

2D 게임 프로그래밍

- 반드시 카메라를 ON 하고 !
- 입장 이름은 "학번 이름"으로 설정 !
- 미리 수업 git 서버에서 자료를 Pull 해서 준비 !

Lecture #19. 게임 패키징

2D 게임 프로그래밍

이대현 교수

학습 내용

- PyInstaller 를 이용한 실행 파일 building
- Installer의 제작

mygame.py가 실행되기 위해 필요로 하는 것들... (1)

- 여러분이 작성한 000.py
- 리소스: image, json, font 파일 등등

mygame.py가 실행되기 위해 필요로 하는 것들...(2)

- Pico2d 데이터 파일
- SDL 라이브러리 DLL

libFLAC-8	dll
libfreetype-6	dll
libjpeg-9	dll
libmikmod-2	dll
libmodplug-1	dll
libogg-0	dll
libpng16-16	dll
libtiff-5	dll
libvorbis-0	dll
libvorbisfile-3	dll
libwebp-4	dll
SDL2	dll
SDL2_image	dll
SDL2_mixer	dll
SDL2_ttf	dll
smpeg2	dll
zlib1	dll

pico2d update(콘솔창에서)

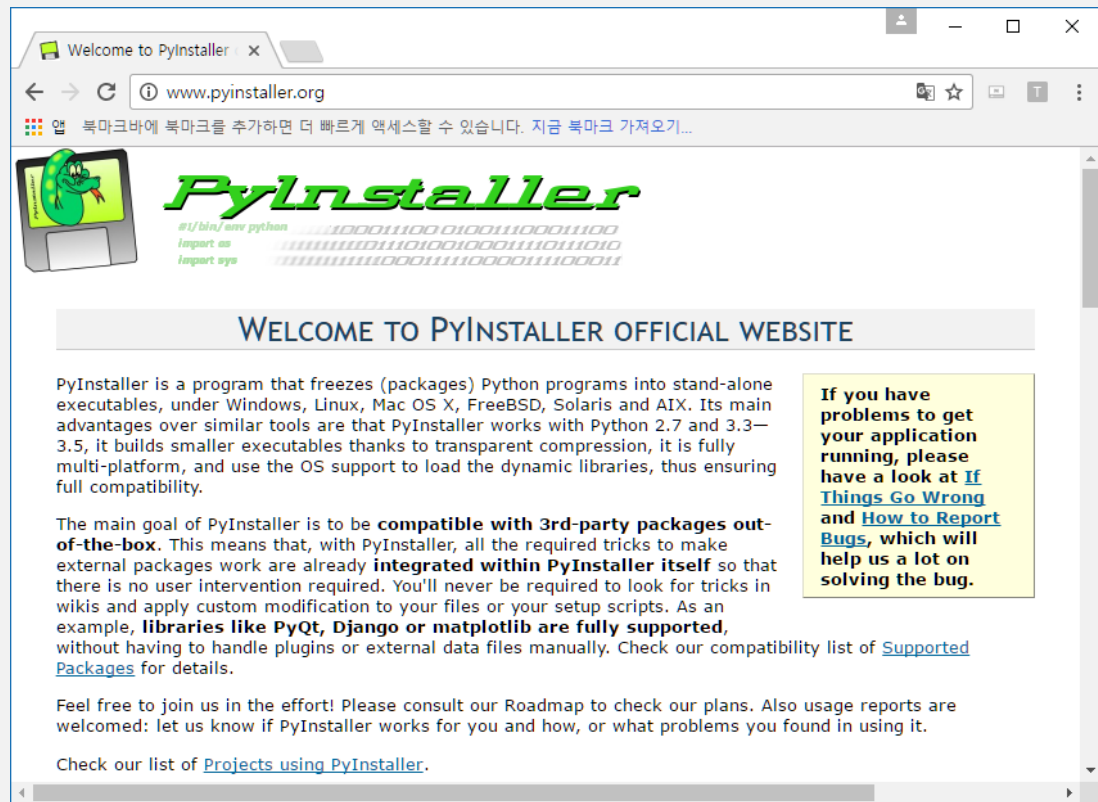
```
pip uninstall pico2d  
pip install pico2d
```



