

NcCloud Assistant User Manual

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1 About NcCloud

NcCloud, independently developed by **Shanghai Weihong Electronic Technology Co., Ltd** (hereinafter called **WEIHONG**), is an IIoT (Industrial Internet of Things) solution. Based on the monitoring of CNC devices, **NcCloud** offers a solution to production management, device management and business innovation.

NcCloud includes three parts:

NcCloud Assistant

A built-in application in CNC controller. It can provide data interface and communication protocols for the CNC device networking.

NcCloud DNC

A standard solution to CNC device networking in workshop. It includes following functions:

- Standard DNC functions
- Providing data interface for enterprise information system

NcCloud Service

Based on public cloud, it provides remote monitoring of the CNC devices. In addition, it assists production management and equipment maintenance. It also can provide data interface for third-party cloud and applications.

For production monitoring in different scenarios, **NcCloud Service** runs on two scenarios: [Web](#) and [WeChat](#).

You can register an account in either the official website or WeChat official account. The same account can be used on both Web and WeChat. And devices that has been monitored in either scenario can be shown in the other, in a real-time way.

2 Introduction to NcCloud Assistant

NcCloud Assistant is a component of NcCloud ecosystem. It is used to provide data interface and communication protocol.

Installation packages of the latest version of WEIHONG CNC software **NcStudio** have successfully integrated **NcCloud Assistant**. That is, **NcCloud Assistant** will be installed at the same time when **NcStudio** is installed, without additional attention.

Functions of **NcCloud Assistant** upgrade with the upgrading of **NcCloud Service** and **NcCloud DNC System**. Therefore, it is recommended to use the latest version of **NcCloud Assistant** to get full functions and compatibility.

Main functions of **NcCloud Assistant** include the following:

- Providing data interface

NcStudio Assistant can provide a data interface for data, instructions of MES (Manufacturing Execution System) in a local area network (LAN) of the end user. It supports communication protocols such as MTConnect, OPC UA and Modbus. It uses SQLite database to back up data locally.

This function needs authorization.

