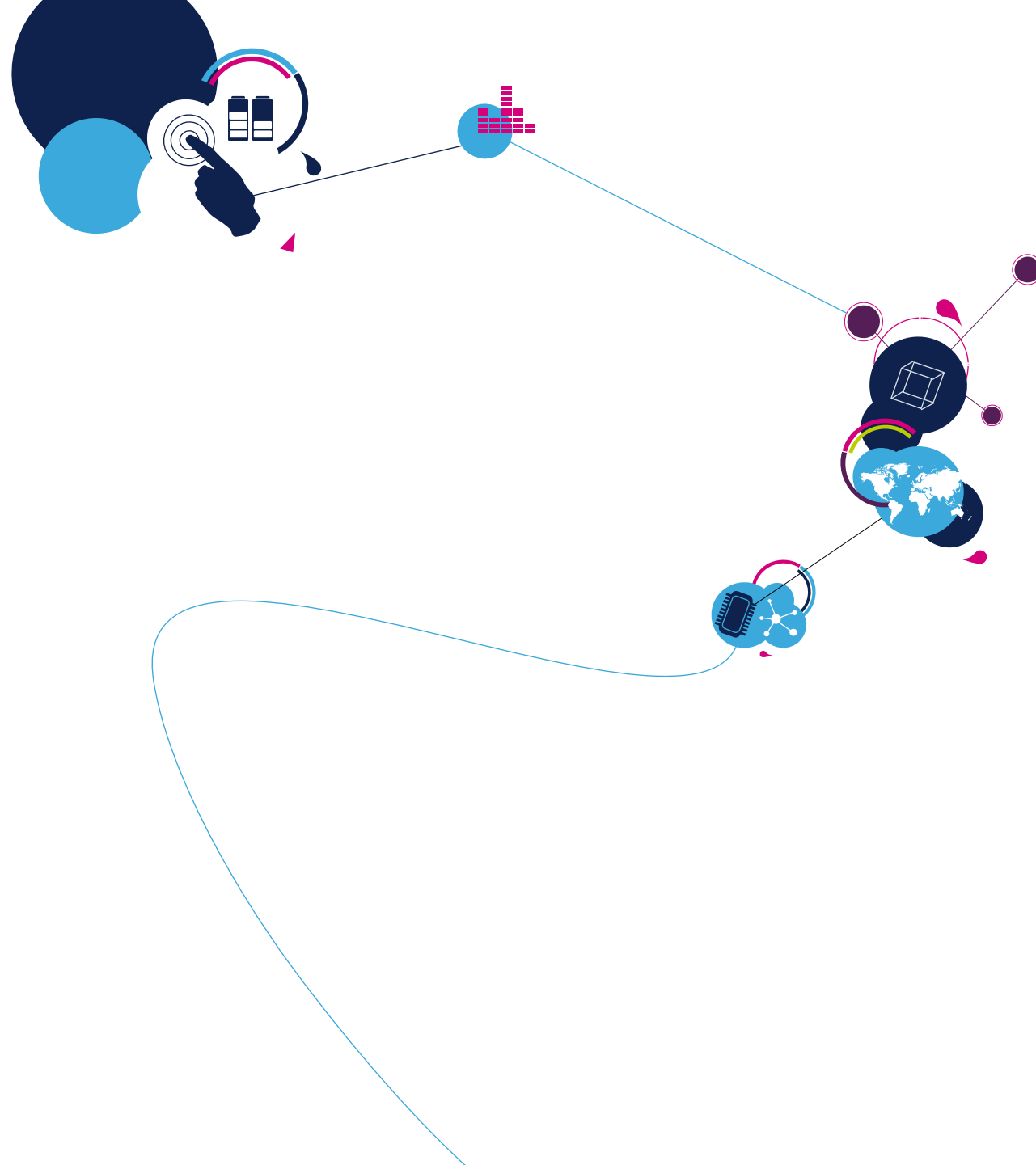


动手实验2

创建一个TouchGFX Designer的模板



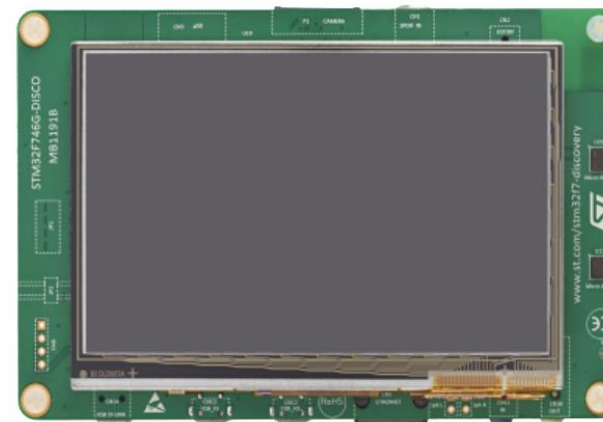
- 使用TouchGFX Designer 4.10.0制作HelloWorld模板
- 使用IDE（IAR）工具，将生成的模板，编译到工程中，显示在目标板上

- 主机

- 安装TouchGFX Designer4.10.0
- STM32CubeProgrammer或者ST-Link Utility
- 安装对应的IDE（Eg. IAR8.32）

- GUI板

- STM32F746G-DISCO（演示用）
 - STM32F746NGH6
 - 272x480 LCD屏
 - 外扩SDRAM



1.使用STM32CubeMX生成TouchGFX工程

 Core	4/10/2019 9:56 AM	File folder	
 Drivers	4/10/2019 9:56 AM	File folder	
 EWARM	4/11/2019 3:35 PM	File folder	
 Middlewares	4/10/2019 9:56 AM	File folder	
 TouchGFX	4/12/2019 10:25 AM	File folder	
 .mxproject	4/11/2019 3:35 PM	MXPROJECT File	19 KB
 HelloWorld_CubeMX.ioc	4/11/2019 3:34 PM	STM32CubeMX	23 KB

2.在命令行中操作:

6

在dos命令行下运行如下命令:

```
