

# MANDO SDK Beta

## INSTALL GUIDE

**IntervalZero**



MANDO SDK Install Guide

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# 1

## Software Requirements

This chapter lists software requirements for MANDO Software Development Kit (SDK).

**NOTE:** This SDK installation does not include MANDO Runtime. To run real-time applications, you must install the separate Runtime component. See the *MANDO Runtime Install Guide* for more information.

## Operating System Requirements

MANDO SDK is supported on any 64-bit operating system.

**NOTE:** MANDO SDK cannot be installed on a 32-bit operating system.

## Microsoft Visual Studio Requirements

MANDO SDK requires that you have Microsoft Visual Studio 2022 or 2019 installed if you wish to build MANDO programs with the Visual Studio IDE.

- **Visual Studio 2022 LTSC** (Enterprise, Professional, and Community editions supported)

**IMPORTANT!** The MANDO SDK Beta requires the **Desktop development with C++** Visual Studio 2022 workload.

If this workload is not currently installed for Visual Studio 2022, you must manually install it using the appropriate Visual Studio installer file (`vs_<edition>.exe`). For example, `vs_professional.exe`. To do this, follow the steps below:

1. Browse for and open the Visual Studio 2022 installer file (`vs_<edition>.exe`).
2. Under **Workloads / Windows**, select **Desktop development with C++**.
3. Under **Summary**, make sure that the optional feature of this workload **MFC and ATL support (x86 and x64)** is selected.
4. Click **Install**.
5. After the new workload is installed, click **Launch**.

**NOTE:** If the above workload is not installed, projects and samples created with the Mando Beta application templates will not build.

**IMPORTANT!** Mando application templates require the Windows 10 SDK version 2004 (10.0.19041.0) or later, which is included in the **Desktop development with C++** Visual Studio 2022 workload.

- **Visual Studio 2019 Version 16.11** (Enterprise, Professional, and Community editions supported)

**NOTE:** MANDO SDK requires the **Desktop development with C++** Visual Studio 2019 workload.

If this workload is not currently installed for Visual Studio 2019, you must manually install it using the appropriate Visual Studio installer file (`vs_<edition>.exe`). For example, `vs_professional.exe`. To do this, follow the steps below:

1. Browse for and open the Visual Studio 2019 installer file (`vs_<edition>.exe`).
2. Under **Workloads / Windows**, select **Desktop development with C++**.
3. Under **Summary**, make sure that the optional feature of this workload **MFC and ATL support (x86 and x64)** is selected.
4. Click **Install**.
5. After the new workload is installed, click **Launch**.

**NOTE:** If the above workload is not installed, projects and samples created with the MANDO application templates will not build.

**NOTE:** The MANDO application templates require a Windows 10 SDK version, which is not included in the Visual Studio 2019 installation by default. You must manually select the Windows 10.0 SDK option during installation of Visual Studio 2019.

## Administrator Privileges

Administrator privileges are required for installing and uninstalling the MANDO SDK product.

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## Installation

### Before You Begin

Before you begin the installation, do the following:

- Verify that your configuration meets the requirements described earlier in this document.
- Ensure that you have administrator privileges on the system.
- Install Microsoft Visual Studio (see [Software Requirements](#) for supported versions). This is required if you plan to use supported features.
- If you have previously installed Mando Alpha SDK, please uninstall it before installing.

**IMPORTANT!** A *Typical* installation of Visual Studio 2022 or 2019 does not include the Visual C++ programming language required by the MANDO project wizard. If the Visual C++ feature is not installed, the MANDO project wizard fails with an exception. You can add the Visual C++ feature to Visual Studio 2022/2019 via Programs and Features in the Windows Control Panel.

- Exit all Windows programs, including any open instances of Visual Studio.

# Installation Instructions

## About the Environment Variable

*MANDOSDKDIR* indicates the pathname of the directory containing the MANDO SDK.

For more information, see [System Modifications During Installation](#).

## About the VSIX Package

MANDO SDK installs the VSIX package for Visual Studio 2022 and 2019.

**NOTE:** Installation of VSIX packages can take a considerable amount of time.

For more information on VSIX packages, see [VSIX Packages Installed with the Mando SDK](#).

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## TO INSTALL MANDO SDK:

1. Download the zip file `MandoSDKBetaSetup.zip` from the MANDO download site.
2. Extract the contents of the zip file.
3. Double-click the self-extracting executable `MandoSDKBetaSetup.exe`.
4. Click **Next** in the IntervalZero MANDO installation Start window.
5. Read the End User License Agreement, select **I accept the terms in the license agreement** and then click **Next**.
6. Optionally, on the Destination Folder screen, choose a destination location other than the default:  
`<InstallDrive>\Program Files\IntervalZero\Mando SDK\`
7. Click **Next** in the Destination Folder screen.
8. In the Custom Setup screen, optionally select the features you want to install, and then click **Next**.
9. Click **Install** to begin the installation.
10. Click **Finish** in the Installation Completed screen.



# VSIX Packages Installed with Mando SDK

MANDO SDK installs the following VSIX package to the folder <InstallDrive>\Program Files\MANDO SDK\VSExtensions\VSExtensions:

- `MandoVSSupport.vsix` – IntervalZero Real-Time Debugger and templates for creating Mando RTSS applications and RTDLLs for Visual Studio 2022 (requires Visual Studio 2022 to be selected in the SDK installer)
- `MandoVSSupport2019.vsix` – Templates for creating MANDO real-time applications and RTDLLs for Visual Studio 2019 (requires Visual Studio 2019 to be selected in the SDK installer)

If you choose to install Visual Studio 2019, you can run the corresponding MANDO Beta VSIX package to install its functionality in Visual Studio without having to re-install MANDO SDK Beta in its entirety. This is typically useful in the scenario where support is needed for a supported version of Visual Studio that was installed after MANDO SDK Beta was installed.

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## TO INSTALL THE REAL-TIME DEBUGGER AND TEMPLATES FOR VISUAL STUDIO 2022:

Run the VSIX package `MandoVSSupport.vsix`.

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## TO INSTALL TEMPLATES FOR VISUAL STUDIO 2019:

Run the VSIX package `MandoVSSupport2019.vsix`.

# Uninstalling

## Performing the Uninstall

If you need to uninstall any of the MANDO components, perform the steps described below.

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### STEPS:

1. Close Microsoft Visual Studio if it is open.
2. Navigate to the **Windows Control Panel**.
3. Under *Programs*, click **Uninstall a Program**.
4. Select the **MANDO SDK Beta** program and click **Uninstall**.
5. Click **Yes** to confirm.
6. Click **Finish** once the installation is complete.

# Next Steps

Once you've successfully installed MANDO, we recommend you review the MANDO SDK product Help available from the Start menu. See *Getting Started* for information on how to create a real-time application (RTProcess) using the MANDO Application Wizard in Microsoft Visual Studio.

# Appendix A

## System Modifications During Installation

The following table describes the system modifications that are made during the MANDO SDK installation.

### System Modifications During Installation

Name	Description
MANDOSDKDIR	This environment variable contains the path to the directory containing MANDO SDK.

# Getting Support

For support of this version of MANDO SDK, please contact [BetaProgram@intervalzero.com](mailto:BetaProgram@intervalzero.com).

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