cpu_list			3 KB
ram_list			2 KB
scp_all.b		File	2 KB
Software		erS...	1 KB

data01 Properties

General Sharing Security Previous Versions Customize

Object name: C:\Users\student01\Documents\data01

Group or user names:

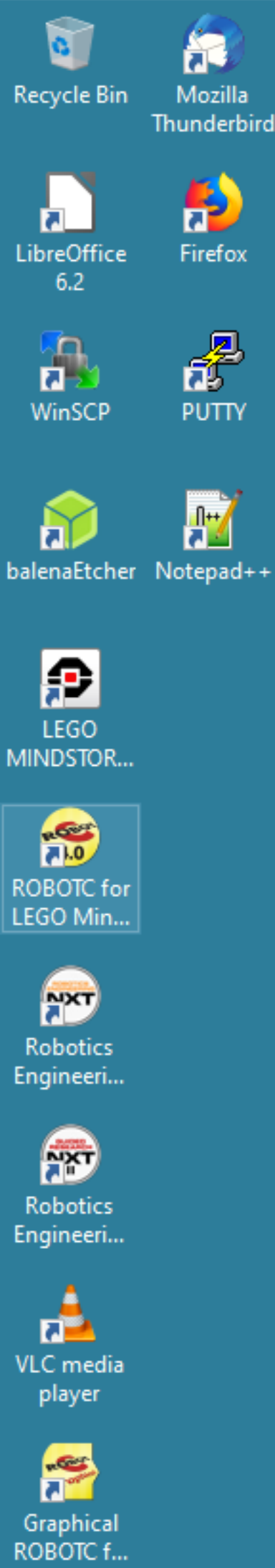
- SYSTEM
- student01 (WIN10-LEGO-S201\student01)
- Administrators (WIN10-LEGO-S201\Administrators)

Permissions for SYSTEM

Permissions for SYSTEM	Allow	Deny
Full control	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Modify	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Read & execute	<input checked="" type="checkbox"/>	<input type="checkbox"/>
List folder contents	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Read	<input checked="" type="checkbox"/>	<input type="checkbox"/>

OK Cancel

The presentation selects "Add".



Documents

File Home Share View

This PC > Documents

Name	Date modified	Type	Size
data01	10/25/2019 4:25 PM	File folder	
data02			
ev3dev			
grading			
LEGO C...			
notepad			
program			
python			
2ram_lis			
cpu_list			
ram_list			
scp_all.b			
Software			

data01 Properties

General Sharing Security Previous Versions Customize

Permissions for data01

Select Users or Groups

Select this object type:
Users, Groups, or Built-in security principals

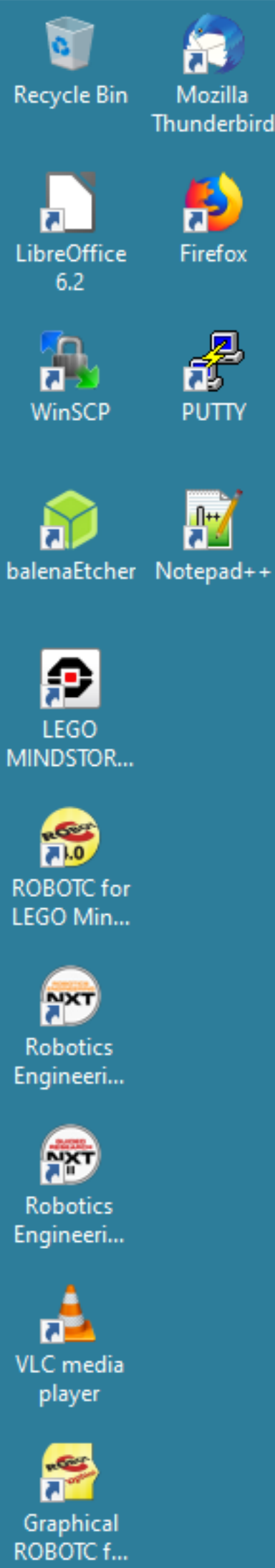
From this location:
WIN10-LEGO-S201

Enter the object names to select (examples):
WIN10-LEGO-S201\albatross01

Full control
 Modify
 Read & execute
 List folder contents
 Read

The presentation enters "albatross01" and selects "check names".

The presentation selects "OK" to continue.