c:\workshop\STM32F746_GUI_handson>c:\TouchGFX\4.10.0\designer\tgfx.exe pack -d
```

```
STM32F746_GUI_Hands_On
```

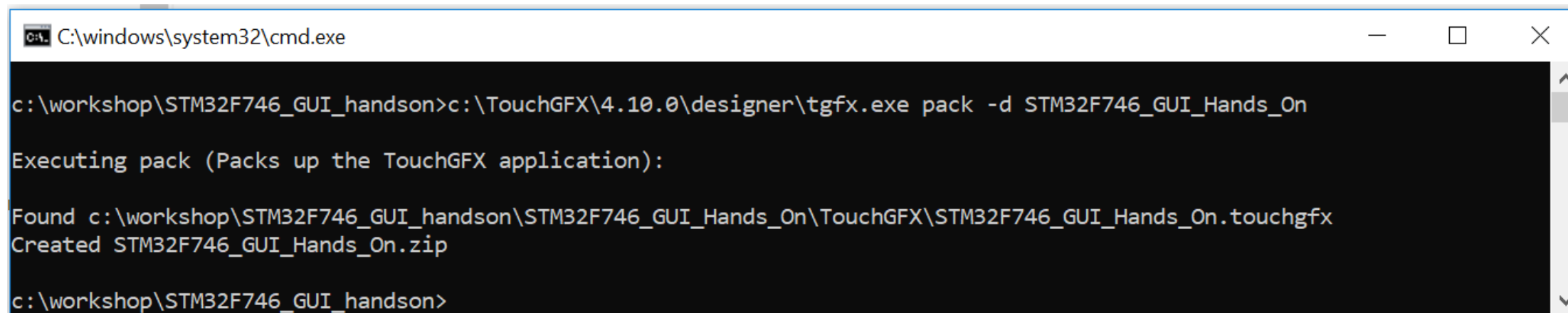
```
Executing pack (Packs up the TouchGFX application):
```

```
Found
```

```
c:\workshop\STM32F746_GUI_handson\STM32F746_GUI_Hands_On\TouchGFX\STM32F746_GUI_Hands_On
```

```
.touchgfx
```

```
Created STM32F746_GUI_Hands_On.zip
```



```
C:\windows\system32\cmd.exe

c:\workshop\STM32F746_GUI_handson>c:\TouchGFX\4.10.0\designer\tgfx.exe pack -d STM32F746_GUI_Hands_On

Executing pack (Packs up the TouchGFX application):

Found c:\workshop\STM32F746_GUI_handson\STM32F746_GUI_Hands_On\TouchGFX\STM32F746_GUI_Hands_On.touchgfx
Created STM32F746_GUI_Hands_On.zip

c:\workshop\STM32F746_GUI_handson>
```