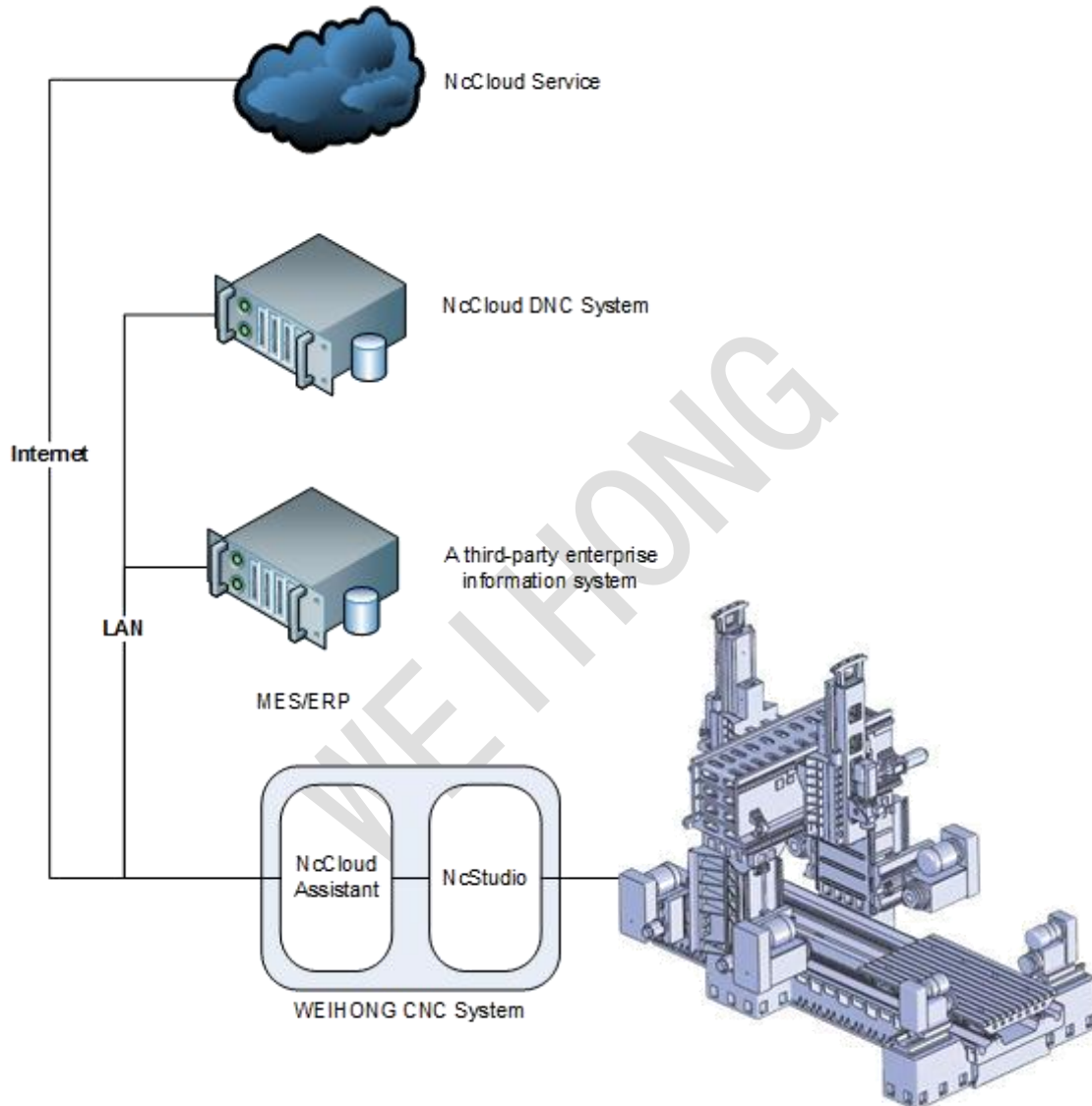
- Connecting CNC device to Internet

NcCloud Assistant decides whether to send data to **NcCloud Service** platform, and whether a **NcCloud Service** user can bind the device online.

System Architecture

See following figure for the architecture of **NcCloud Assistant**.

NcCloud Assistant acquires data and instructions from **NcStudio**, and transmits them to **NcCloud Service** and **NcCloud DNC System** or a third-party enterprise information system.



Related Information

To learn more about NcCloud DNC, please refer to:

[NcCloud DNC System User Manual](#)

To learn more about NcCloud Service, please refer to:

[NcCloud Service User Manual](#)

3 Installing NcCloud Assistant

Check operating system version and install NcCloud Assistant correctly.

3.1 Read First

- **NcCloud Assistant** has been embedded in NcStudio at factory. If you are not sure, please consult your sales or check the existence by yourself. Please refer to [How do I know if NcCloud Assistant has been installed in the controller?](#)
- If NcCloud Assistant is absent in your current NcStudio by default, it is recommended to upgrade NcStudio to the latest version.
- If NcCloud Assistant already exists in NcStudio, you can use directly, or download the latest version of **NcCloud Assistant** on [NcCloud Official Website](#) and upgrade, or directly install the latest version of NcStudio.

3.2 System Requirements

Before installing NcCloud Assistant, please confirm the following:

- NcStudio software has been installed.
If you are not sure or cannot install NcStudio, please turn to technical support.
- The version of operating system cannot be lower than the minimum version in the table below.

Operating system	Version
Windows 7	Service Pack 1
Windows 8	-
Windows 8.1	-
Windows 10	-
Windows Server 2003	Service Pack 2
Windows Server 2008	Service Pack 2
Windows Server 2008 R2	Service Pack 1
Windows Server 2012	-
Windows XP	Service Pack 3
Windows Vista	Service Pack 2

3.3 How-to

If NcCloud Assistant already exists in NcStudio, click **Start** → **All Programs** to find **NcCloud** folder. You can skip the installation.

If NcCloud Assistant cannot be found in CNC controller, do the following to install one:

1. Navigate to NcCloud official website (<https://nccloud.weihong.com.cn>), click **Download**, and type keyword **NcCloud Assistant**. Download the latest version of NcCloud Assistant installation package.
2. Open the installation package, install by following the instructions.

After successful installation, you can find **NcCloud** folder in the **Start** menu. Click **NcCloud Assistant** to open the following interface:


NcCloud Assistant V3.1.3

NC CLOUD

Cloud-based Service to Get Everything under Control

1st Follow NcCloud

Scan the QR Code with WeChat to follow the NcCloud.




2nd Add Device

Click "Production Monitoring" - "Add Device". (Registration required for first use.)



