To all members of MECHATROLINK Members Association

About the version upgrade of
MECHATROLINK-III C1 master Access Driver (version 1.22)

1　Introduction

MECHATROLINK Members Association published MECHATROLINK-III C1 master access driver "version 1.22" as latest version on 13th May, 2015.

This upgrade is a countermeasure to the following problem.

・There is a possibility that cyclic communication can't be established in the MECHATROLINK-III system that adopts "version 1.21 or lower" C1master access driver.

This document will inform the countermeasure when the problem occurs with "version 1.21 or lower" C1 master access driver, and requests to upgrade C1 master access driver to the latest edition　(version 1.22, or above).
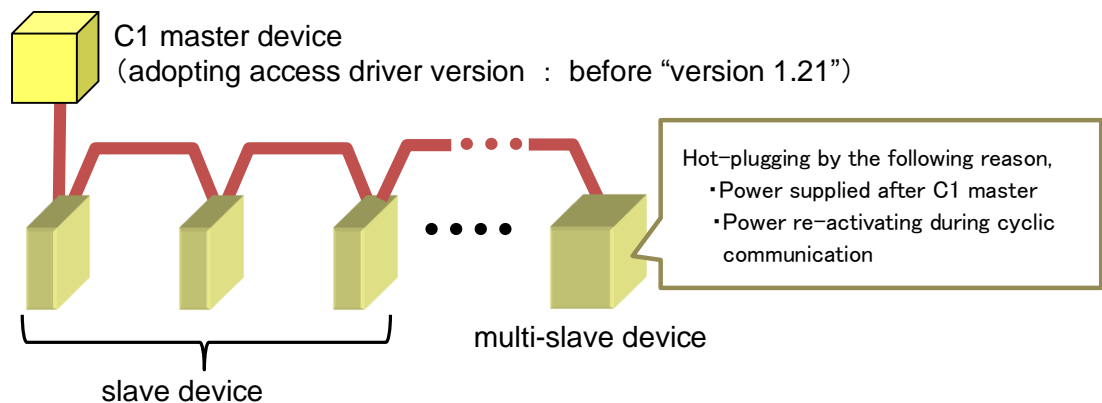
2　About the problem of C1 master access driver "version 1.21 or lower"

This section describes the problem that may occur when adopting "version 1.21 or lower" C1 master access driver.

2.1　The system configuration and the condition

In the MECHATROLINK-III system that connects a multi-slave device like as figure1, if the power supply timing of multi-slave device was delayed from C1 master power supply timing, then C1 master device is shifted to cyclic communication state first before the multi-slave device. Therefore C1 master device performs the hot-plug procedure to multi-slave device.

Then, there is a possibility that a problem occurs (described in "2.2 The problem which can occur") and can't start cyclic communication normally between C1 master device and multi-slave device.

C1 master device
(adopting access driver version : before "version 1.21")

Hot-plugging by the following reason,
・Power supplied after C1 master
・Power re-activating during cyclic communication

multi-slave device

slave device

Figure 1

2.2   The problem which can occur

There is a possibility that the communication delay measurement to multi-slave device can't normally complete, and cyclic communication isn't begun between the C1 master device and multi-slave device.

2.3   The countermeasures when the problem occurred

When the problem mentioned to "2.2 The problem which can occur" occurred, it's possible to restore MECHATROLINK-III cyclic communication by doing one of the following. (A or B)

A. Power supply re-activating of C1 master device.

B. After power off of the MECHATROLINK-III system (all devices),

and supplying power in the following sequence.

1. Supplying power to the slave devices.

2. Supplying power to the master device.

3   Request to upgrade C1master access driver

When the problem occurred, it's possible to restore communication using a countermeasure mentioned in "2.3 The countermeasure when the problem occurred," but please take care to upgrade the C1 master access driver to "version 1.22 or above" as a permanent measure.

＜How to upgrade to "version 1.22" from "up to and including version 1.21"＞

How to upgrade form "version 1.21" to "version 1.22"

Downloading C1 master access driver (version 1.22), and replacing only "little_jl100_def.h / big_jl100_def.h" file from the "version 1.21" driver with the file from the "version 1.22" driver.

How to upgrade from "version 1.20" to "version 1.22"

Downloading C1 master access driver (version 1.22), and replacing only "little_jl100_def.h / big_jl100_def.h" and "jl100micro.c" files from the "version 1.20" driver with the files from the "version 1.22" driver.

How to upgrade from "version 1.10 or lower" to "version 1.22"

Downloading C1 master access driver (version 1.22), and replacing files which are listed in the readme.txt included in the access driver.