#### Last updated 2/13/23

These slides introduce compiling C in the command line

- C can be compiled from the command line
  - Modify the locations Windows searches when executing C programs
    - Only do this once
    - Enter environment variables in the Windows search box
    - Select Edit the system environment variables
    - In System Properties select Environment Variables

		System Properties	×	Environment Variables	
All Apps Documents Settings More 🕶	J) X	Computer Name Hardware Advanced System Protect	ction Remote	User variables for johnsontimoj	
Red match		You must be logged on as an Administrator to make mo	st of these changes	Variable	Value
Best match		Tou make hogged on as an Administrator to make mo	at of these changes.	OneDrive	C:\Users\johnsontimoj\OneDrive - Milwaukee School of Engineering
Edit the system environment		Performance		OneDriveCommercial	C:\Users\johnsontimoj\OneDrive - Milwaukee School of Engineering
Control panel	~	Visual effects, processor scheduling, memory usage, a	nd virtual memory	Path	C:\Users\johnsontimoj\AppData\Local\Microsoft\WindowsApps;C:
	Edit the system environment variables			TEMP	C:\Users\johnsontimoj\AppData\Local\Temp
Setting	Control panel		Settings	IMP	C:\Users\johnsontimoj\AppData\Local\lemp
Edit environment variables for your account					
	Di Oran	User Profiles			
		Desktop settings related to your sign-in			New Edit Delete
			Settings	System variables	
				Variable	Value
		Startup and Recovery		_PSLockDownPolicy	0
		System startup, system failure, and debugging informat	ion	ComSpec	C:\WINDOWS\system32\cmd.exe
				DriverData	C:\Windows\System32\Drivers\DriverData
			Settings	KMP_DUPLICATE_LIB_OK	TRUE
			ootango		YES C:\Program Filer (x86)\National Instruments\Shared\ExternalComni
				NUMBER OF PROCESSORS	8
		Envi	ronment Variables		
					New Edit Delete
		OK Car	Apply		OK Cancel
	A Designed and the second of a	and the second se			
		Continued			
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1601					

- C can be compiled from the command line
  - Modify the locations Windows searches when executing C programs cont'd
    - Scroll down in the System variables section to path
    - Highlight path and select Edit
    - Select New
    - Type in C:\MinGW\bin
    - Ok out of all the windows

Variable	Value		
OneDrive	C:\Users\johnsontimoj\OneDrive -	- Milwaukee School of	Engineering
OneDriveCommercial	C:\Users\johnsontimoj\OneDrive -	Milwaukee School of	Engineering
Path	C:\Users\johnsontimoj\AppData\L	.ocal\Microsoft\Windo	owsApps;C:
TEMP	C:\Users\johnsontimoj\AppData\L	.ocal\Temp	
TMP	C:\Users\johnsontimoj\AppData\L	.ocal\Temp	
stem variables	New	Edit	Delete
stem variables	New	Edit	Delete
stem variables Variable	New Value	Edit	Delete
stem variables Variable NUMBER_OF_PROCESSORS OS	Value 8 Windows NT	Edit	Delete
stem variables Variable NUMBER_OF_PROCESSORS OS Path	Value 8 Windows_NT C:\Program Files\Eclipse Foundati	Edit	Delete
stem variables Variable NUMBER_OF_PROCESSORS OS Path	Value 8 Windows, NT C\Program Files\Eclipse Foundati .COM;:CXE;:BAT; CMD; VBS;;VBE;JS	Edit on\jdk-8.0.302.8-hots 5; JSE; WSF; WSH; MSC	Delete
stem variables Variable NUMBER_OF_PROCESSORS OS Path PROCESSOR_ARCHITECTURE	Value 8 Windows,NT C:\Program File\Sclipse Foundati .cOM;EXE;8AT;CMD;VBS;VBE;J: AMD64	Edit on\jdk-8.0.302.8-hotsp ;; JSE; WSF; WSF; MSC	Delete
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C:\Program Files\Eclipse Foundation\jdk-8.0.302.8-hotspot\bin	New
C:\WINDOWS\system32	
C:\WINDOWS	Edit
C:\WINDOWS\System32\Wbem	
C:\WINDOWS\System32\WindowsPowerShell\v1.0\	Browse
C:\Program Files\dotnet\	
C:\Program Files\PuTTY\	Delete
C:\Program Files,MATLAB\R2022a\bin	
C:\MinGW\bin	
	Move Up
	Move Down
	Edit text

