

Transferring to the Machine

Transfer programs and Unit setting parameters created by offline project to the PLC.

In this example, data is sent at the same time to various Units using the batch transfer function.

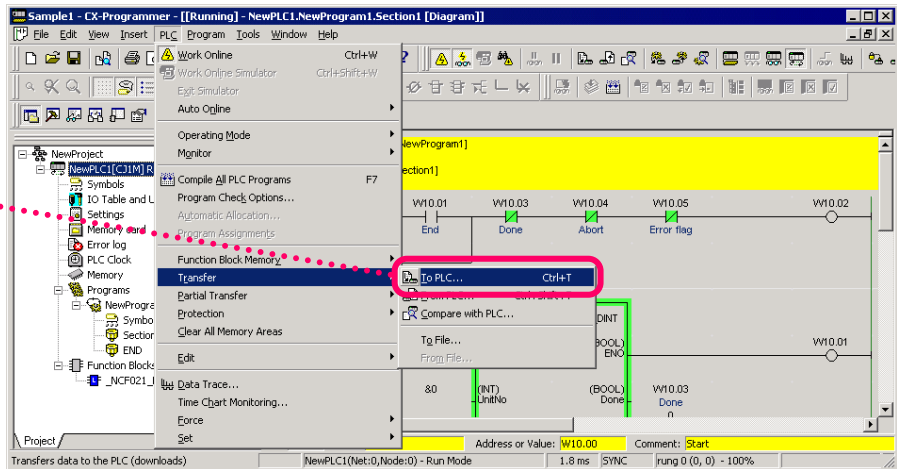
[Data to be sent]

CPU Unit: Ladder program and PLC System setting data, I/O Table data

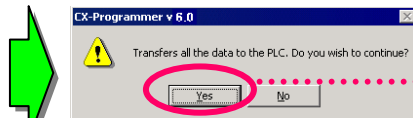
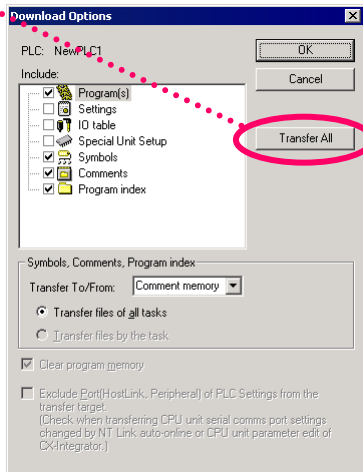
CPU Bus Units and Special I/O Units:

AD Unit: Range setting of inputs (1~5v / 4~20mA mode)

Select [PLC] > [Transfer] > [To PLC]

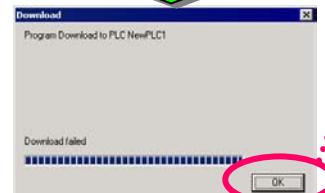


Click [Transfer All]



Click [Yes].

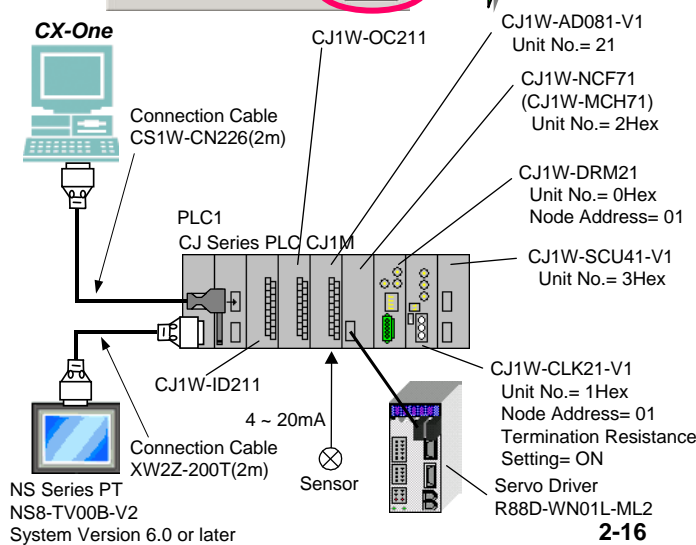
Program transfer starts.

