

Description: An introduction to configuring client-side speech recognition for GraphWorX64 and the MobileHMI Universal Windows Platform (UWP) app.

General Requirements:

- Basic knowledge of GraphWorX64.
- For MobileHMI, basic knowledge of the MobileHMI app.
- A Windows 10 system with working speakers and microphone.

Introduction

On Windows 10 devices, GraphWorX64 or the MobileHMI UWP app can use voice commands to trigger pick actions on a display. This can allow users to interact with their displays without needing to touch a screen or a mouse. It can be essential in clean environments such as a hospital, in places where operators are required to wear bulky gloves, or when operators must use both hands for some operation while interacting with a display.

As of version 10.96, voice support requires Windows 10 for both GraphWorX64 and the MobileHMI app.

For information on how to utilize voice commands with an external device, such as Cortana, Alexa, or Google Home, see the *GENESIS64 – Voice Machine Interface* application note.

Enabling Voice Support in GraphWorX64

The MobileHMI Universal Windows Platform (UWP) app always has voice support enabled, however GraphWorX64 clients will not listen for voice commands by default. To enable this feature, follow the steps below. This must be done on every GraphWorX64 client where you want to use voice support.

This is necessary for the runtime support only. You do not need to perform these steps on a system where you are simply configuring a display to use on another client, and you do not intend to actually use the voice support on this system.

1. Open **GraphWorX64**.
2. Go to the **Preferences** panel. (If it is not visible, go to the **View** menu and select **Preferences** in the **Show/Hide** section.)
3. Select **Runtime Options**.
4. In the **NuiDevice** section, set **EnableSpeechRecognition** and set it to **True**. This will tell GraphWorX64 that it must listen for voice commands when in runtime.

Adding Voice Commands and Feedback

To define what voice command triggers what action, we need to create a pick action and associate that pick action with a voice command. These steps are an example of how to create such a pick action.

1. Open **GraphWorX64**.
2. Add a process point to your display.
3. Go to the **Dynamics** panel. (If it is not visible, go to the **View** menu and select **Dynamics** in the **Show/Hide** section.)
4. Set the **DataSource** to **localsim::Test**.
5. Add a button to your display.
6. Go to the **Dynamics** panel.
7. Set **Command** to **Write Value**.
8. Set **DataSource** to **localsim::Test**.
9. Set **OnUpValue** to this expression:

```
x={{localsim::Test}}+1
```

10. Set **VoiceCommand** to **Add one**. (Do not include the period.) This will be the phrase used to activate this pick action.

Note: The voice command must contain only letters and white space characters. No digits are allowed. Type out numbers ("one" instead of "1") when needed.

11. Set **VoiceFeedback** to **Adding one to test value**. (Do not include the period.) This is the audible feedback you should hear to indicate that the command has executed properly.
12. If you haven't already, follow the steps in the "
13. For information on how to utilize voice commands with an external device, such as Cortana, Alexa, or Google Home, see the *GENESIS64 – Voice Machine Interface* application note.
14. Enabling Voice Support in GraphWorX64" section. Alternatively, save the display and open it on a system where you have followed those steps.
15. Go into runtime and say, **add one** into your system's microphone. You should see your process point get incremented by one and hear the audible feedback.

This was one example of how one might configure a voice-controlled pick action. This example used a button, but any pick action on any object can be used.

It is recommended to make sure your voice command text is visible on the screen somewhere as a reminder to your operators what voice commands are available to them.