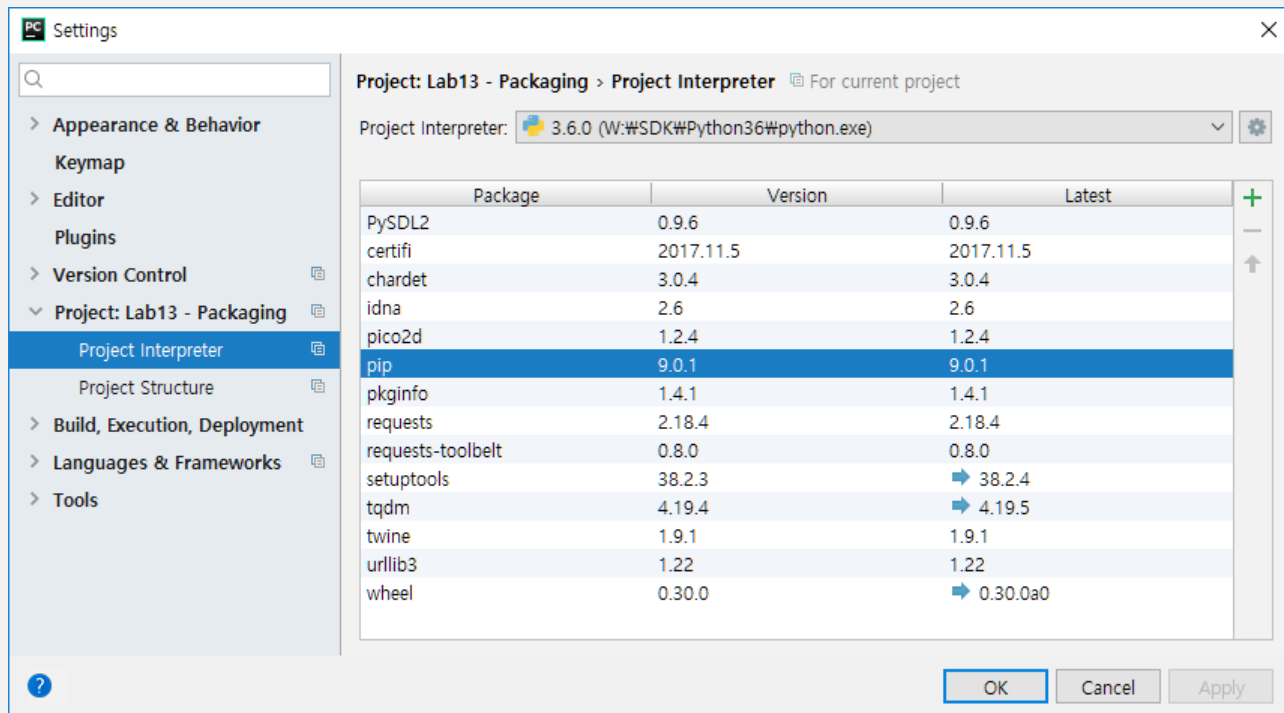
mygame.py 를
Mygame.exe 로 변환

PyInstaller

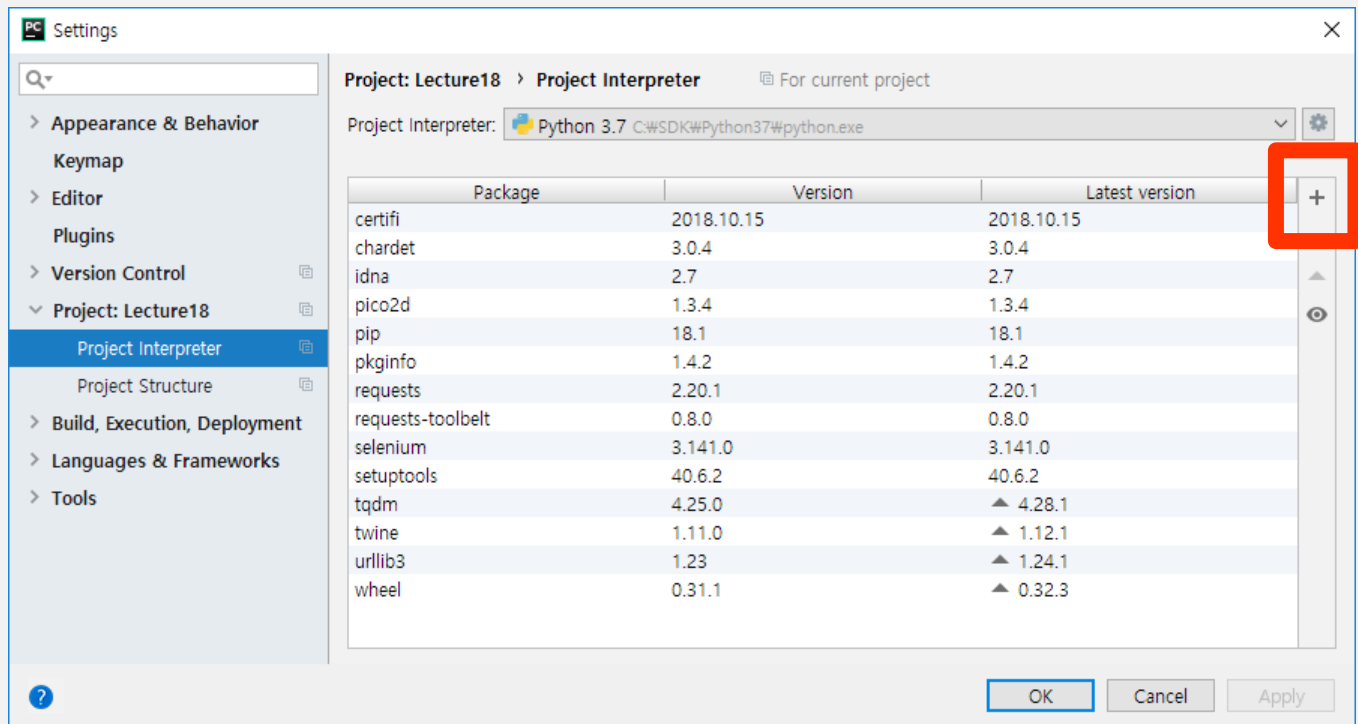
■ <http://www.pyinstaller.org/>



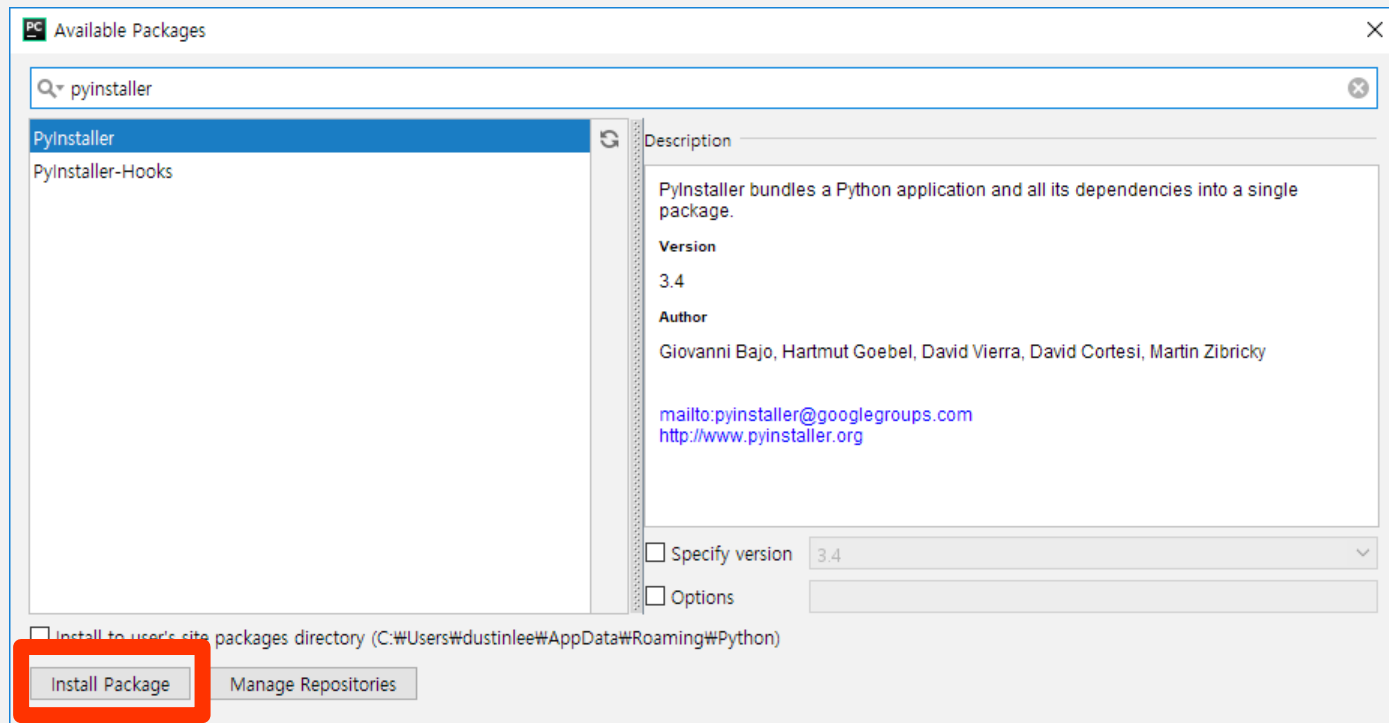
PyCharm: pip 설치 확인



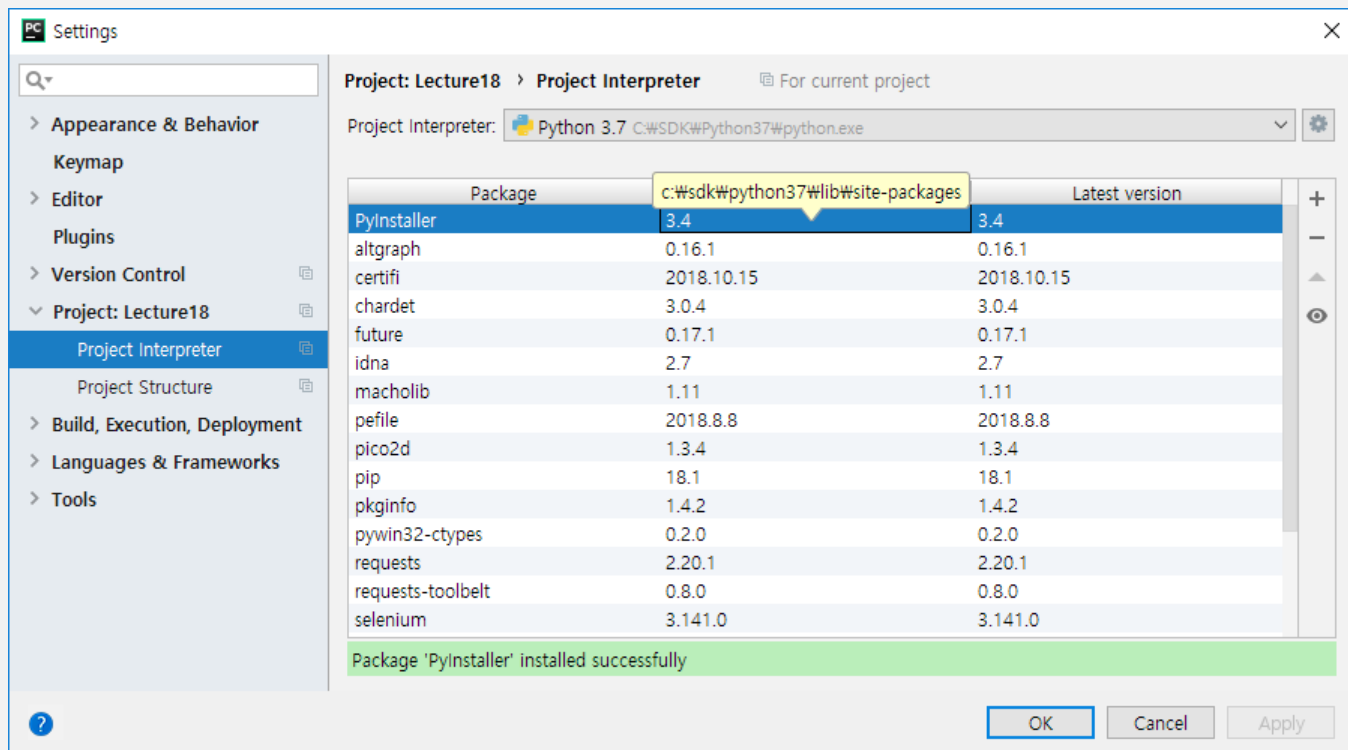
PyCharm: pip 설치 및 version upgrade



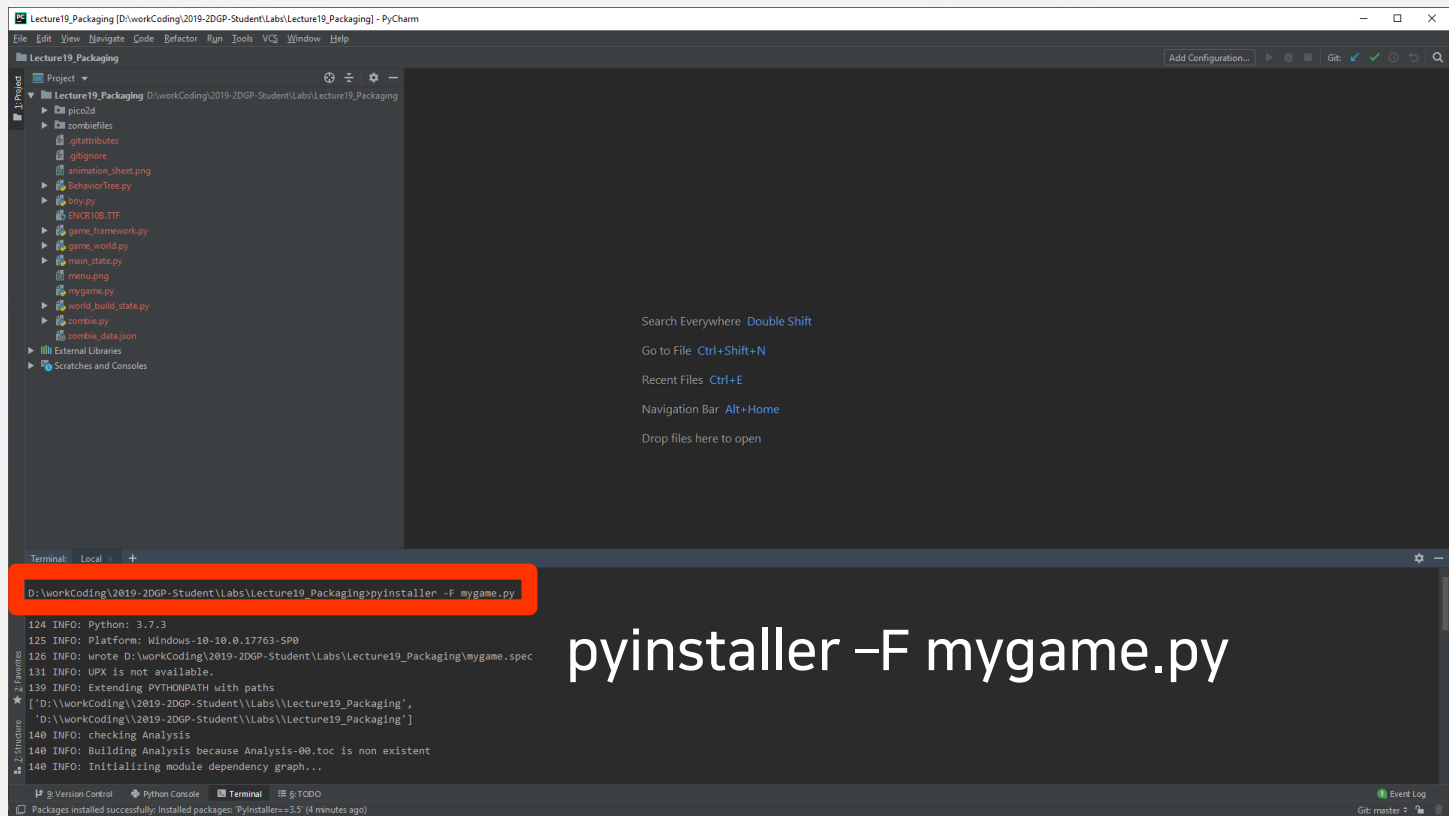
PyCharm: PyInstaller 설치



PyCharm: PyInstaller 설치 확인



View → Tool Windows → Terminal 을 열고,

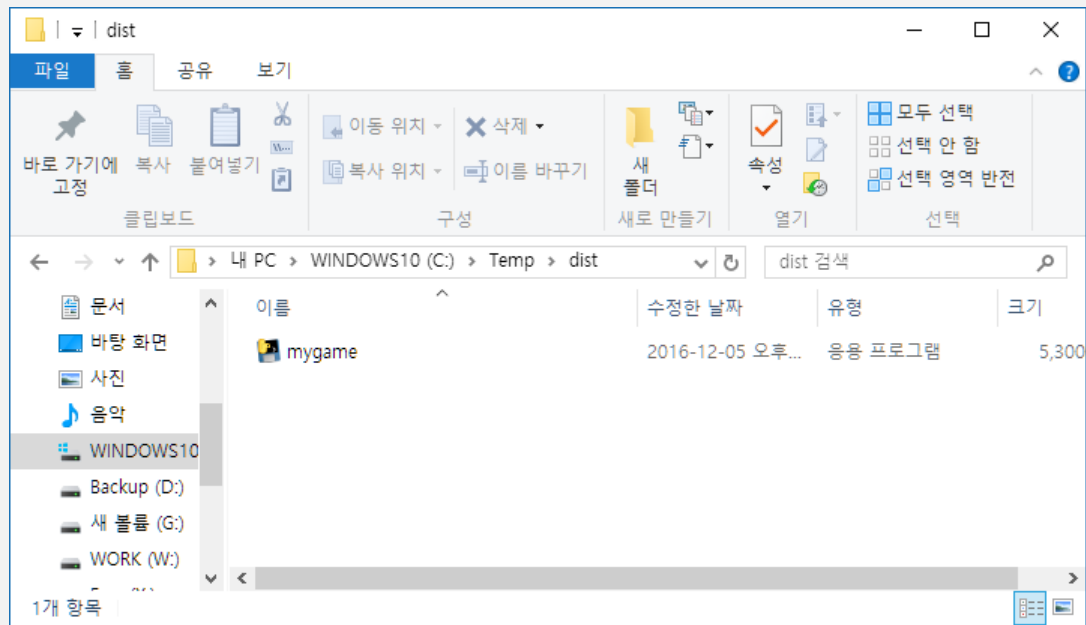


pyinstaller -F mygame.py

```
Terminal: Local x +
7842 INFO: Building PYZ (ZlibArchive) D:\workCoding\2019-2DGP-Student\Labs\Lecture19_Packaging\build\mygame\PYZ-00.pyz completed successfully.
7855 INFO: checking PKG
7856 INFO: Building PKG because PKG-00.toc is non existent
7856 INFO: Building PKG (CArchive) PKG-00.pkg
10303 INFO: Building PKG (CArchive) PKG-00.pkg completed successfully.
10309 INFO: Bootloader c:\python37\lib\site-packages\PyInstaller\bootloader\Windows-64bit\run.exe
10310 INFO: checking EXE
10310 INFO: Building EXE because EXE-00.toc is non existent
10311 INFO: Building EXE from EXE-00.toc
10312 INFO: Appending archive to EXE D:\workCoding\2019-2DGP-Student\Labs\Lecture19_Packaging\dist\mygame.exe
10399 INFO: Building EXE from EXE-00.toc completed successfully.