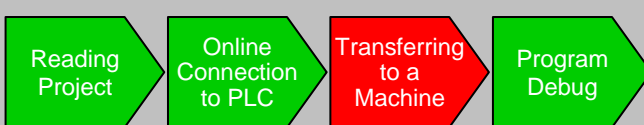


Click [OK].

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Program and configuration data are transferred at the same time to CPU Bus Units and Special I/O Units.





Then data is sent at the same time to NCF Unit and the servo driver connected to NCF Unit.

[Data to be sent]
 NCF Unit: Common parameters, axis parameters
 Servo Driver: Servo parameters

From CX-Programmer, display the I/O Table, then start CX-Motion-NCF by [Start Only].

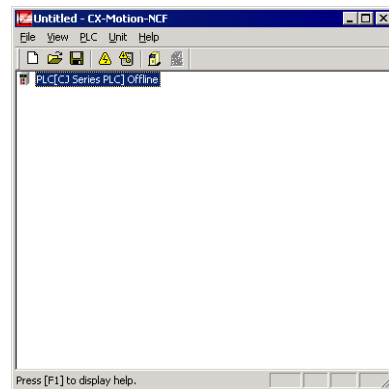
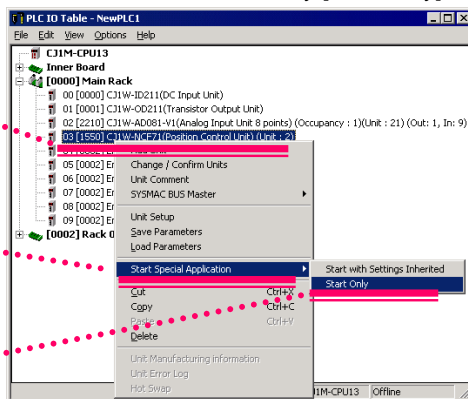
Right-click NCF Unit



Point [Start Special Application]



Click [Start Only]



Open a saved project and transfer all NCF Unit and servo driver parameters.

To prevent a servo driver operation using a ladder program, you must set the PLC to PROGRAM mode.

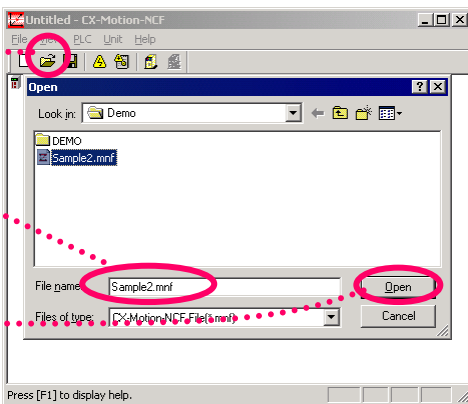
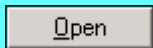
Click



Select "Sample2.mnf"



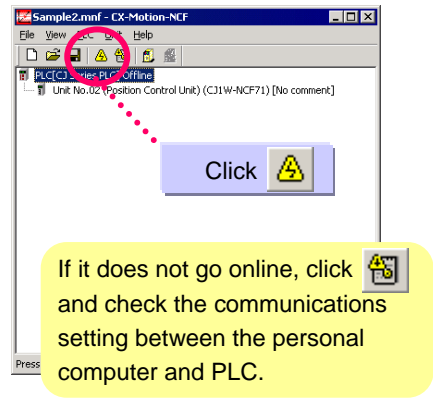
Click



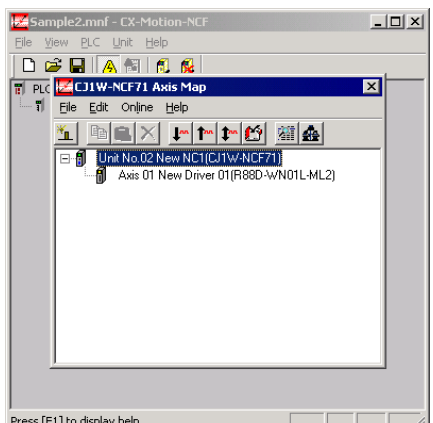
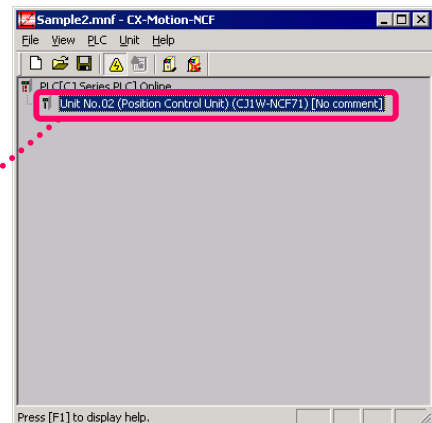
Click