Documents

File Home Share View

This PC > Documents

Name	Date modified	Type	Size
data01	10/25/2019 4:25 PM	File folder	
data02			
ev3dev			
grading			
LEGO C...			
notepad			
program			
python			
2ram_lis			
cpu_list			
ram_list			
scp_all.b			
Software			

13 items | 1 item selected

data01 Properties

General Sharing Security Previous Versions Customize

Permissions for data01

Select Users or Groups

Select this object type:
Users, Groups, or Built-in security principals

From this location:
WIN10-LEGO-S201

Enter the object names to select (examples):
albatross02

Check Names

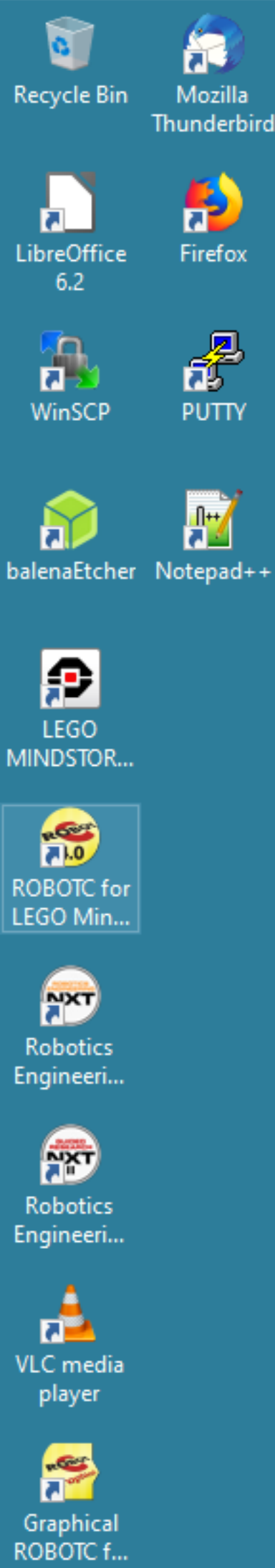
Advanced... OK Cancel

Full control	<input type="checkbox"/>	<input type="checkbox"/>
Modify	<input type="checkbox"/>	<input type="checkbox"/>
Read & execute	<input checked="" type="checkbox"/>	<input type="checkbox"/>
List folder contents	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Read	<input checked="" type="checkbox"/>	<input type="checkbox"/>

OK Cancel Apply

The presentation enters "albatross02" and selects "check names".

The presentation selects "OK" to continue.



Documents

File Home Share View

This PC > Documents

Name	Date modified	Type	Size
data01	10/25/2019 4:25 PM	File folder	
data02			
ev3dev			
grading			
LEGO C...			
notepad			
program			
python			
2ram_lis			
cpu_list			
ram_list			
scp_all.b			
Software			

data01 Properties

General Sharing Security Previous Versions Customize

Permissions for data01

Object name: C:\Users\student01\Documents\data01

Group or user names:

- albatross01 (WIN10-LEGO-S201\albatross01)
- albatross02 (WIN10-LEGO-S201\albatross02)
- SYSTEM
- student01 (WIN10-LEGO-S201\student01)
- Administrators (WIN10-LEGO-S201\Administrators)

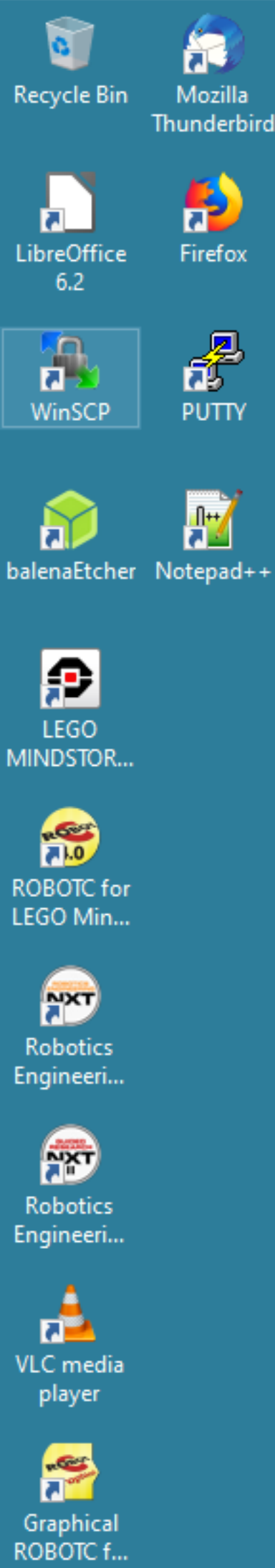
Permissions for albatross01

	Allow	Deny
Modify	<input type="checkbox"/>	<input type="checkbox"/>
Read & execute	<input checked="" type="checkbox"/>	<input type="checkbox"/>
List folder contents	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Read	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Write	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Special permissions	<input type="checkbox"/>	<input type="checkbox"/>

OK Cancel Apply

The presentation set the NTFS permission for albatross01 as read and write.