D:\workCoding\2019-2DGP-Student\Labs\Lecture19_Packaging>
```

dist 폴더에 만들어진, mygame.exe



여기서 그냥 단독 실행하면, 제대로 실행이 되지 않음.
Mygame.exe가 필요로 하는 외부 파일을 찾을 수 없기 때문.

리소스 및 필요 DLL 을 dist 폴더로 복사해야 함.








■Pico2d 라이브러리 파일

- /pico2d 폴더에 담겨 있음.

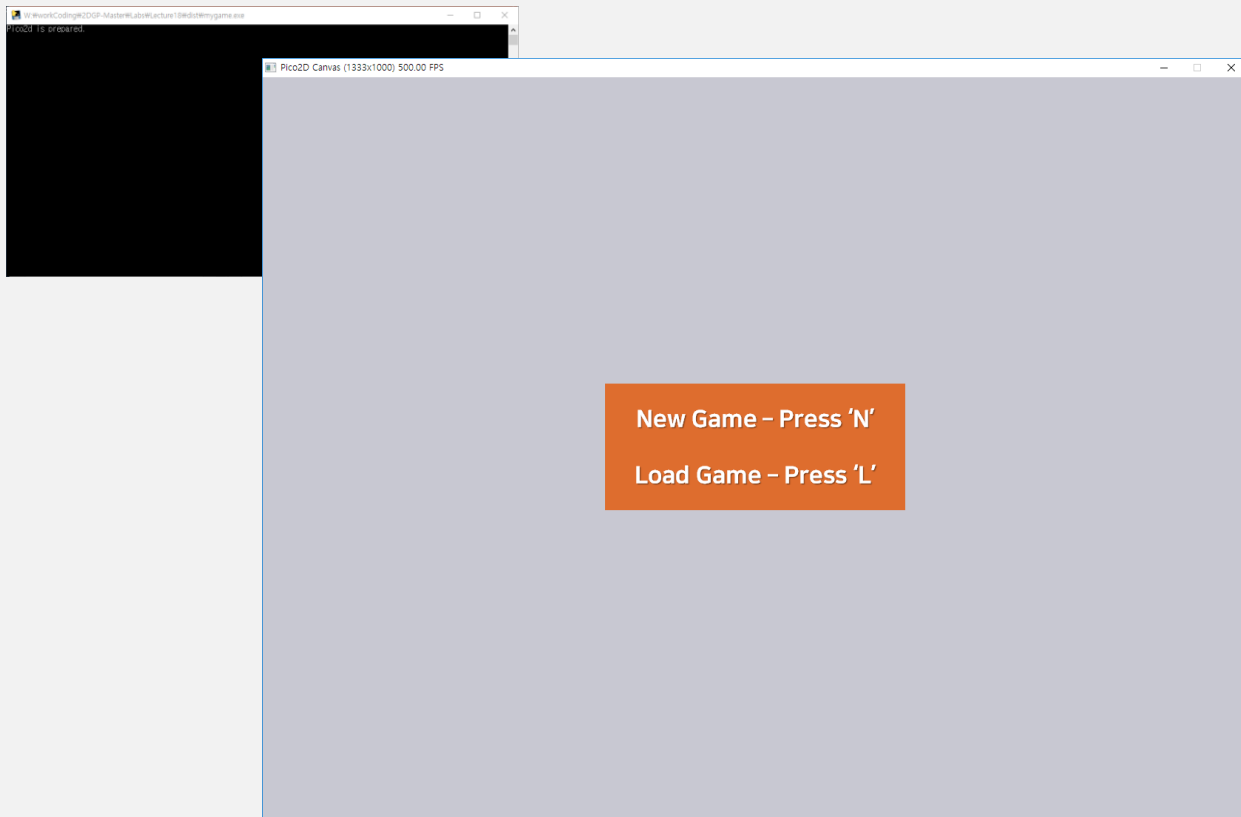
■게임에 따라 필요한 리소스 파일

- 현재 실습 파일의 경우,
 - 폰트 - ENCR10B.TTF
 - 메뉴 이미지 - menu.png
 - 애니메이션 스프라이트 이미지 - animation_sheet.png
 - 좀비 데이터 JSON 파일 - zombie_data.json

dist 폴더: 여기서 mygame.exe 을 클릭하면 실행!

Work (W:) > workCoding > 2DGP-Master > Labs > Lecture18 > dist >				
<input type="checkbox"/> 이름	수정한 날짜	유형	크기	
 pico2d	2018-11-27 오전...	파일 폴더		
 zombiefiles	2018-11-27 오전...	파일 폴더		
 animation_sheet.png	2018-10-23 오전...	알씨 PNG 파일	64KB	
 ENCR10B.TTF	2018-09-15 오후...	트루타입 글꼴 파일	43KB	
 menu.png	2018-11-25 오후...	알씨 PNG 파일	11KB	
 mygame.exe	2018-11-27 오전...	응용 프로그램	5,815KB	
 zombie_data.json	2018-11-26 오전...	JSON File	1KB	

실행 결과



콘솔창을 없애려면?

```
Pyinstaller -F --windowed mygame.py
```

파이썬 코드 최적화

```
python -O -m PyInstaller -F mygame.py
```



Installer를 이용한
설치 파일 제작

Inno Setup 의 설치

Inno Setup Downloads

jrsoftware.org/isdl.php

Change in default behavior: Starting with Inno Setup 6.1 the [Setup] section directive MinVersion defaults to 6.1sp1, so **by default Setup will not run on Windows Vista** or on versions of Windows 7 and Windows Server 2008 R2 which have not been updated. Setting MinVersion to 6.0 to allow Setup to run on Windows Vista is supported but not recommended: Windows Vista doesn't support some of Setup's security measures against potential DLL preloading attacks so these have to be removed by the compiler if MinVersion is below 6.1 making your installer less secure on all versions of Windows.

Change in default behavior: Starting with Inno Setup 6 there's only one version available: Unicode Inno Setup. Unicode Inno Setup has been available for since 2009 but in case you have not yet updated to it: please see the [Unicode Inno Setup](#) topic in the help file for more information. Basically, unless you're using [Code] to make DLL calls with string parameters you shouldn't have to make any changes to your script.

What's new in this version?

Filename	Download Sites	Downloads	Date	Description
innosetup-6.2.0.exe	Random site US Netherlands	634,134	2021-06-03	Unicode Inno Setup self-installing package .

Remember to check the [Inno Setup FAQ](#) for solutions to common problems. Also see the [Third Party Files](#) page for some useful tools, and translations of Setup into other languages.