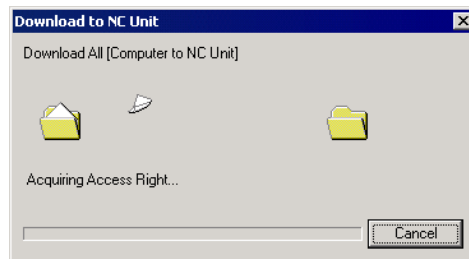
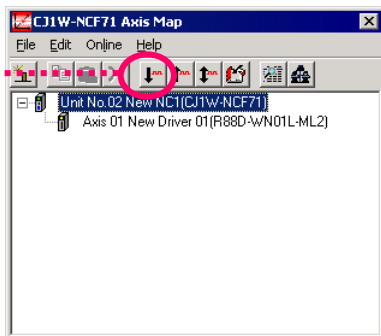
If it does not go online, click and check the communications setting between the personal computer and PLC.



Double-click NCF Unit



Click 

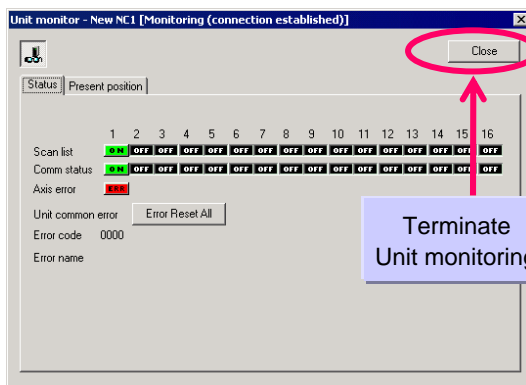
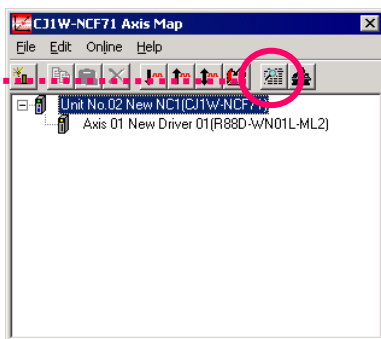


The Unit restart confirmation screen will be displayed during data transfer. Click the [OK] button after confirming safety. Also, in the case of communication was not established between the NCF Unit and the servo driver, confirm the axis number and restore power to the NCF Unit and servo driver.

When parameter transfer is completed, confirm that communications is performed normally and has not resulted in an error.

Monitor the NCF Unit. Confirm consistent scan list (axis configuration) and communications status and that no axis or common Unit error has resulted.

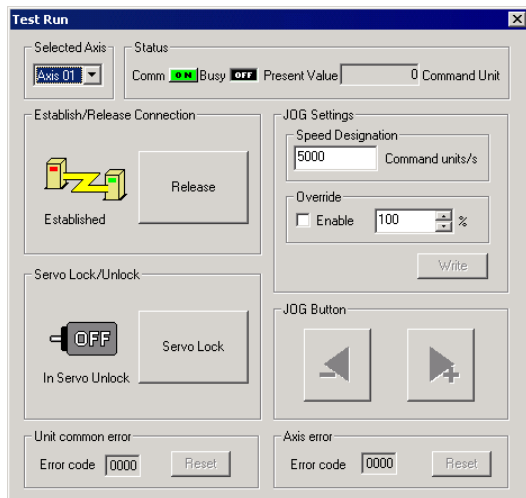
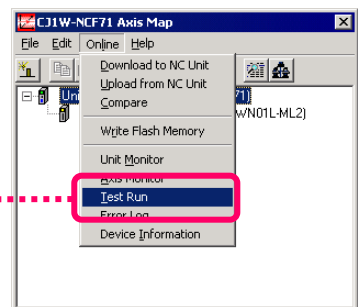
Click 

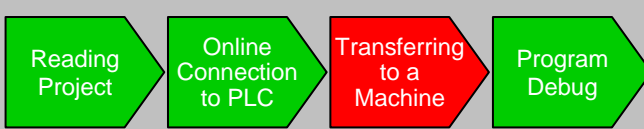


Terminate Unit monitoring.