The presentation selects "OK" to continue.



Documents

File Home Share View

This PC > Documents

Name	Date modified	Type	Size
data01	10/25/2019 4:25 PM	File folder	
data02	10/25/2019 4:25 PM	File folder	
data03	10/25/2019 4:02 PM	File folder	
data04	10/25/2019 12:24 AM	File folder	
data05	10/25/2019 12:34 PM	File folder	
data06	10/25/2019 12:56 PM	File folder	
data07	10/25/2019 12:07 PM	File folder	
data08	10/25/2019 12:11 PM	File folder	
data09	10/25/2019 12:23 PM	Text document	
data10	10/25/2019 12:19 PM	Text document	
data11	10/25/2019 12:20 PM	Text document	
data12	10/25/2019 12:43 PM	Windows application	
data13	10/25/2019 12:43 PM	Windows application	

13 items | 1 item selected

- Open
- Open in new window
- Pin to Quick access
- Add to VLC media player's Playlist
- Play with VLC media player
- 7-Zip
- CRC SHA
- Scan with Windows Defender...
- Give access to
- Restore previous versions
- Include in library
- Pin to Start
- Send to
- Cut
- Copy
- Create shortcut
- Delete
- Rename
- Properties

The presentation right clicks on the "data01" folder to get this menu.

The presentation selects the "Properties" option.

- Recycle Bin
- Mozilla Thunderbird
- LibreOffice 6.2
- Firefox
- WinSCP
- PUTTY
- balenaEtcher
- Notepad++
- LEGO MINDSTOR...
- ROBOTC for LEGO Min...
- Robotics Engineeri...
- Robotics Engineeri...
- VLC media player
- Graphical ROBOTC f...

Documents

File Home Share View

This PC > Documents

Name	Date modified	Type	Size
data01	10/25/2019 4:25 PM	File folder	

data01 Properties

General Sharing

Network File and Folder Sharing

data01 Not Shared

Network Path: Not Shared

Share...

Advanced Sharing

Set custom permissions, create advanced sharing options.

Advanced Sharing...

Password Protection

People must have a user account and password for this computer to access shared folders.

To change this setting, use the [Network and Sharing Center](#).

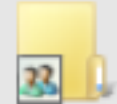
OK Cancel Apply

13 items | 1 item selected

The presentation selects the "Sharing" tab.

User Account Control

Do you want to allow this app to make changes to your device?

 Windows File Sharing

Verified publisher: Microsoft Windows

Show more details

To continue, enter an admin user name and password.

Student

WIN10-LEGO-S201\Student

Yes No

The presentation provides the administration password.

Recycle Bin Mozilla Thunderbird

LibreOffice 6.2 Firefox

WinSCP PUTTY

balenaEtcher Notepad++

LEGO MINDSTOR...

ROBOTC for LEGO Min...

Robotics Engineeri...

Robotics Engineeri...

VLC media player

Graphical ROBOTC f...

Documents

File Home Share View

This PC > Documents

Name	Date modified	Type	Size
data01	10/25/2019 4:25 PM	File folder	

data01 Properties

Advanced Sharing

Share this folder

Settings

Share name: data01

Limit the number of simultaneous connections to: []

Comments:

Permissions Caching

OK Cancel Apply

The presentation puts a check in "Share this folder".

The presentation does not change the share name.

The presentation selects "Permissions" to continue.

13 items | 1 item selected

Recycle Bin Mozilla Thunderbird

LibreOffice 6.2 Firefox

WinSCP PUTTY

balenaEtcher Notepad++

LEGO MINDSTOR...

ROBOTC for LEGO Min...

Robotics Engineeri...

Robotics Engineeri...

VLC media player

Graphical ROBOTC f...