Encryption Module

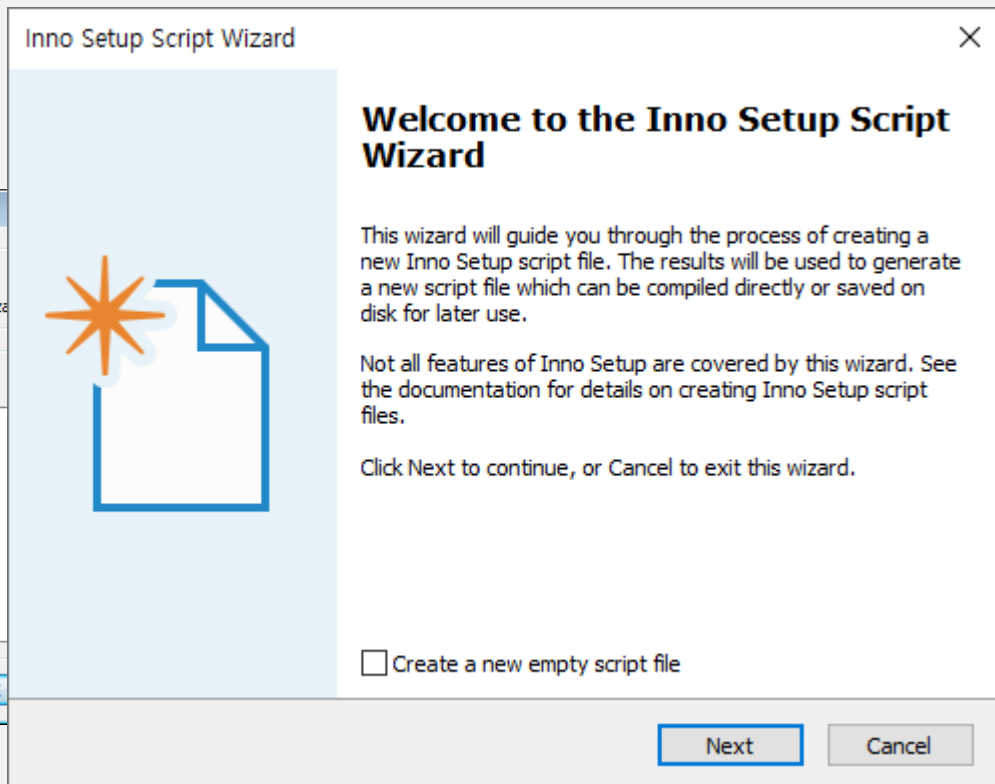
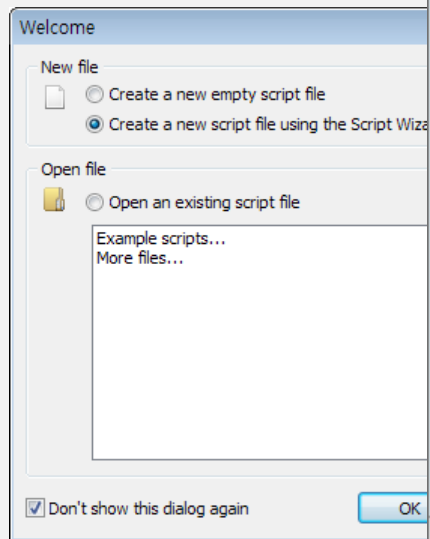
For legal reasons, encryption code is not built into Inno Setup. You must download a separate "encryption module" if you wish to utilize Inno Setup's encryption capabilities (that is, the Encryption [Setup] section directive). Note: The installer above can download and install it for you.

Filename	Download Sites	Downloads	Size	Description
ISCrypt.dll	Netherlands	1,339,250	2.5 KB	Encryption module for Inno Setup. To install, simply place the file in your Inno Setup directory. sha256 hash: 2f6294f9aa09f59a574b5dcd33be54e16b39377984f3d5658cda44950fa0f8fc
ISCrypt.zip	Netherlands	372,302	2 KB	Source code for the encryption module. sha256 hash: 0569ffe1677ba699d07063a902d48c2f92c8e88669bdc13118f5808c30e998bc

Beta Release

There are no beta versions currently available, but you can get a glimpse of what features might be included in the next release by viewing the [Revision History file in Git](#).

실행: File->New



Inno Setup Script Wizard



Application Information

Please specify some basic information about your application.



Application name:

My 2D Game

Application version:

1.0

Application publisher:

KPU

Application website:

<https://www.kpu.ac.kr>

bold = required

Back

Next

Cancel

Inno Setup Script Wizard

Application Folder
Please specify folder information about your application.

