

Elementi di Programmazione: Esercitazione 1

Installazione MinGW: "Minimalist GNU for Windows"

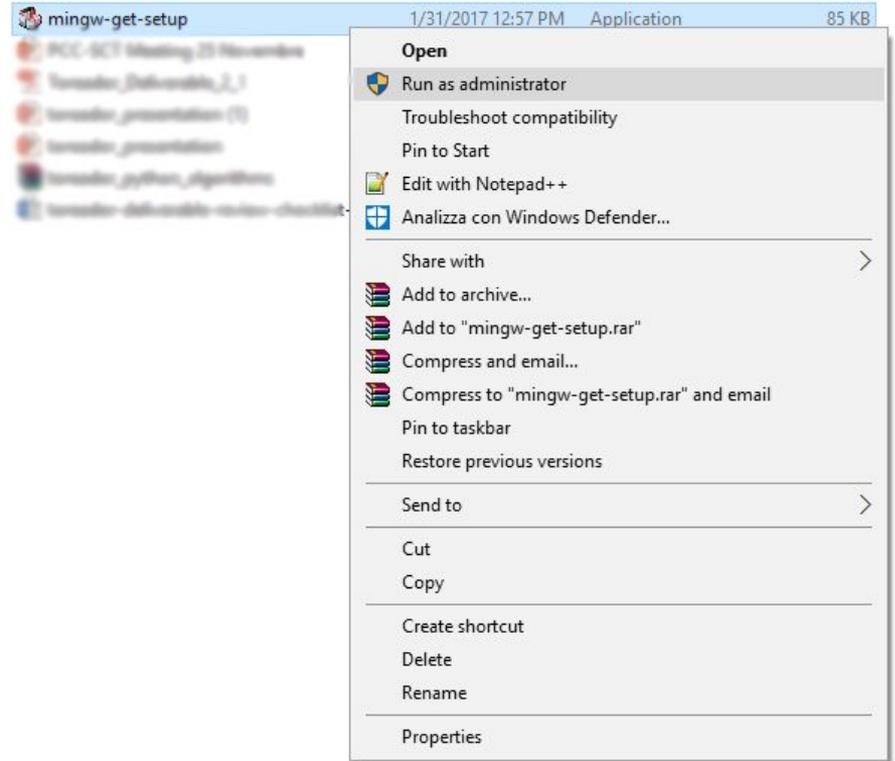
MinGW includes:

- A port of the GNU Compiler Collection (GCC), including C, C++, ADA and Fortran compilers;
- GNU Binutils for Windows (assembler, linker, archive manager)
- A command-line installer, with optional GUI front-end, (mingw-get) for MinGW and MSYS deployment on MS-Windows
- A GUI first-time setup tool (mingw-get-setup), to get you up and running with mingw-get.