Documents

File Home Share View

This PC > Documents >

Name	Date modified	Type	Size
data01	10/25/2019 4:35 PM	File folder	

data01 Properties

Advanced Sharing

Permissions for data01

Share Permissions

Group or user names:

- Administrators (WIN10-LEGO-S201\Administrators)
- albatross01 (WIN10-LEGO-S201\albatross01)
- albatross02 (WIN10-LEGO-S201\albatross02)
- Everyone

Add... Remove

Permissions for Administrators	Allow	Deny
Full Control	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Change	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Read	<input checked="" type="checkbox"/>	<input type="checkbox"/>

OK Cancel Apply

The presentation adds the group and logons as shown. The presentation sets the share permissions appropriately.

The presentation selects "OK" to finish.

- Recycle Bin
- Mozilla Thunderbird
- LibreOffice 6.2
- Firefox
- WinSCP
- PUTTY
- balenaEtcher
- Notepad++
- LEGO MINDSTOR...
- ROBOTC for LEGO Min...
- Robotics Engineeri...
- Robotics Engineeri...
- VLC media player
- Graphical ROBOTC f...

Documents

File Home Share View

This PC > Documents >

Name	Date modified	Type	Size
data01	10/25/2019 4:35 PM	File folder	
data01 Properties		folder	
ev...		folder	
gra		folder	
LE		folder	
no		folder	
pro		folder	
py		folder	
2ra		t Document	1 KB
cp		t Document	3 KB
ran		t Document	2 KB
sc		indows Batch File	2 KB
So		indows PowerS...	1 KB

data01 Properties

Advanced Sharing

Share this folder

Settings

Share name: data01

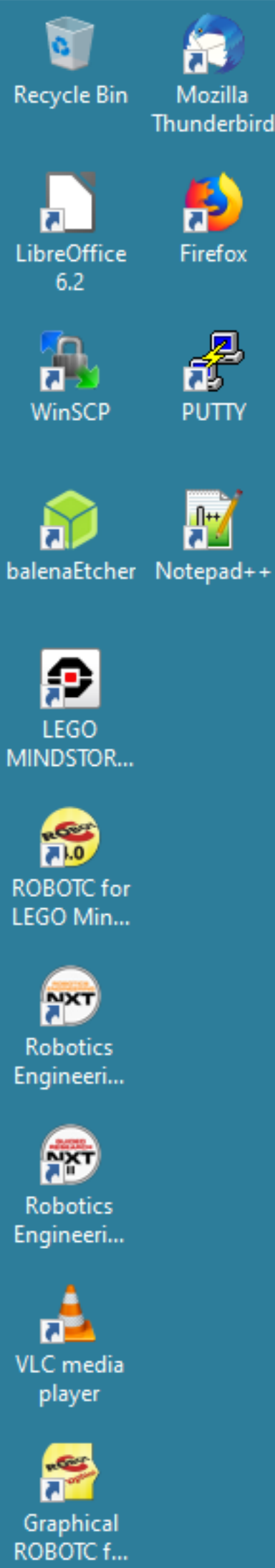
Limit the number of simultaneous users to: 20

Comments:

Permissions Caching

OK

The presentation selects "OK" to continue.



Documents

File Home Share View

This PC > Documents >

Name	Date modified	Type	Size
data01	10/25/2019 4:25 PM	Folder	
data02		Folder	
ev...		Folder	
gra...		Folder	
LE...		Folder	
no...		Folder	
pro...		Folder	
py...		Folder	
2ra...		Folder	
cp...		Folder	
ran...		Folder	
sc...		Folder	
So...		Folder	

data01 Properties

General Sharing Security Previous Versions Customize

Network File and Folder Sharing

data01 Shared

Network Path: \\WIN10-LEGO-S201\data01

Share...

Advanced Sharing

Set custom permissions, create multiple shares, and choose advanced sharing options.

Advanced Sharing...

Password Protection

People must have a user account and password on this computer to access shared folders.

To change this setting, use the [Network and Sharing Center](#).

Close Cancel Apply

This is the UNC for the share. The presentation documents this fact.

The presentation selects "Close" to continue.

The presentation repeats this operation for the data02 folder.