3rd Online Monitoring

Scan the QR Code or type the device No. to add the device. You can check the production and get latest online help anytime and anywhere.



Device No: WHNC-0000-CSGN-0004
Verification Code: 63754298

*Window will close in 29 min 33 sec.

F1 Network Off	F2 Disable Backup	F3	F4 Import Authorization	F5 Add Device	F6	F7 Close	F8
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Tip: Same steps for upgrading the version of NcCloud Assistant.

4 FAQs

This part mainly includes frequently asked questions that you may have about NcCloud.

4.1 How do I know if NcCloud Assistant has been installed in the controller?

To check whether NcCloud Assistant has been installed in current controller, do the following:

- For controllers: Check if there is a **NcCloud** button on the operation interface.
- For control cards: Click **Start** → **All Programs**, and check if there is a **NcCloud** folder.

4.2 What should I do when QR code and verification code cannot be displayed on the homepage of NcCloud Assistant?

Phenomenon

After **NcCloud Assistant** is started, QR code and verification code cannot be displayed successfully.

Cause

The controller has not been connected with Internet, or networking error.

Solution

Check the networking condition and confirm that the device is connected to Internet properly.

Cause

Failed to run applications as administrator.

Solution

- Run NcStudio as administrator.
- Run **NcCloud Assistant** as administrator.
- If the problem remains, wait for 30 seconds and press **F5** to refresh.

If QR code and verification code still fail to display, possible cause is bad network condition. You can do the following:

1. Open task manager and stop NcCloudAdapter.exe process.
2. Click **Start** → **All Programs** → **NcCloud**, and run **NcCloud Adapter** as administrator.
3. Restart **NcCloud Assistant**.

4.3 What should I do if NcCloud fails after restarting the computer?

Cannot start NcCloud after restarting the computer.

You can do the following:

- Check if NcCloudAdapter.exe process exists in task manager.
- If NcCloudAdapter.exe does not exist, click **Start** → **All Programs** → **NcCloud**, and run NcCloud adapter as administrator.

To avoid such problem next time, please check if **NcCloudFirstRun** is prohibited from automatic startup when the computer is started.

- If NcCloudAdapter.exe exists, please refer to [What should I do when QR code and verification code cannot be displayed on the homepage of NcCloud Assistant?](#).

4.4 What should I do if NcCloud local data service fails to work?

Unable to use NcCloud local data service.

You can do the following:

1. Click **Start** → **All Programs** → **NcCloud**, and run NcCloud local data service as administrator.
2. Run **NcCloud Assistant** as administrator, and press **F4** to import the authorization file again.

4.5 Is a twice authorization required when the device ID is changed or the controller installs a new operating system?

Yes.

An authorization file is exclusive to a device ID. Therefore, if the device ID is changed or the controller installs a new operating system, you need to ask for another authorization file and import it again.

4.6 Which features of NcCloud Assistant can be used without networking?

If the controller is offline, following functions of NcCloud Assistant can be used:

- Data authorization
- Data interface
- Data backup locally

To use cloud data interface of NcCloud, confirm that the device has connected to Internet, and network is well working.

4.7 Data was garbled when it is converted to .CSV file format.

Use **DB.Browser.for.SQLite** tool to export data from the database to a .CSV file. And unreadable characters appear in the .CSV file.

Cause

Database file of NcCloud is encoded in UTF-8. However, a .CSV file does not specify the encoding format. Therefore, if you open the file in Microsoft Excel in wrong encoding format, Chinese characters may be garbled.

Solution

Select the encoding format when you open the .CSV file.

4.8 Can I visit NcCloud DNC with a domain name?

Once NcCloud DNC system is deployed in working environment, users can access DNC by entering its IP address in any devices that are within the same network segment.

To simplify the IP address, you also can access DNC system with a domain name that corresponds to the IP address. Do one of the following:

Note: Assuming the IP address of NcCloud DNC is **192.168.12.79**.

- Add a parsing rule to enterprise network DNS server, that is, make the domain name equivalent to the IP address of DNC system.

Parse `dnc.weihong.com.cn` to `192.168.12.79`

- Modify hosts file.
 1. In the computer that you need to access DNC through browser, open hosts file as administrator.
Default path of the file is `C:\Windows\System32\drivers\etc\hosts`.
 2. Add the following line in hosts file:

`192.168.12.79 dnc.weihong.com.cn`

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