Next, perform jog operation. Carefully read the displayed cautions, then perform the operation. To perform jog operation, it is required to establish a connection, servo lock, and jog setting.

Click [Online] > [Test Run]





When using the MCH Unit, transfer data from the CX-Motion-MCH to the MCH Unit and servo driver connected to the MCH Unit.

[Data to be transferred]

MCH Unit: parameter, position data, program, CAM data.

Servo driver: servo parameter

Display the I/O table from CX-Programmer and start CX-Motion-MCH with [Start Only]. (Refer to NCF Unit for starting from the I/O table.)

Open the saved project and transfer Unit parameter, position data, program, CAM data, and servo driver parameters to the MCH Unit.

To prevent a servo driver operation using a ladder program, you must set the PLC to PROGRAM mode.

Click

Select file .mnh



Click [Open]

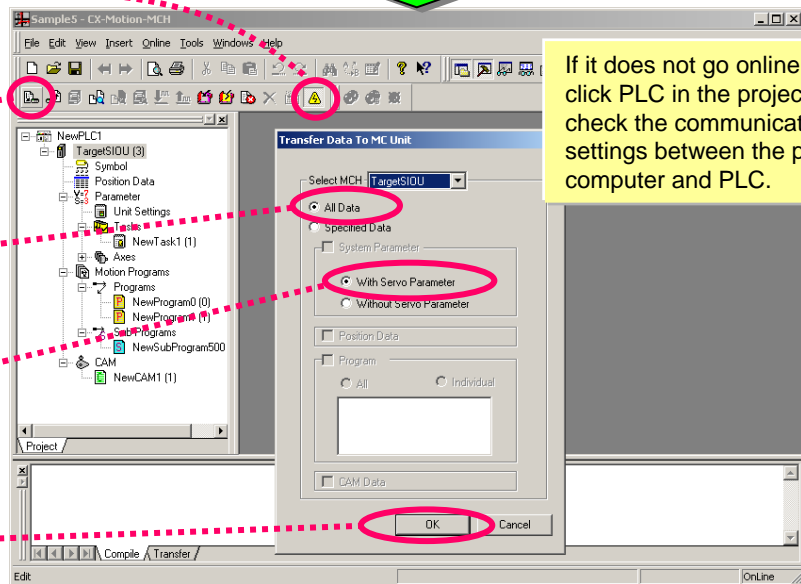
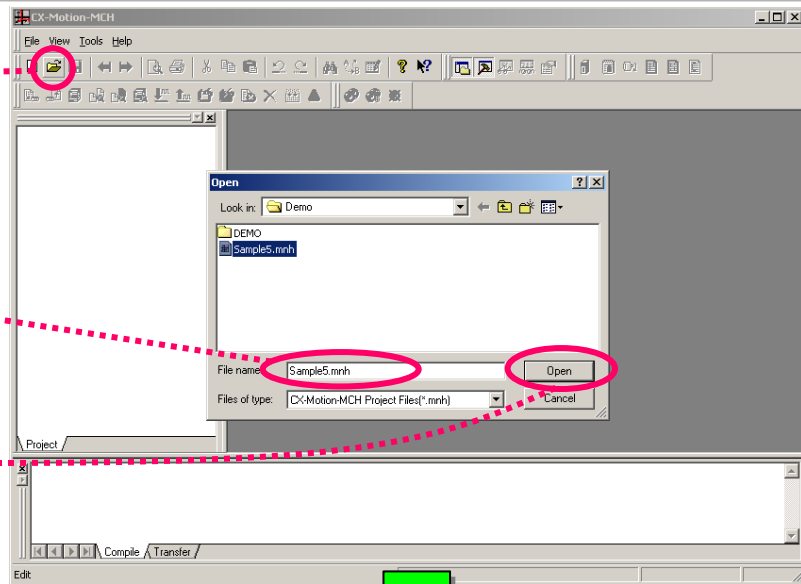
Click

