Advanced shell Scripting and Computer Environment - Lecture 4

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Contents

1 Advanced Shell

- Working remotely
- Redirection and Processes
- Miscellaneous



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Working remotely Redirection and Processes Miscellaneous

Working remotely





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Working remotely Redirection and Processes Miscellaneous

Working remotely

- ssh
- scp



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Working remotely Redirection and Processes Miscellaneous

Working remotely

- ssh
- scp
- rsync



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___>

Working remotely

- ssh
- scp
- rsync
- passwd



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Working remotely

- ssh
- scp
- rsync
- passwd
- Winscp (Windows based)



Working remotely

- ssh
- scp
- rsync
- passwd
- Winscp (Windows based)
- Putty (Windows based)



Working remotely

- ssh
- scp
- rsync
- passwd
- Winscp (Windows based)
- Putty (Windows based)
- SSH Secure Shell client (Windows based)



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___>

Working remotely

- ssh
- scp
- rsync
- passwd
- Winscp (Windows based)
- Putty (Windows based)
- SSH Secure Shell client (Windows based)
- XManager (Windows based)



___>

Redirection

 $\bullet \ > \rightarrow$ Send output to file



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Redirection

- ${\scriptstyle \bullet } > \rightarrow$ Send output to file
- $\bullet \ < \rightarrow$ Take input from file



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- $\bullet \ > \rightarrow \ {\rm Send} \ {\rm output} \ {\rm to} \ {\rm file}$
- $\bullet \ < \rightarrow \ {\sf Take \ input \ from \ file}$
- $\bullet \ 2 > \rightarrow$ Send error output to file



- $\bullet \ > \rightarrow \ {\rm Send} \ {\rm output} \ {\rm to} \ {\rm file}$
- $\bullet \ < \rightarrow \ {\sf Take \ input \ from \ file}$
- $\bullet \ 2 > \rightarrow$ Send error output to file
- $\bullet \ >> \to \mbox{Append}$ output to file



- $\bullet \ > \rightarrow \ {\rm Send} \ {\rm output} \ {\rm to} \ {\rm file}$
- $\bullet \ < \rightarrow$ Take input from file
- $2 > \rightarrow$ Send error output to file
- $\bullet >> \to \mathsf{Append}$ output to file
- $\bullet~| \rightarrow$ Send output to program as input



- $\bullet \ > \rightarrow \ {\rm Send} \ {\rm output} \ {\rm to} \ {\rm file}$
- $\bullet \ < \ \rightarrow \ {\sf Take \ input \ from \ file}$
- $2 > \rightarrow$ Send error output to file
- $\bullet >> \to \mathsf{Append}$ output to file
- $\bullet~| \rightarrow$ Send output to program as input
- \bullet ' ' \rightarrow Use command output as argument



- $\bullet \ > \rightarrow \ {\sf Send} \ {\sf output} \ {\sf to} \ {\sf file}$
- $\bullet \ < \ \rightarrow \ {\sf Take \ input \ from \ file}$
- $2 > \rightarrow$ Send error output to file
- $\bullet >> \to \mathsf{Append}$ output to file
- $\bullet~| \rightarrow$ Send output to program as input
- \bullet ' ' \rightarrow Use command output as argument
- $\bullet \ tee \rightarrow$ Print as well as send to file



- $\bullet \ > \rightarrow \ {\sf Send} \ {\sf output} \ {\sf to} \ {\sf file}$
- $\bullet \ < \ \rightarrow \ {\sf Take \ input \ from \ file}$
- $2 > \rightarrow$ Send error output to file
- $\bullet \ >> \to \ \mathsf{Append} \ \mathsf{output} \ \mathsf{to} \ \mathsf{file}$
- $\bullet~| \rightarrow$ Send output to program as input
- \bullet ' ' \rightarrow Use command output as argument
- $\bullet~tee$ \rightarrow Print as well as send to file
- $tail f \rightarrow Print$ file contents till Ctrl+C



	Advanced Shell	Working remotely Redirection and Processes Miscellaneous
Processes		

• Ctrl + Z



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	Advanced Shell	Working remotely Redirection and Processes Miscellaneous
Processes		

• Ctrl + Z

• fg



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Processes

- Ctrl + Z
- fg
- jobs



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< D > < B >

Processes

- Ctrl + Z
- fg
- jobs
- bg



< D > < B >

Processes

- Ctrl + Z
- fg
- jobs
- bg
- ps



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Processes

- Ctrl + Z
- fg
- jobs
- bg
- ps
- \$ 0



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Processes

- Ctrl + Z
- fg
- jobs
- bg
- ps
- s 🍳
- •;



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Processes

- Ctrl + Z
- fg
- jobs
- bg
- ps
- \$ @
- •;
- Ctrl + C



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Advanced Shell Redirection and Processes Miscellaneous	Advanced Shell	
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Processes

- Ctrl + Z
- fg
- jobs
- bg
- ps
- s 🎱
- •;
- Ctrl + C
- kill



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Advanced Shell Redirection and Processes Miscellaneous	Advanced Shell	
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Processes

- Ctrl + Z
- fg
- jobs
- bg
- ps
- s 🎱
- •;
- Ctrl + C
- kill
- killall



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Working remotely Redirection and Processes Miscellaneous

Command line features

• Shell wildcards '*', '?' and '[]'



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Command line features

- Shell wildcards '*', '?' and '[]'
- !<command> \rightarrow Run last command with same program name



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Command line features

- Shell wildcards '*', '?' and '[]'
- !<command> \rightarrow Run last command with same program name
- echo \$? \rightarrow Return value of last command



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Command line features

- Shell wildcards '*', '?' and '[]'
- !<command> \rightarrow Run last command with same program name
- echo \$? \rightarrow Return value of last command
- Ctrl + R \rightarrow Reverse incremental search



Image: A matrix

Command line features

- Shell wildcards '*', '?' and '[]'
- !<command> \rightarrow Run last command with same program name
- echo \$? \rightarrow Return value of last command
- Ctrl + R \rightarrow Reverse incremental search
- history



Image: A matrix

Environment variables

• set



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Environment variables

- set
- export



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Environment variables

- set
- export
- echo



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		Working remotely		
Advanced	Shell	Redirection and Process		
		Miscellaneous		

Environment variables

- set
- export
- echo
- alias



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Advanced	Shell	

Environment variables

- set
- export
- echo
- alias
- unalias



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Environment variables

- set
- export
- echo
- alias
- unalias
- Important variables
 - PATH



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Environment variables

- set
- export
- echo
- alias
- unalias
- Important variables
 - PATH
 - PWD



Environment variables

- set
- export
- echo
- alias
- unalias
- Important variables
 - PATH
 - PWD
 - HISTTIMEFORMAT='%y %m %d %T '



Environment variables

- set
- export
- echo
- alias
- unalias
- Important variables
 - PATH
 - PWD
 - HISTTIMEFORMAT='%y %m %d %T '
 - PS1