13 items | 1 item selected

- Recycle Bin
- Mozilla Thunderbird
- LibreOffice 6.2
- Firefox
- WinSCP
- PUTTY
- balenaEtcher
- Notepad+
- LEGO MINDSTOR...
- ROBOTC for LEGO Min...
- Robotics Engineeri...
- Robotics Engineeri...
- VLC media player
- Graphical ROBOTC f...

```
Microsoft Windows [Version 10.0.18362.449]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\student01>ipconfig

Windows IP Configuration

Ethernet adapter Ethernet0:

    Connection-specific DNS Suffix  . : localdomain
    Link-local IPv6 Address . . . . . : fe80::fcff:5805:7daa:7474%13
    IPv4 Address. . . . . : 192.168.74.137
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.74.2

C:\Users\student01>
```

The presentation documents the Windows 10 IPv4 address.



Home



Trash



CentOS 7 x86_64

The presentation logs into CentOS 7.





Home



Trash



CentOS 7 x86_64

```
preuss@red-vm:~  
File Edit View Search Terminal Help  
[preuss@red-vm ~]$ ping -c 4 192.168.74.137  
PING 192.168.74.137 (192.168.74.137) 56(84) bytes of data.  
64 bytes from 192.168.74.137: icmp_seq=1 ttl=128 time=0.675 ms  
64 bytes from 192.168.74.137: icmp_seq=2 ttl=128 time=0.413 ms  
64 bytes from 192.168.74.137: icmp_seq=3 ttl=128 time=0.386 ms  
64 bytes from 192.168.74.137: icmp_seq=4 ttl=128 time=0.405 ms  
  
--- 192.168.74.137 ping statistics ---  
4 packets transmitted, 4 received, 0% packet loss, time 3001ms  
rtt min/avg/max/mdev = 0.386/0.469/0.675/0.121 ms  
[preuss@red-vm ~]$
```

The presentation pings the Windows 10 machine. This must be successful to continue.





Home



Trash



CentOS 7 x86_64

```
preuss@red-vm:/home/preuss
File Edit View Search Terminal Help
[root@red-vm preuss]# ls /mnt/
hgfs
[root@red-vm preuss]#
```

The presentation, now as "root", checks the contents of /mnt/.





Home



Trash



CentOS 7 x86_64

preuss@red-vm:/home/preuss

File Edit View Search Terminal Help

```
[root@red-vm preuss]# ls /mnt/  
hgfs  
[root@red-vm preuss]# mkdir /mnt/data01  
[root@red-vm preuss]# mkdir /mnt/data02  
[root@red-vm preuss]# ls /mnt/  
data01 data02 hgfs  
[root@red-vm preuss]#
```

The presentation creates two mount points also known as folders in CentOS7.



7
CENTOS



Home



Trash



CentOS 7 x86_64

```
preuss@red-vm:/home/preuss
File Edit View Search Terminal Help
[root@red-vm preuss]# mount -t cifs -o vers=2.0,sec=ntlmv2,username=albatross01 //192.168.74.137/data01 /mnt/data01
```

The presentation issues the mount command as shown to connect to the Windows 10 share data01.





Home



Trash



CentOS 7 x86_64

```
preuss@red-vm:/home/preuss
File Edit View Search Terminal Help
[root@red-vm preuss]# mount -t cifs -o vers=2.0,sec=ntlmv2,username=albatross01 //192.168.74.137/data01 /mnt/data01
Password for albatross01@//192.168.74.137/data01:
```

The presentation provides the password for the albatross01 account on the Windows 10.





Home



Trash



CentOS 7 x86_64

```

preuss@red-vm:/home/preuss
File Edit View Search Terminal Help
[root@red-vm preuss]# mount -t cifs -o vers=2.0,sec=ntlmv2,username=albatross01 //192.168.74.137/data01 /mnt/data01
Password for albatross01@//192.168.74.137/data01: *****
[root@red-vm preuss]# ls /mnt/data01
data01.txt
[root@red-vm preuss]# █

```

The presentation checks the connection. The presentation sees in /mnt/data01 a file on the Windows 10 share data01. This is a successful mount.





```
preuss@red-vm:/home/preuss
File Edit View Search Terminal Help
[root@red-vm preuss]# mount -t cifs -o vers=2.0,sec=ntlmv2,username=albatross01 //192.168.74.137/data01 /mnt/data01
Password for albatross01@//192.168.74.137/data01: *****
[root@red-vm preuss]# ls /mnt/data01
data01.txt
[root@red-vm preuss]# umount //192.168.74.137/data01
```

