

# DPC2020 Workshop Requirements

Developers attending the pre-conference Harmony Core workshop must bring their own laptop computers, as well as all of the prerequisite software that is required to complete the workshop.

## Development Environment Requirements

The workshop will require the following basic development environment components:

- **Visual Studio 2019** with latest updates installed
  - Unfortunately, .NET Core development in Visual Studio 2017 is not a very pleasant experience, so despite the fact that VS 2017 is still supported by Synergy/DE, it can't be used for this workshop.
- **Synergy/DE 11.1.1c**
  - Synergy Development Environment (SDE) x86
  - Synergy Development Environment (SDE) x64
  - Synergy DBL Integration for Visual Studio (latest developer build)
  - A local license manager with Synergy/DE 11 keys installed
- **Microsoft .NET Core SDK** (latest version). At the time of writing, the latest available version is 3.1.102 and can be obtained from <https://www.microsoft.com/net/download>.
- **CodeGen** (latest version). At the time of writing, we require version 5.4.8, but please check <https://github.com/Stevelves/CodeGen/releases> shortly before the conference begins and ensure you have the latest version installed.
- **Postman**, a free HTTP testing tool that you can download from <https://app.getpostman.com/app/download/win64>

## Synergy Licensing Requirements

The license keys required to complete the tutorials are

- RUN11
- WRUN11
- PSW11
- PSDE11

## Verifying Your License Server Installation

If your system has a local Synergy license server with these keys installed, you already have what you need. To verify, open a command prompt and type the following commands:

```
CALL "%SYNERGYDE64%\DBL\DBLVARS64.BAT"  
LMU
```

Verify that the first line of the LMU output begins with "Network Server on Port," make sure you see the required license keys in the list of installed keys, and for each key, verify that if an expiration date is specified (in YYYYMMDD format in the final column), it's **later than 20200522**.

## Verifying Your 32-bit License Configuration

For development systems with a local license server installation, the 32-bit environment should be configured to use the local 64-bit license server. To verify, open a command prompt and type the following commands:

```
CALL "%SYNERGYDE32%\DBL\DBLVARS32.BAT"  
LMU
```

Verify that the first line of the LMU output begins with "Network Client with Server LOCALHOST" (or if not LOCALHOST, then the name or IP address of your local machine).

## MINIMUM Hardware Requirements for Visual Studio

- 1.8 GHz or faster dual-core processor
- 4 GB of RAM
- Hard disk space: Minimum of 800 MB up to 210 GB of available space, depending on features installed; typical installations require 20-50 GB of free space
- Hard disk speed: To improve performance, install Windows and Visual Studio on a solid-state drive (SSD)
- Video card that supports a minimum display resolution of 720p (1280 by 720); Visual Studio will work best at a resolution of WXGA (1366 by 768) or higher

## RECOMMENDED Hardware Requirements for Visual Studio

- 2.5 GHz or faster quad-core processor or better
- 8 GB of RAM or better
- We strongly recommend systems running with solid-state storage
- We recommend a video resolution of 1080p (1920 x 1024) or higher

## Operating System Requirements

In order to run Visual Studio 2019, you must be running one of the following supported operating systems:

Operating System	Specific Requirements
Windows 10	Windows 10 version 1703 or higher Home, Professional, Education, and Enterprise (LTSC and S are not supported)
Windows Server 2019 or 2016	Standard and Datacenter
Windows 8.1	With Update 2919355 Core, Professional, and Enterprise
Windows Server 2012 R2	With Update 2919355 Essentials, Standard, and Datacenter

## Additional Requirements

- The user account that you log in to must have administrative rights for the local computer. If you do not have admin rights to be able to install new software, you will not be able to complete the workshop.
- During the workshops, you will be required to download and install components from various trusted internet locations, such as GitHub.com and NuGet.org. Therefore, you'll need Wi-Fi internet capability. (A Wi-Fi network will be available at the venue.)

## Suggestions

In previous years, it has become apparent that some developers are not accustomed to working on laptops, which typically have smaller keyboards, smaller screens, and touchpads. If you fall into this category, we recommend that you consider bringing the following USB or wireless devices:

- Full-size keyboard
- External mouse

Please **do not bring external monitors**, as there may not be enough desk space, and it's likely that the presence of desktop monitors would block the view of others.