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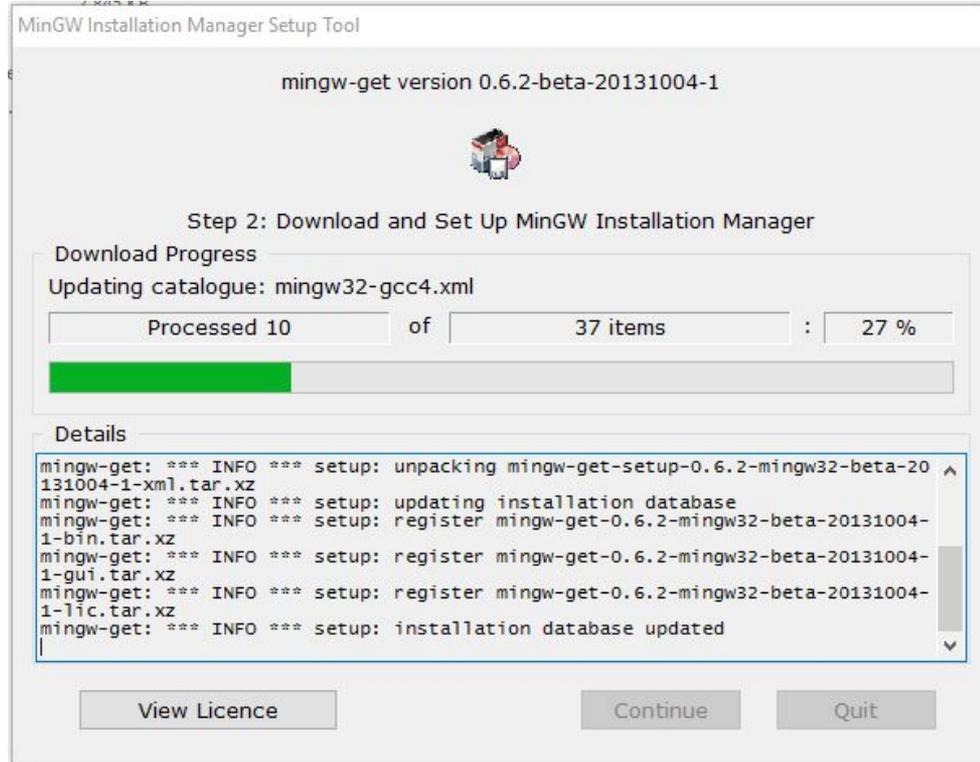
Scarichiamo il file d'installazione da qui e lo eseguiamo come amministratore di sistema:

<http://sourceforge.net/projects/mingw/files/latest/download?source=files>



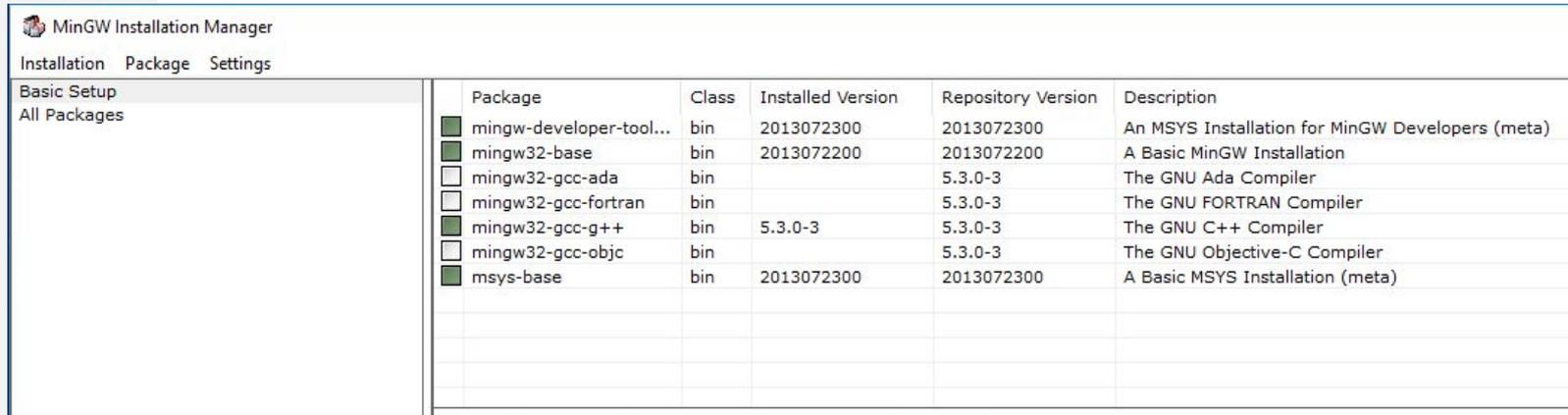
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Si procede con l'installazione del gestore dei moduli e relativi compilatori



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Avviamo l' "Installation Manager" e selezioniamo i moduli che vogliamo installare:

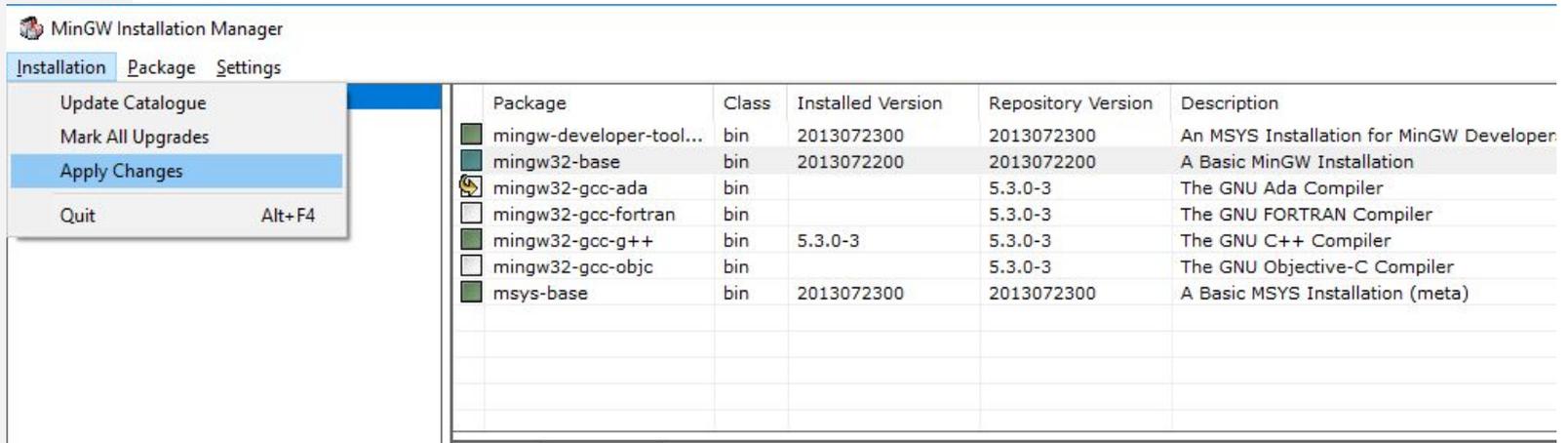


The screenshot shows the MinGW Installation Manager interface. The window title is "MinGW Installation Manager". Below the title bar, there are three tabs: "Installation", "Package", and "Settings". The "Installation" tab is active, showing a list of packages. On the left side, there are two buttons: "Basic Setup" and "All Packages". The main area contains a table with the following columns: Package, Class, Installed Version, Repository Version, and Description.

Package	Class	Installed Version	Repository Version	Description
<input checked="" type="checkbox"/> mingw-developer-tool...	bin	2013072300	2013072300	An MSYS Installation for MinGW Developers (meta)
<input checked="" type="checkbox"/> mingw32-base	bin	2013072200	2013072200	A Basic MinGW Installation
<input type="checkbox"/> mingw32-gcc-ada	bin		5.3.0-3	The GNU Ada Compiler
<input type="checkbox"/> mingw32-gcc-fortran	bin		5.3.0-3	The GNU FORTRAN Compiler
<input checked="" type="checkbox"/> mingw32-gcc-g++	bin	5.3.0-3	5.3.0-3	The GNU C++ Compiler
<input type="checkbox"/> mingw32-gcc-objc	bin		5.3.0-3	The GNU Objective-C Compiler
<input checked="" type="checkbox"/> msys-base	bin	2013072300	2013072300	A Basic MSYS Installation (meta)

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Applichiamo le modifiche:

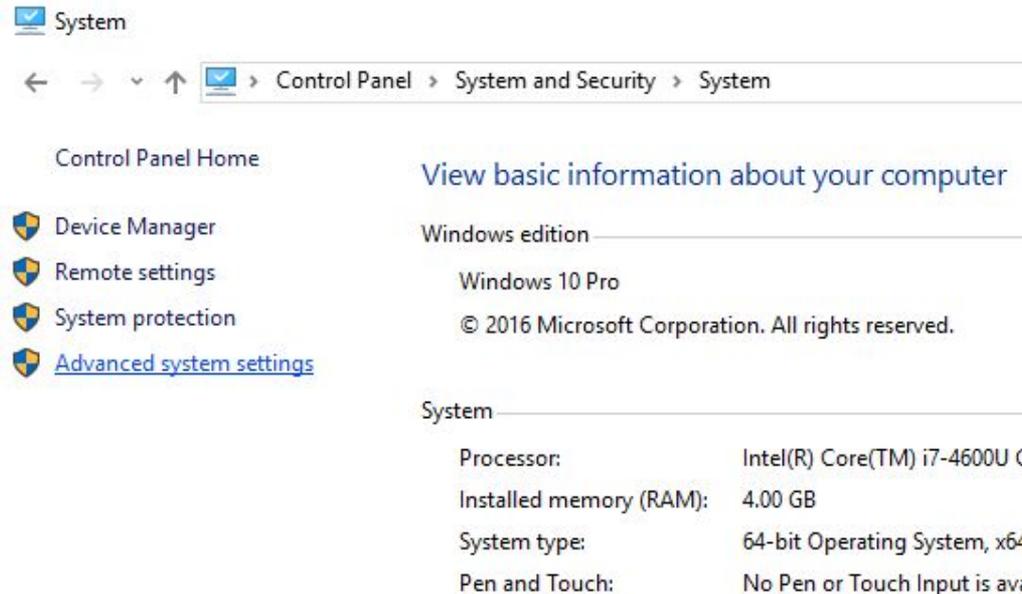


The screenshot shows the MinGW Installation Manager interface. The 'Installation' menu is open, highlighting the 'Apply Changes' option. The main window displays a table of installed packages.

Package	Class	Installed Version	Repository Version	Description
<input checked="" type="checkbox"/> mingw-developer-tool...	bin	2013072300	2013072300	An MSYS Installation for MinGW Developer
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<input checked="" type="checkbox"/> mingw32-gcc-g++	bin	5.3.0-3	5.3.0-3	The GNU C++ Compiler
<input checked="" type="checkbox"/> mingw32-gcc-objc	bin		5.3.0-3	The GNU Objective-C Compiler
<input checked="" type="checkbox"/> msys-base	bin	2013072300	2013072300	A Basic MSYS Installation (meta)

Installazione MinGW: "Minimalist GNU for Windows"

Per poter usare il compilatore da riga di comando senza dover richiamare ogni volta tutto il percorso andiamo a modificare il Path di sistema:

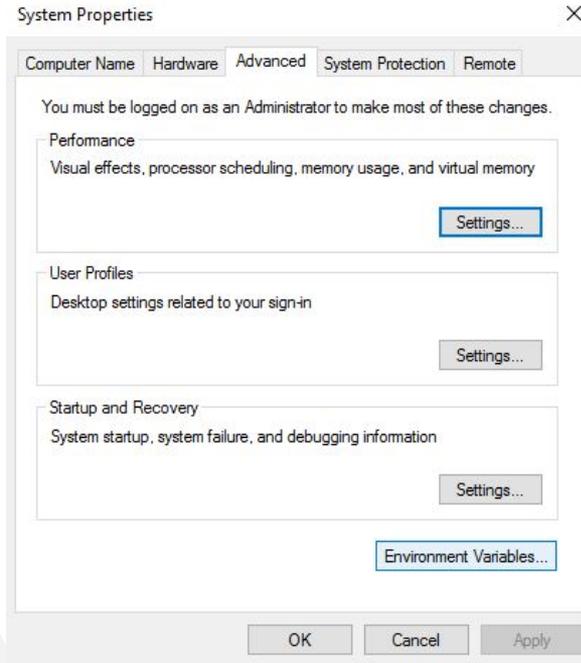


The screenshot shows the Windows Control Panel window for the 'System' category. The breadcrumb path is 'Control Panel > System and Security > System'. On the left, there are links for 'Device Manager', 'Remote settings', 'System protection', and 'Advanced system settings'. The main content area is titled 'View basic information about your computer' and displays the following system information:

Windows edition	Windows 10 Pro
	© 2016 Microsoft Corporation. All rights reserved.
System	
Processor:	Intel(R) Core(TM) i7-4600U C
Installed memory (RAM):	4.00 GB
System type:	64-bit Operating System, x64
Pen and Touch:	No Pen or Touch Input is av

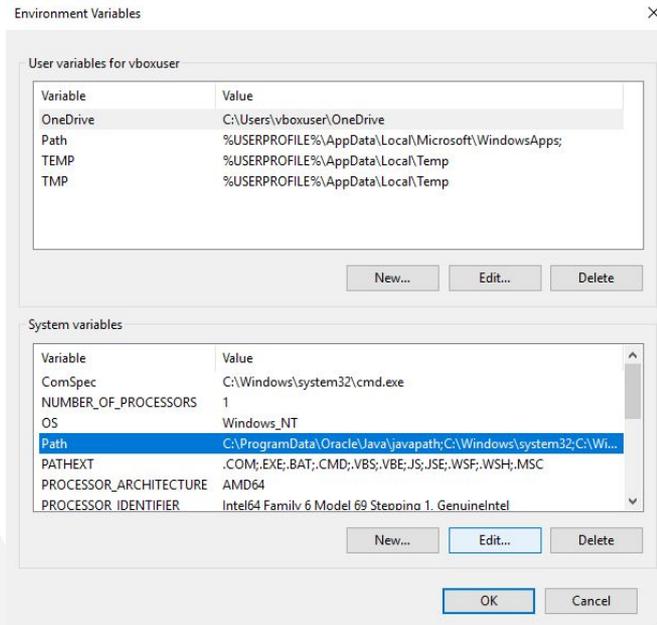
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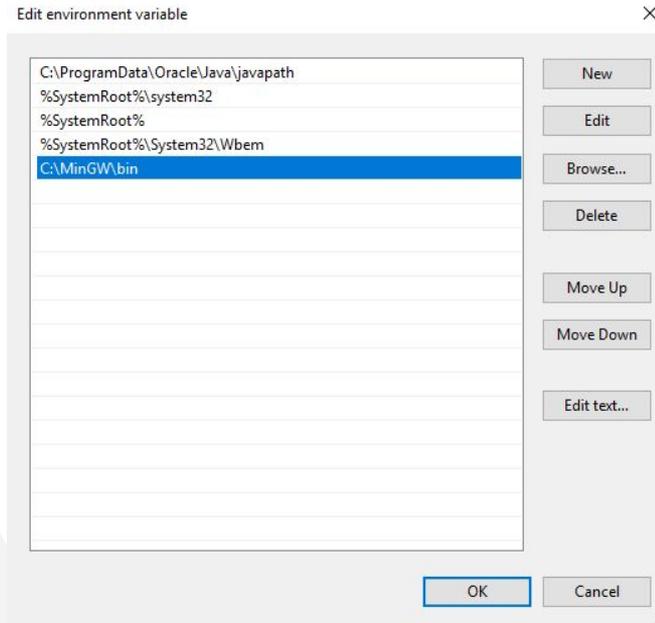
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Una volta riavviato il sistema
aprite il terminale di Windows e
provate a dare il comando:
gcc.exe

C:\ Administrator: Command Prompt

```
C:\Windows>cd ..  
  
C:\>gcc.exe  
gcc.exe: fatal error: no input files  
compilation terminated.  
  
C:\>
```

GNU Compiler Collection



Comandi per la compilazione

Per la compilazione da terminale/promt di windows:

```
gcc -o nomefile.exe nomefile.c
```

Per eseguire il file creato da terminale/promt di windows:

```
nomefile.exe
```

Per la compilazione da teminale linux:

```
gcc -o nomefile nomefile.c
```

Per l'esecuzione su linux:

```
./nomefile
```