3. 编辑生成的MyApplication.json文件进行配置

1. 内置操作系统选择: **FreeRTOS**
2. “Name”: 描述
 “HumanFriendlyName”: 描述
 “BoardName”: 描述
 “Type”: “TGAT” 设置成TGAT才可以
 在TouchGFX Designer上看到
 “Vendor”: “ST” 供应商
3. “Images”: 显示在TouchGFX Designer上的图片
4. AvailableResolution: 设置分辨率

```

{
  "TouchGFXVersion": {
    "Major": 4,
    "Minor": 10,
    "Build": 0
  },
  "CreatedAt": "2019-04-17T00:00:00Z",
  "PathToDotTouchGFX": "",
  "EmbeddedOs": "FreeRTOS" ← ①
},
{
  "Data": {
    "Version": {
      "Major": 1,
      "Minor": 0,
      "Build": 0
    },
    "Name": "HelloWorldApp",
    "HumanFriendlyName": "HelloWorldApp",
    "BoardName": "HelloWorldApp board", ← ②
    "Type": "TGAT",
    "Vendor": "STMicroelectronics",
    "Description": "",
    "DocumentationLink": "",
    "Category": "",
    "Images": [], ← ③
    "Tags": [],
    "AvailableResolutions": [ ← ④
      {
        "Height": 272,
        "Width": 480
      }
    ]
  }
}

```

①: "EmbeddedOs": "FreeRTOS"

②: "BoardName": "HelloWorldApp board",

③: "Images": [],

④: "AvailableResolutions": [

⑤: "http://stm32png.gz.bcebos.com/569FC23E-55F8-441B-AE71-F6A1AD34E8CF.png"

4.重新打包

8

在dos命令行下运行如下命令：

```
c:\workshop\STM32F746_GUI_handson>c:\TouchGFX\4.10.0\designer\tgfx.exe pack -rc -d
```

```
STM32F746_GUI_Hands_On
```

```
Executing pack (Packs up the TouchGFX application):
```

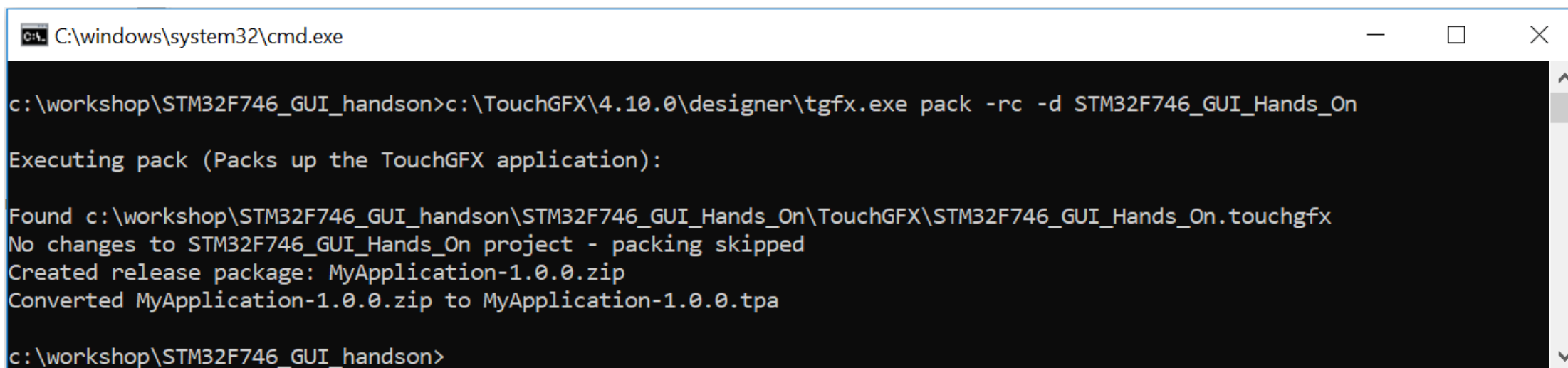
```
Found
```

```
c:\workshop\STM32F746_GUI_handson\STM32F746_GUI_Hands_On\TouchGFX\STM32F746_GUI_Hands_On  
.touchgfx
```

```
No changes to STM32F746_GUI_Hands_On project - packing skipped
```

```
Created release package: MyApplication-1.0.0.zip
```

```
Converted MyApplication-1.0.0.zip to MyApplication-1.0.0.tpa
```



```
C:\windows\system32\cmd.exe

c:\workshop\STM32F746_GUI_handson>c:\TouchGFX\4.10.0\designer\tgfx.exe pack -rc -d STM32F746_GUI_Hands_On

Executing pack (Packs up the TouchGFX application):

Found c:\workshop\STM32F746_GUI_handson\STM32F746_GUI_Hands_On\TouchGFX\STM32F746_GUI_Hands_On.touchgfx
No changes to STM32F746_GUI_Hands_On project - packing skipped
Created release package: MyApplication-1.0.0.zip
Converted MyApplication-1.0.0.zip to MyApplication-1.0.0.tpa

c:\workshop\STM32F746_GUI_handson>
```