Click

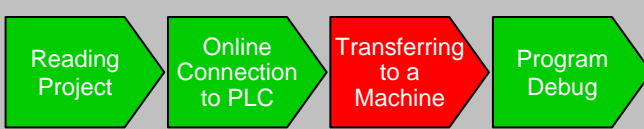
Select [All Data]

Select [With Servo Parameter]

Click [OK]



The Unit restart confirmation screen will be displayed during data transfer. Click the [OK] button after confirming safety. Also, in the case of communication was not established between the MCH Unit and the servo driver, confirm the axis number and restore power to the MCH Unit and servo driver.



Transferring NS screen data

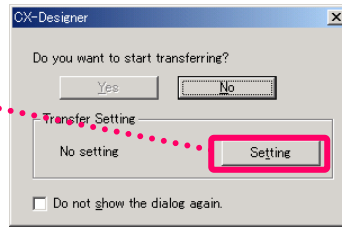
This section describes how to transfer screen data to the NS through PLC without changing cables.

From [Start] menu, select [Programs] > [OMRON] > [CX-One] > [CX-Designer] > [CX-Designer Ver.□] to start CX-Designer. (Or select [All Programs] > [OMRON] > [CX-One] > [CX-Designer] > [CX-Designer Ver.□].) Open a project saved in the previous section.

Select [Transfer]-[Transfer[To PT...]] from the [PT] menu.

Start NS transfer program

Click on **Setting**



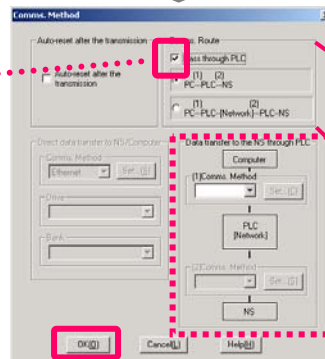
*Communication between the NS and the PLC must be established before transferring screen data through PLC without changing cables.

If "Connecting..." is displayed at the right bottom of the screen, use Auto Connection (See Chapter 3 1-3 "Setup NT Link") to connect the NS and the PLC before starting the following procedure.

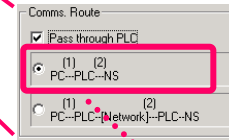
If the communication between the NS and the PLC has already been established, you do not need to perform the operation described above.

Setup communication route

Check "Pass thru PLC" in the Comm. Method window



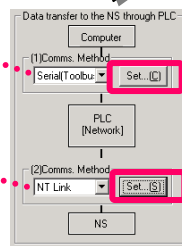
Check "Pass thru PLC" to activate the "PC → PLC → NS" route setting.



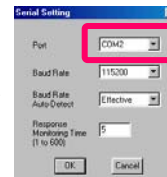
Select PC - PLC - NS.

Select Serial (Toolbus)

Setup "Data transfer to the NS through PLC".

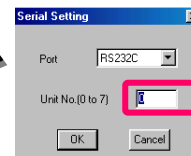


Select NT Link



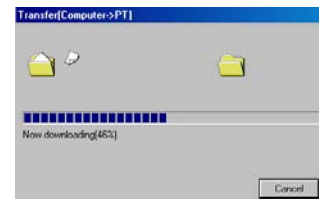
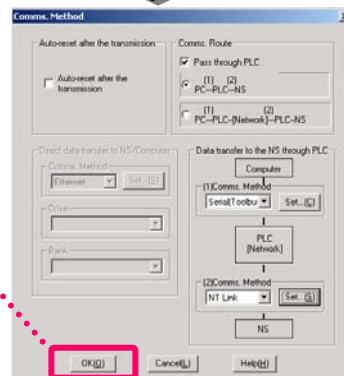
Set the serial port COM No. for PC → PLC connection. Then, press OK.

Press each setting button.



Enter NS Unit No. Then, press OK.

Transfer screen data



Screen data transfer is complete at 100%.