The presentation issues the command to unmount the share as shown.





```
preuss@red-vm:/home/preuss
File Edit View Search Terminal Help
[root@red-vm preuss]# mount -t cifs -o vers=2.0,sec=ntlmv2,username=albatross01 //192.168.74.137/data01 /mnt/data01
Password for albatross01@//192.168.74.137/data01: *****
[root@red-vm preuss]# ls /mnt/data01
data01.txt
[root@red-vm preuss]# umount //192.168.74.137/data01
[root@red-vm preuss]# ls /mnt/data01
[root@red-vm preuss]#
```

The share data01 is no longer mounted.



cifs_test.sh * SciTE

File Edit Search View Tools Options Language Buffers Help

1 cifs_test.sh *

```
#!/bin/bash

- # This script will mount two different cifs shares on a Windows machine.
# The script attempt to read and write a file on each share
# www.ss64.com and several web sites dealing with smb update
# Preuss 10/25/2019

# Note: This script must be run as root !

# This section mounts two different shares as two different logons
mount -t cifs -o vers=2.0,sec=ntlmv2,username=albatross01 //192.168.74.137/data01 /mnt/data01

# This section tries reading and writing a file on the share.
cat /mnt/data01/data01.txt
echo "This is the output of data01.txt using Albatross01 logon." >> /home/preuss/cifs_rpt01.txt
cat /mnt/data01/data01.txt >> /home/preuss/cifs_rpt01.txt

echo "This is new data from red_vm." >> /mnt/data01.txt
echo "This is the output of data01.txt using Albatross01 logon. This should be modified from red_vm" >> /home/preuss/cifs_rpt01.txt
cat /mnt/data01/data01.txt >> /home/preuss/cifs_rpt01.txt

# This will unmount the drives
umount //192.168.74.137/data01

# You may now mount the second share
```

The presentation creates the script shown to automate testing the share and NTFS permissions.

preuss@red-vm:/home/preuss

File Edit View Search Terminal Help

```
[root@red-vm preuss]# ls
cifs_test.sh Desktop Downloads happy_file.txt judly.txt output Public script01.sh Templates
data01.txt Documents ending01.sh happy_judly.txt Music Pictures report_some.txt smb.txt Videos
[root@red-vm preuss]# chmod 740 cifs_test.sh
[root@red-vm preuss]#
```

The presentation makes the script executable as shown.

preuss@red-vm:/home/preuss

File Edit View Search Terminal Help

```
[root@red-vm preuss]# ls
cifs_test.sh  Desktop  Downloads  happy_file.txt  judly.txt  output  Public  script01.sh  Templates
data01.txt   Documents ending01.sh  happy_judly.txt Music      Pictures report_some.txt smb.txt  Videos
[root@red-vm preuss]# chmod 740 cifs_test.sh
[root@red-vm preuss]# ./cifs_test.sh
```

The presentation runs the script as shown.

CentO

preuss@red-vm:/home/preuss

File Edit View Search Terminal Help

```
[root@red-vm preuss]# ls
cifs_test.sh Desktop Downloads happy_file.txt judly.txt output Public script01.sh Templates
data01.txt Documents ending01.sh happy_judly.txt Music Pictures report_some.txt smb.txt Videos
[root@red-vm preuss]# chmod 740 cifs_test.sh
[root@red-vm preuss]# ./cifs_test.sh
Password for albatross01@//192.168.74.137/data01: █
```

The presentation provides the albatross01 password to allow the script to continue.

preuss@red-vm:/home/preuss

File Edit View Search Terminal Help

```
[root@red-vm preuss]# ls
cifs_test.sh Desktop Downloads happy_file.txt judly.txt output Public script01.sh smb.txt Videos
data01.txt Documents ending01.sh happy_judly.txt Music Pictures report_some.txt silly.txt Templates
[root@red-vm preuss]# chmod 740 cifs_test.sh
[root@red-vm preuss]# ./cifs_test.sh
Password for albatross01@//192.168.74.137/data01: *****
This is the data01 test document.[root@red-vm preuss]# ls
cifs_rpt01.txt data01.txt Documents ending01.sh happy_judly.txt Music Pictures report_some.txt silly.txt Templates
cifs_test.sh Desktop Downloads happy_file.txt judly.txt output Public script01.sh smb.txt Videos
[root@red-vm preuss]# less cifs_rpt01.txt
```

The presentation reviews the results as shown.