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- Compile and run code
  - 1. Create your code file
    - Notepad, notepad++, ...
    - Do not use office tools like Word or PowerPoint
  - 2. Open a cmd prompt window
    - Windows Key + R
    - Type in cmd and click OK

🖅 Run		×	
Type the name of a progra	m, folder, docum	ient, or Internet	
	n open in for you.	·	E
Optin: cmd		~	
ОК	Cancel	<u>B</u> rowse	
OK	cancer	Drowsen	

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C:\WINDOWS\system32\cmd.exe	-	×
Microsoft Windows [Version 10.0.19044.2486] (c) Microsoft Corporation, All rights reserved.		^
C:\Users\johnsontimoj>		
		~

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- Compile and run code
  - 3. Navigate to your code directory
    - Use cd folder name to traverse the directories (folders)
    - Make sure your file is there using dir

C:\WINDOWS\system32\cmd.exe	_	×
Microsoft Windows [Version 10.0.19044.2486] (c) Microsoft Corporation. All rights reserved.		î
C:\Users\johnsontime_>cd ELE1601_Code		
C:\Users\johnsontimoj\ELE1601_Cote>cd Project_ABC		
C:\Users\johnsontimoj\ELE1601_Code\Project_AB&dir Volume in drive C is Windows Volume Serial Number is DC76-D36C		
Directory of C:\Users\johnsontimoj\ELE1601_Code\Project_ABC		
02/13/2023 07:49 AM <dir> . 02/13/2023 07:49 AM <dir> . 02/13/2023 07:49 AM 300 hello.c 1 File(s) 300 bytes 2 Dir(s) 238,545,035,264 bytes free</dir></dir>		
C:\Users\johnsontimoj\ELE1601_Code\Project_ABC>_		

- Compile and run code
  - 4. Type gcc code\_file\_name -o output\_file\_name
    - Here code file is hello.c and output file is hello
    - A file called output\_file\_name.exe is created (hello.exe)

C:\Users\john	sontimoi\ELE1601 Codexcd Project ABC	
e. (oser s (john		
C:\Users\john	sontimoj\ELE1601_Code\Project_ABC>dir	
Volume in dr	ive C is Windows	
Volume Seria	l Number is DC76-D36C	
Directory of	C:\Users\johnsontimoj\ELE1601_Code\Project_ABC	
02/13/2023 0	17:49 AM <dir></dir>	
02/13/2023 0	//:49 AM	
02/15/2025 0	1 File(s) 300 Herror	
	2 Dir(s) 238.512.623.616 bytes free	
C:\Users\john	sontimoj\ELE1601_Code\Project_AB <mark>i</mark> gcc hello.c -o hello	
Volume in dr	SUNTINO ( LE 100 L COUR ( PROJECT ABOUT)	
Volume Seria	Number is DC76-D36C	
Directory of	<pre>C:\Users\johnsontimoj\ELE1601_Code\Project_ABC</pre>	
02/12/2022 0		
02/13/2023 0		
02/13/2023 0	7:49 AM 300 hello c	
02/13/2023 0	18:21 AM 40,76 hello.exe	
	2 File(s) 41,066 byces	
	2 Dir(s) 238,498,648,064 bytes free	

- Compile and run code
  - 5. Type output\_file\_name to run your code

Command Prompt	_	$\times$
:\Users\johnsontimoj\ELE1601_Code\Project_ABC>dir Volume in drive C is Windows Volume Serial Number is DC76-D36C		
Directory of C:\Users\johnsontimoj\ELE1601 Code\Project ARC		
2/13/2023 0/:49 AM <01K> .		
2/13/2023 07.49 AM 101R/		
1 File(s) 300 bytes		
2 Dir(s) 238.512.623.616 bytes free		
:\Users\johnsontimoj\ELE1601_Code\Project_ABC>gcc hello.c -o hello :\Users\johnsontimoj\ELE1601_Code\Project_ABC>dir Volume in drive C is Windows Volume Serial Number is DC76-D36C Directory of C:\Users\johnsontimoj\ELE1601_Code\Project_ABC		
2/13/2023 08:21 AM <dir> .</dir>		
2/13/2023 08:21 AM <dir></dir>		
2/13/2023 07:49 AM 300 hello.c		
2/13/2023 08:21 AM 40,766 hello.exe		
2 File(s) 41,066 bytes		
2 Dir(s) 238,498,648,064 bytes free		
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