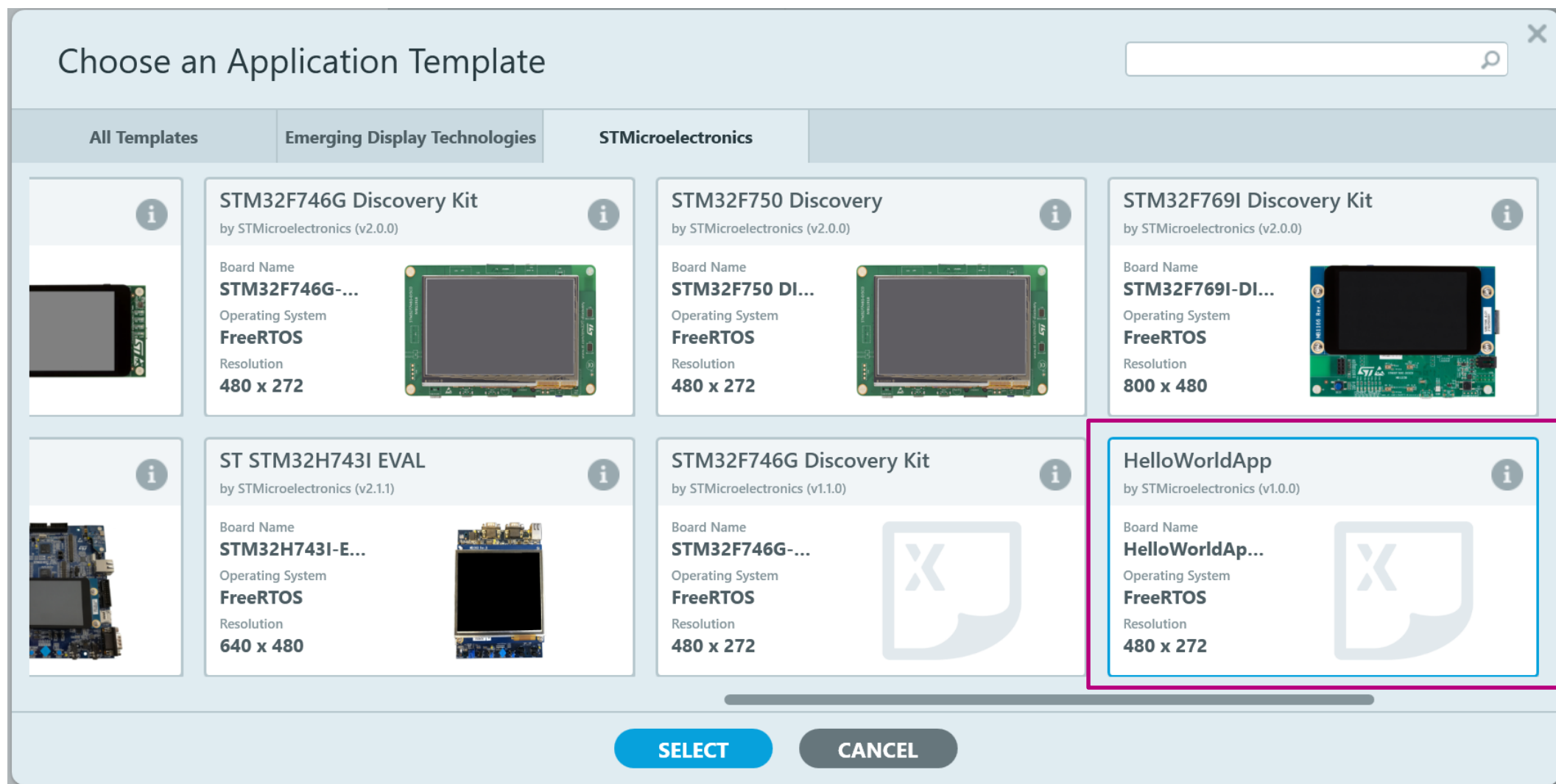
5.将生成的模板MyApplication-1.0.0.tpa拷贝到TouchGFX模板目录