Application destination base folder:
Program Files folder

Application folder name:
MyGame89418022

☒ Allow user to change the application folder

Other:
☐ The application doesn't need a folder

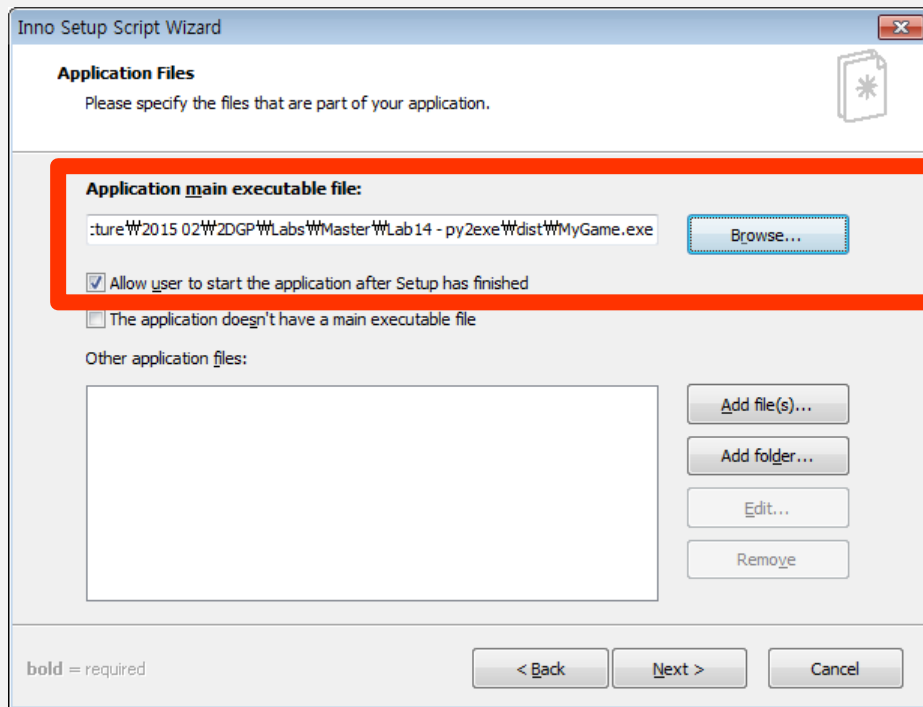
bold = required

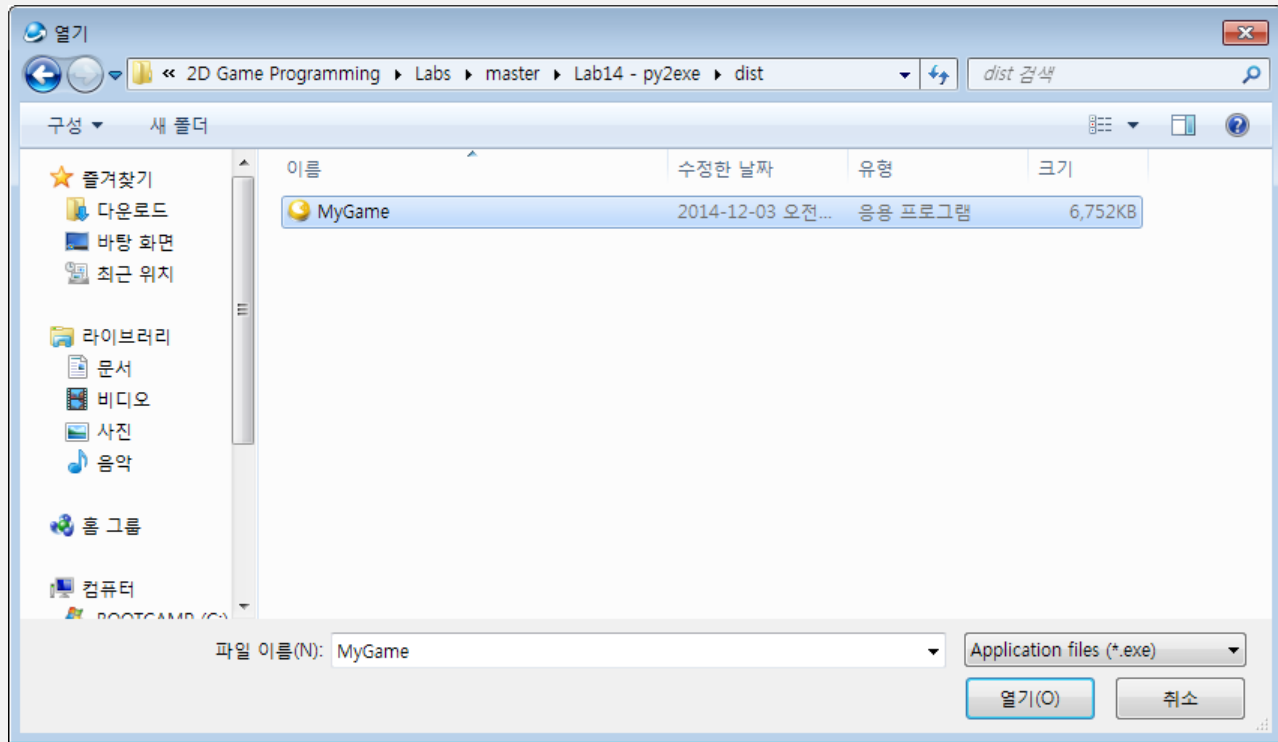
< Back Next > Cancel

프로그램이 설치될 폴더.

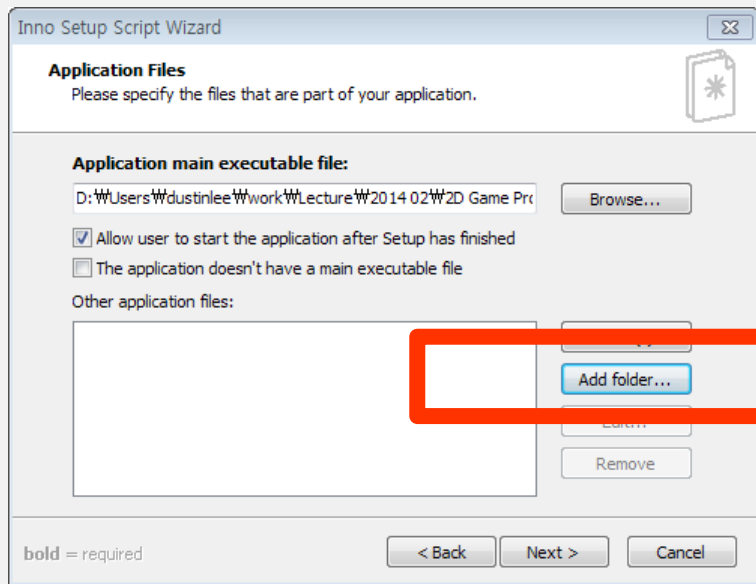
프로젝트 발표를 위해서, 학번으로 구별하는 것이 좋음.

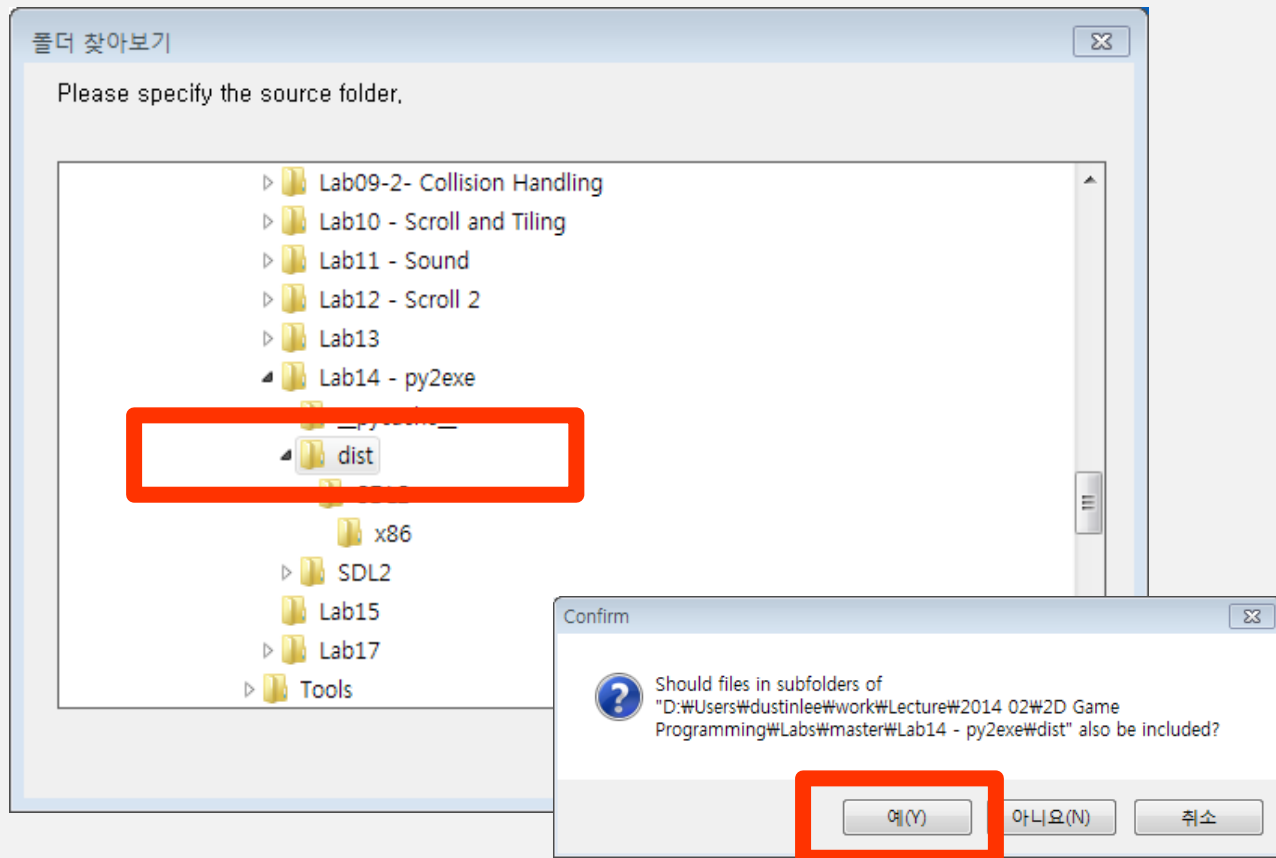
exe 파일의 추가





파일 폴더의 추가






Inno Setup Script Wizard

Application File Association
Please specify which file association should be created for your application.

☐ Associate a file type to the main executable

Application file type name:

Application file type extension:



bold = required

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Cancel

Inno Setup Script Wizard



Application Shortcuts

Please specify which shortcuts should be created for your application.



☒ **Create a shortcut to the main executable in the Start Menu Programs folder**

Application Start Menu folder name:

My 2D Game

☒ Allow user to change the Start Menu folder name

☐ Allow user to disable Start Menu folder creation

☐ Create an Internet shortcut in the Start Menu folder

☐ Create an Uninstall shortcut in the Start Menu folder

Other shortcuts to the main executable:

☒ Allow user to create a desktop shortcut


bold = required

Back

Next

Cancel

Inno Setup Script Wizard ✕

Application Documentation 

Please specify which documentation files should be shown by Setup during installation.

License file:
 Browse...

Information file shown before installation:
 Browse...

Information file shown after installation:
 Browse...

< Back Next > Cancel

Inno Setup Script Wizard

Setup Install Mode
Please specify in which install mode Setup should run.

Install mode:

- ☒ Administrative install mode (install for all users)
- ☐ Non administrative install mode (install for current user only)
- ☐ Allow user to override the install mode via the command line
- ☐ Ask the user to choose the install mode at startup

bold = required

Back Next Cancel



Inno Setup Script Wizard

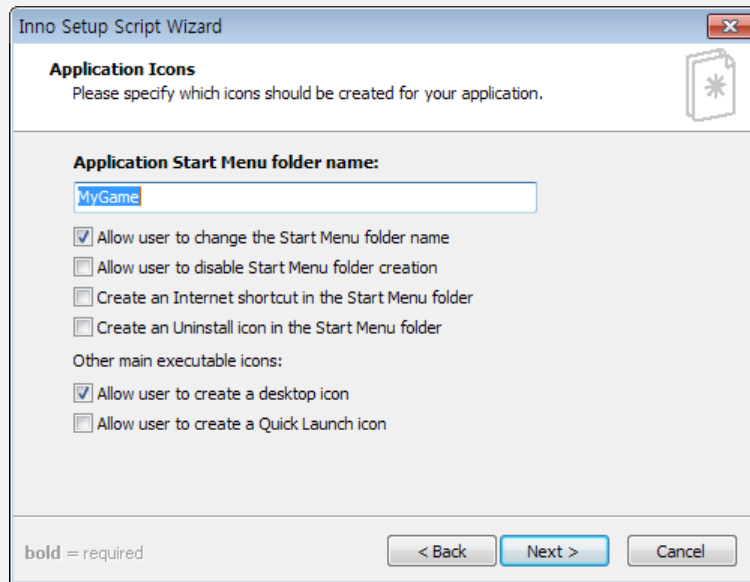
Compiler Settings
Please specify some basic compiler settings.

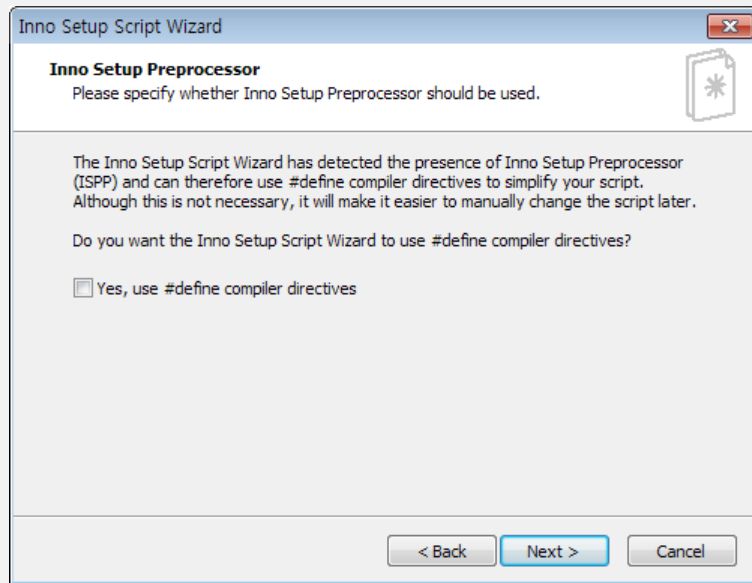
Custom compiler output folder:

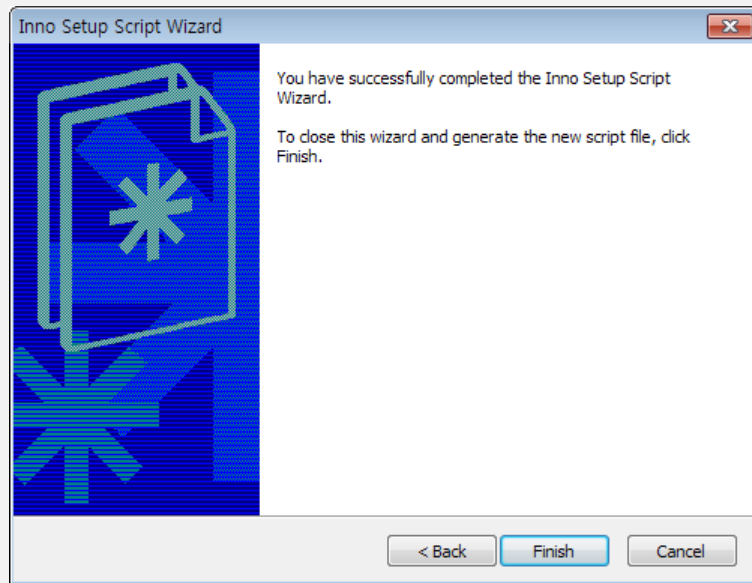
Compiler output base file name:

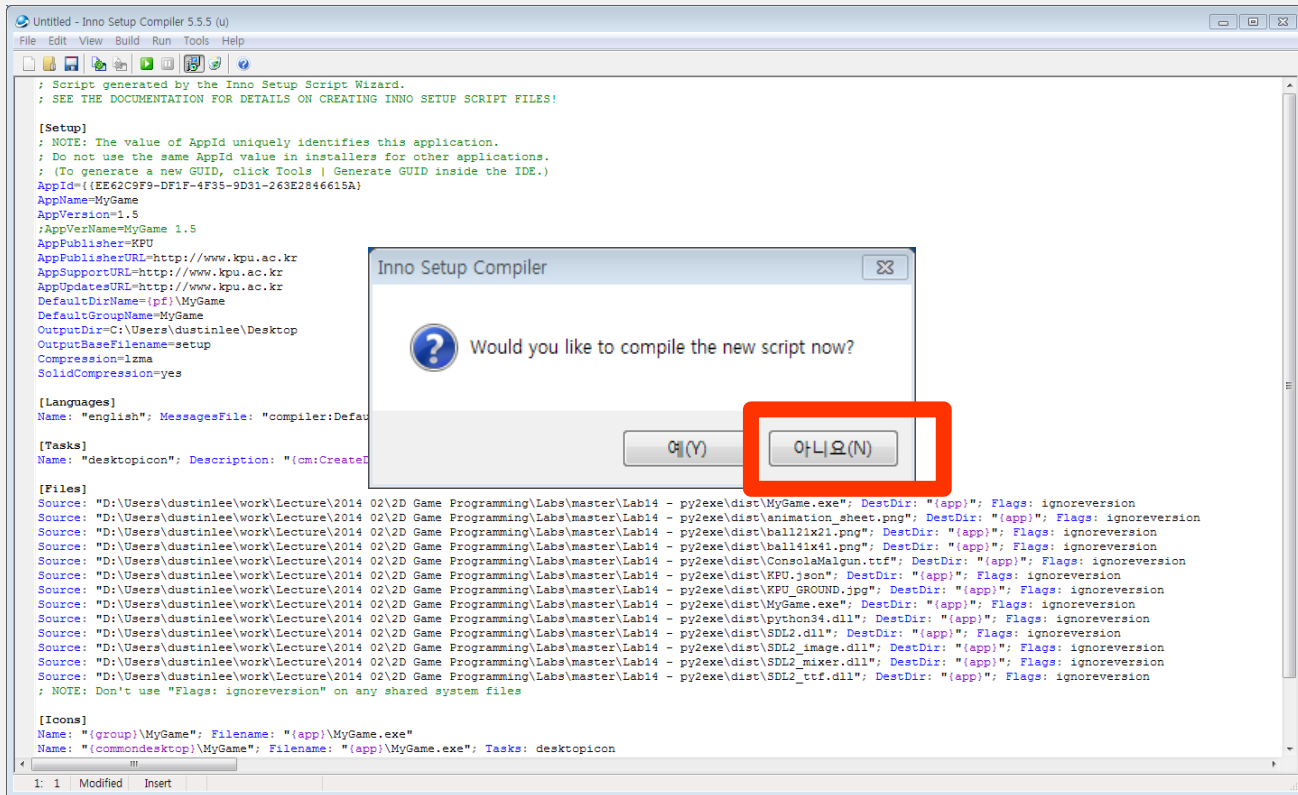
Custom Setup icon file:

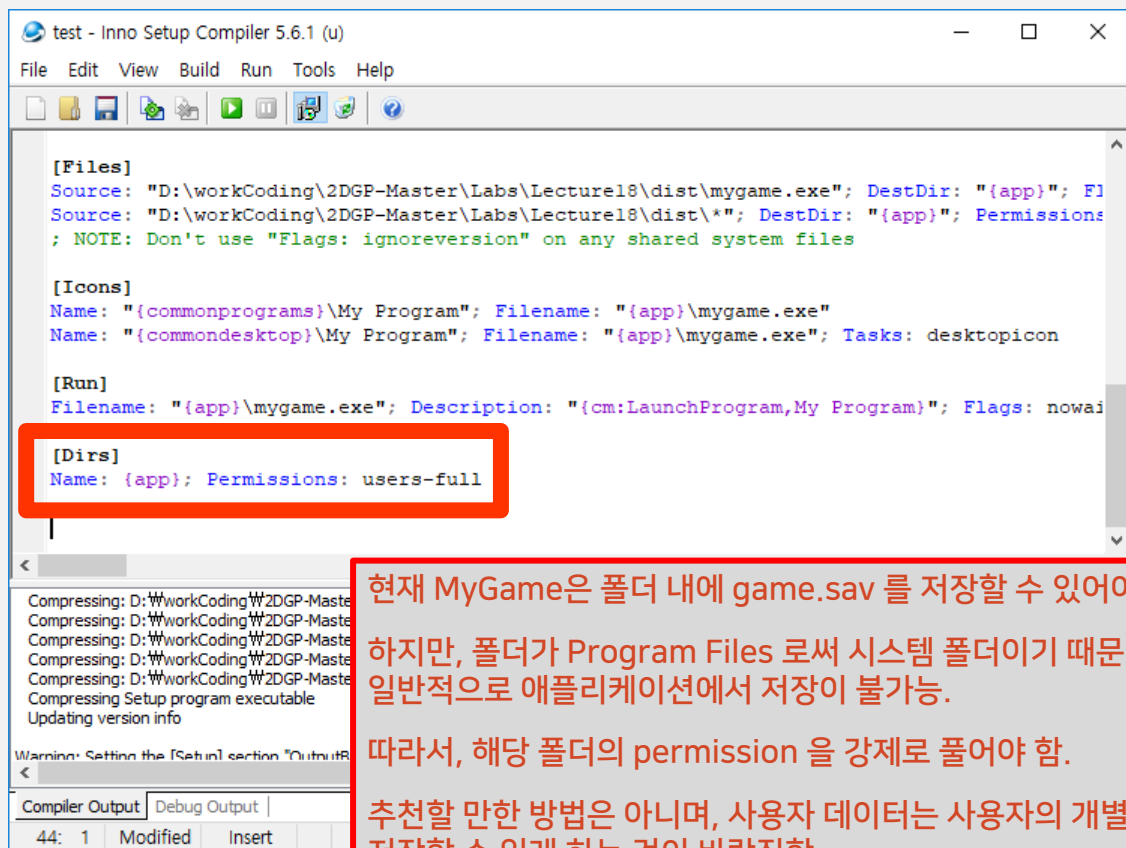
Setup password:

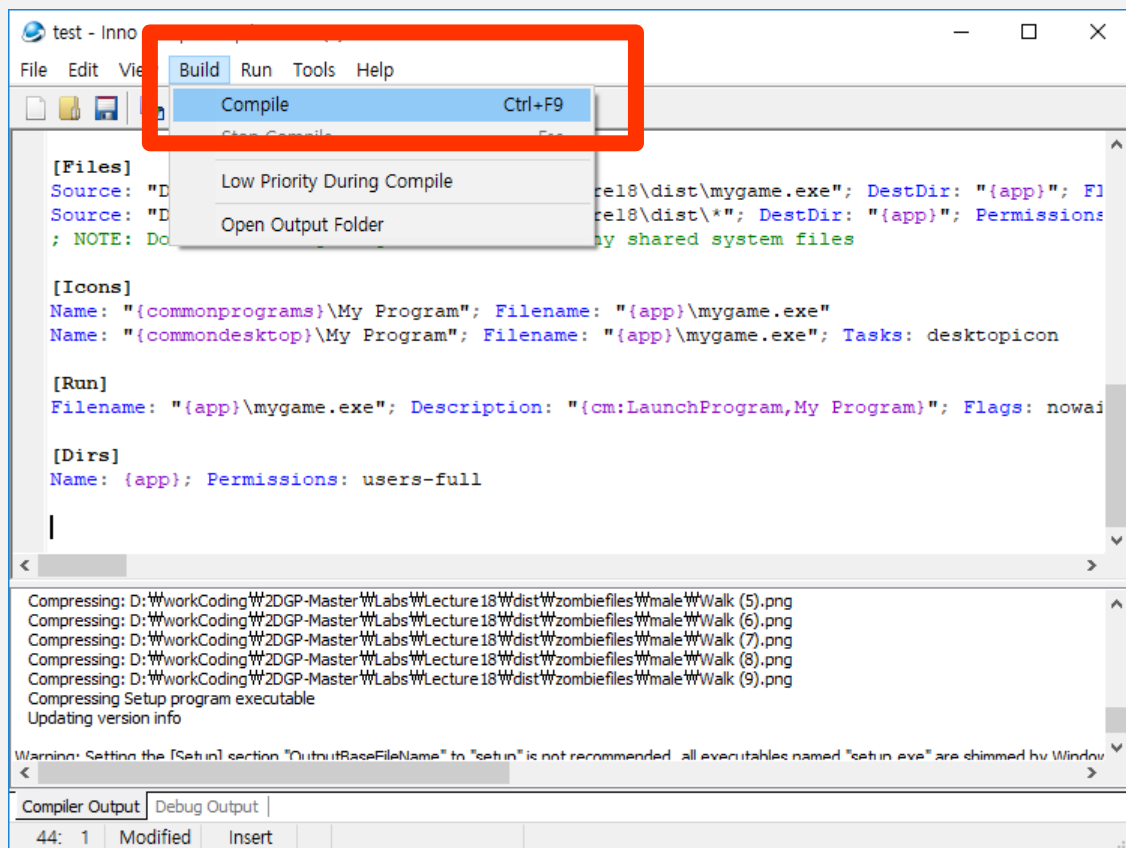












생성된 셋업 파일