拷贝这个路径下C:\TouchGFX\4.10.0\app\packages

Windows (C:) > TouchGFX > 4.10.0 > app > packages				
	Name	Date modified	Type	Size
	BlankUI-1.1.0.tpa	11/23/2018 4:54 PM	TPA File	17 KB
	MyApplication-1.0.0.tpa	4/12/2019 10:11 AM	TPA File	98,669 KB
	Simulator-1.1.0.tpa	11/23/2018 4:54 PM	TPA File	70 KB

6.打开TouchGFX Designer就可以看到HelloWorld的模板可以选择了:

10



7.选择目标板:

TouchGFX DESIGNER

MY APPLICATIONS

ONLINE APPLICATIONS

Create New Application

APPLICATION NAME
MyApplication2

APPLICATION DIRECTORY
C:\TouchGFXProjects

APPLICATION TEMPLATE

HelloWorldApp
by STMicroelectronics (v1.0.0)

Board Name
HelloWorldAp...
Operating System
FreeRTOS
Resolution
480 x 272

UI TEMPLATE

Blank UI
by STMicroelectronics (v1.1.0)

COLOR DEPTH
16 bit

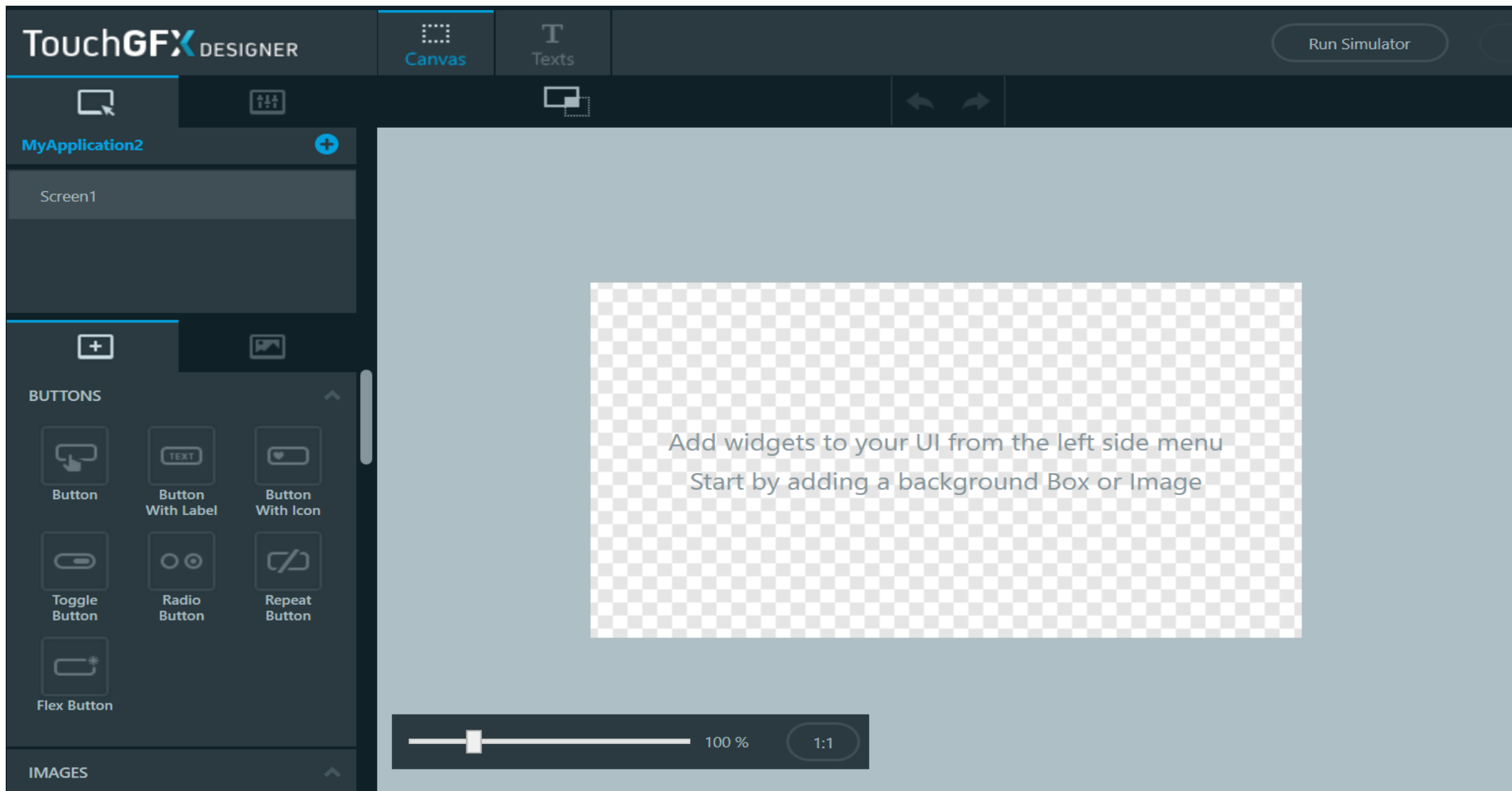
WIDTH
480

HEIGHT
272

CREATE

8. 可以看到工作台:

12

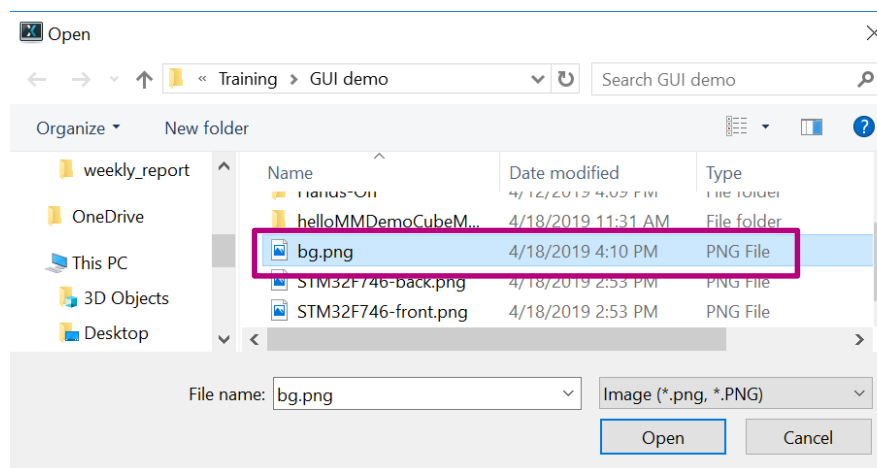
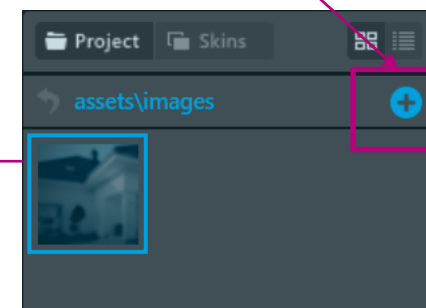
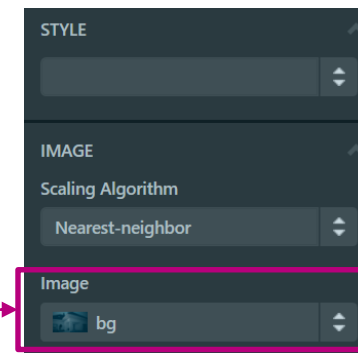
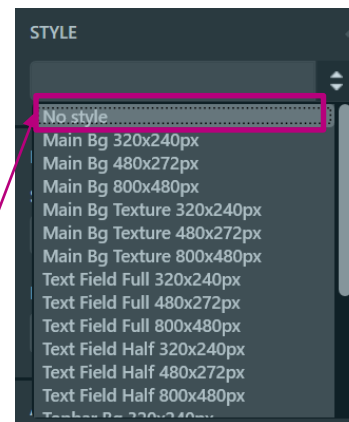


9. 添加资源就可以进行开发:

13

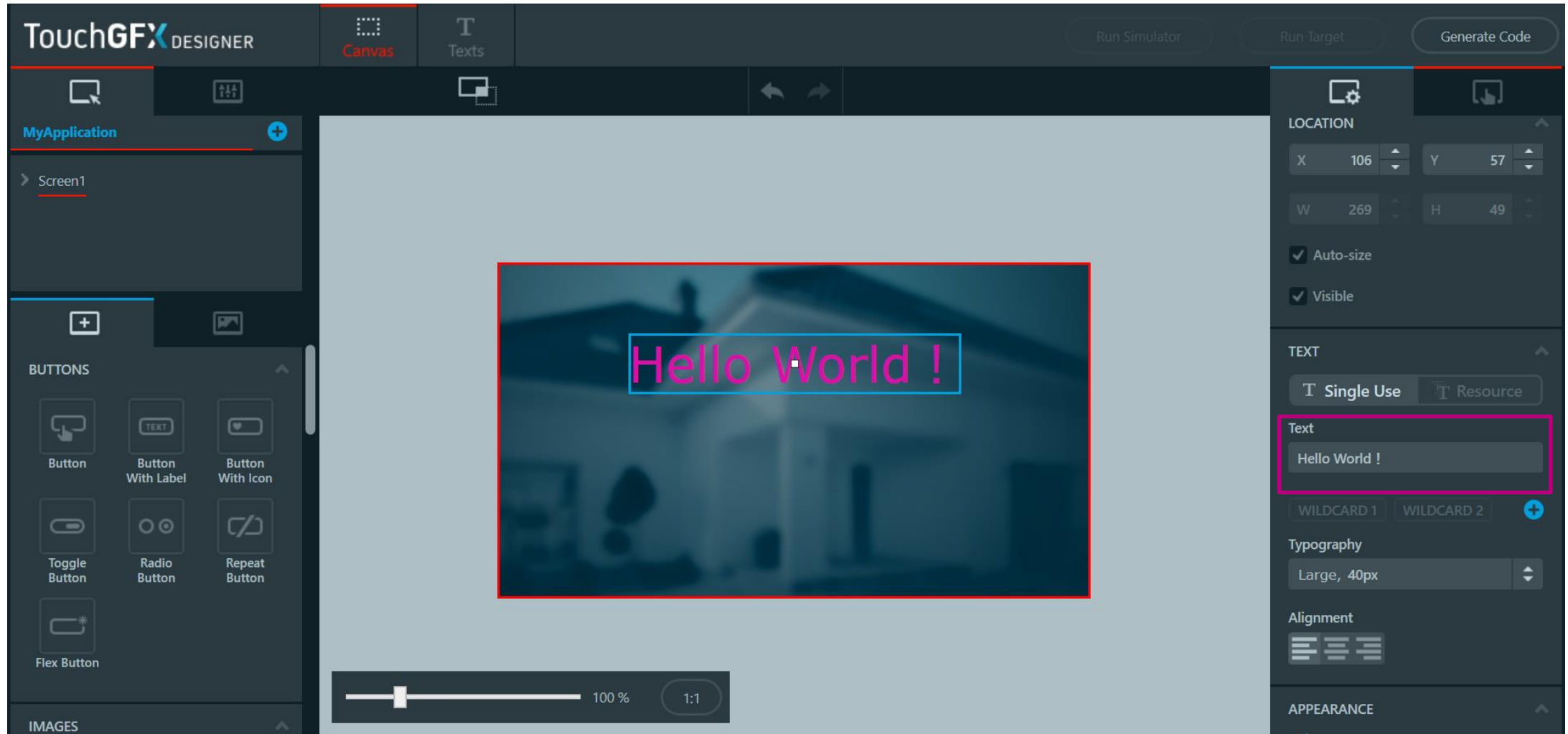


选择No Style



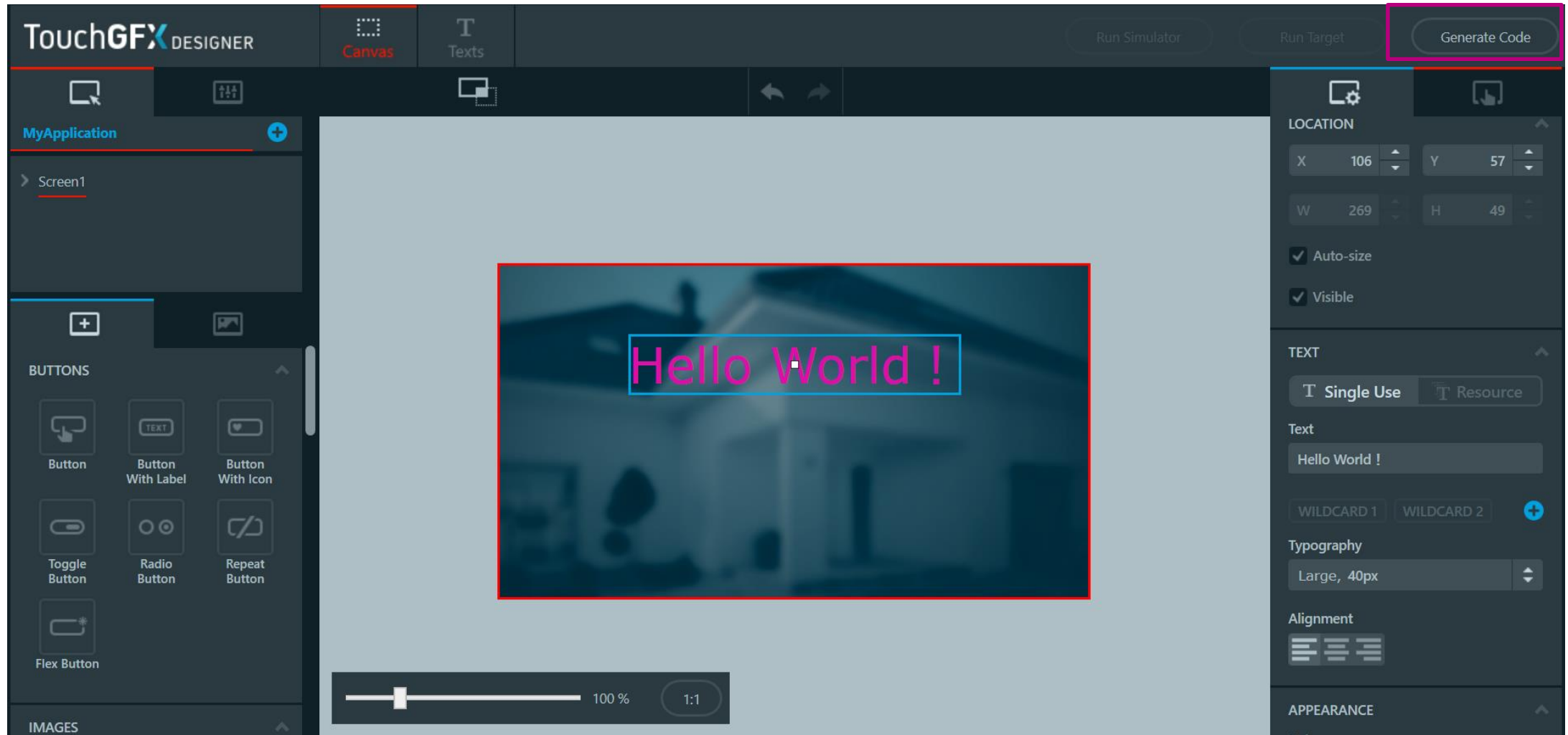
添加TEXT控件

14



10.生成代码:

15



11. 进入EWARM目录，用IAR8.x打开生成的工程：

16

Windows (C:) > TouchGFXProjects > MyApplication2

Name	Date modified	Type	Size
Core	4/12/2019 2:51 PM	File folder	
Drivers	4/12/2019 2:51 PM	File folder	
EWARM	4/12/2019 2:51 PM	File folder	
Middlewares	4/12/2019 2:51 PM	File folder	
TouchGFX	4/12/2019 2:51 PM	File folder	
.mxproject	4/11/2019 3:35 PM	MXPROJECT File	19 KB
MX HelloWorld_CubeMX.ioc	4/11/2019 3:34 PM	STM32CubeMX	23 KB
STM32F746_GUI_Hands_On.pdf	4/10/2019 4:19 PM	Adobe Acrobat Docu...	416 KB
STM32F746_GUI_Hands_On.txt	4/10/2019 4:19 PM	Text Document	8 KB

12.编译/下载到目标板，既可以看到运行结果：

17



谢谢

