

SBO TELNET 通讯



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关键词:

SBO, TELNET, Codesys 通讯

摘要:

本文介绍了如何使用 FESTO PLC 与 SBO 相机进行 TELNET 通讯。

目标群体:

本文仅针对有一定自动化设备调试基础的工程师，需要对 codesys 和 SBO 有一定了解。

声明:

本文档为技术工程师根据官方资料和测试结果编写，旨在指导用户快速上手使用 Festo 产品，如果发现描述与官方正式出版物冲突，请以正式出版物为准。

我们尽量罗列了实验室测试的软、硬件环境，但现场设备型号可能不同，软件/固件版本可能有差异，请务必在理解文档内容和确保安全的前提下执行测试。

我们会持续更正和更新文档内容，恕不另行通知。

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1 软硬件情况

软/硬件	版本
CPX-CEC-M1	Firmware: 1.3.10.0.1672
SBOI-Q-R3B-WB	Firmware: 3.4.3.45
CheckKon	4.3 cn
CheckOpit	3.2 cn
Codesys	V2.3
Festo Field Device Tool	

2 建立通讯

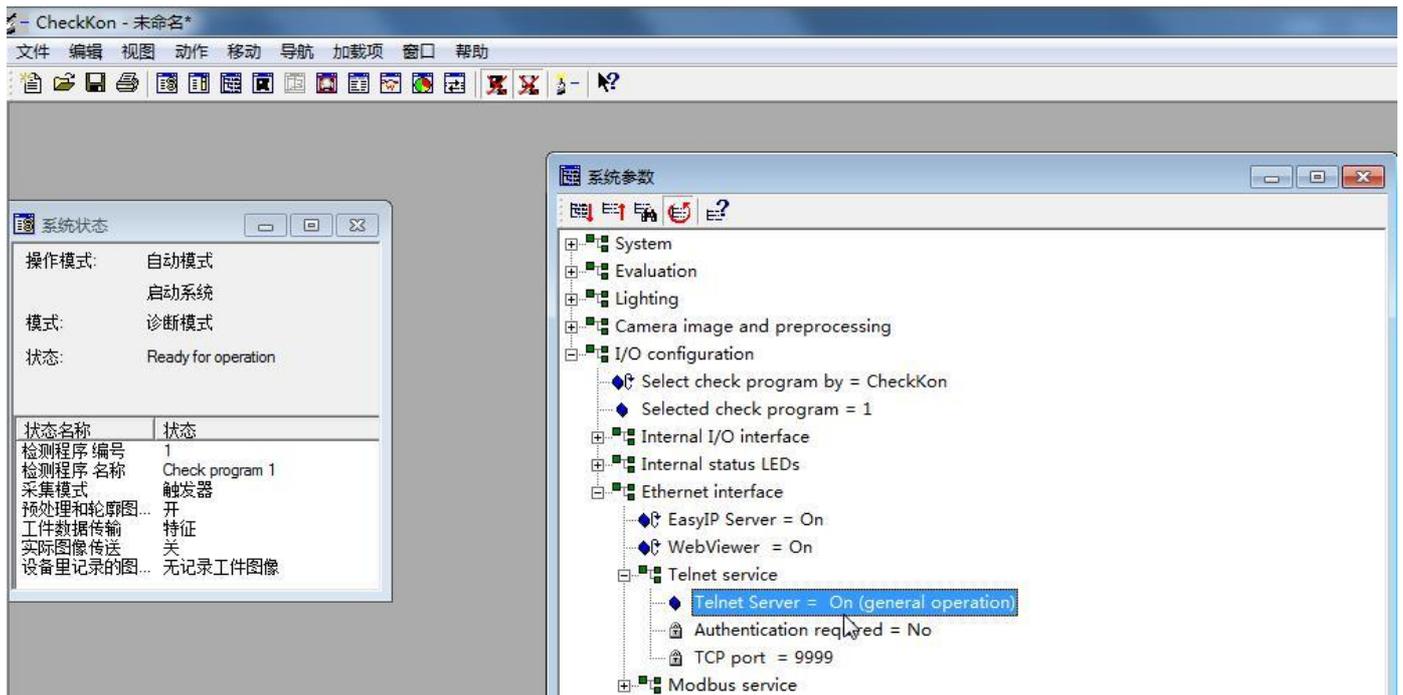
2.1 使用 FFT 将 SBO 和 CPX CEC M1 设置在同一网段下，同时也将电脑的 IP 也设置在同一网段下（192.168.100.xxx）。



The screenshot shows the Festo Field Device Tool interface. At the top, there are menu options: Actions, Extras, Help. Below the menu is a toolbar with various icons for actions like Scan, Firmware, Recovery, Favorite, etc. The main area displays a table with the following data:

	Device name	IP Address	Device type	MAC	
★	SBO Camera	192.168.100.11	SBO-Q	00:0E:F0:01:04:40	3.4.3.45
★	CPX-CEC	192.168.100.20	CPX-CEC-M1	00:0E:F0:0A:C3:68	1.3.10.0.1672

2.2 使用 CheckKon 连接 SBO，将系统参数里的 Telnet Server 设置为 ON general operation。



The screenshot shows the CheckKon software interface. On the left, there is a '系统状态' (System Status) window with the following information:

- 操作模式: 自动模式
- 启动系统
- 模式: 诊断模式
- 状态: Ready for operation

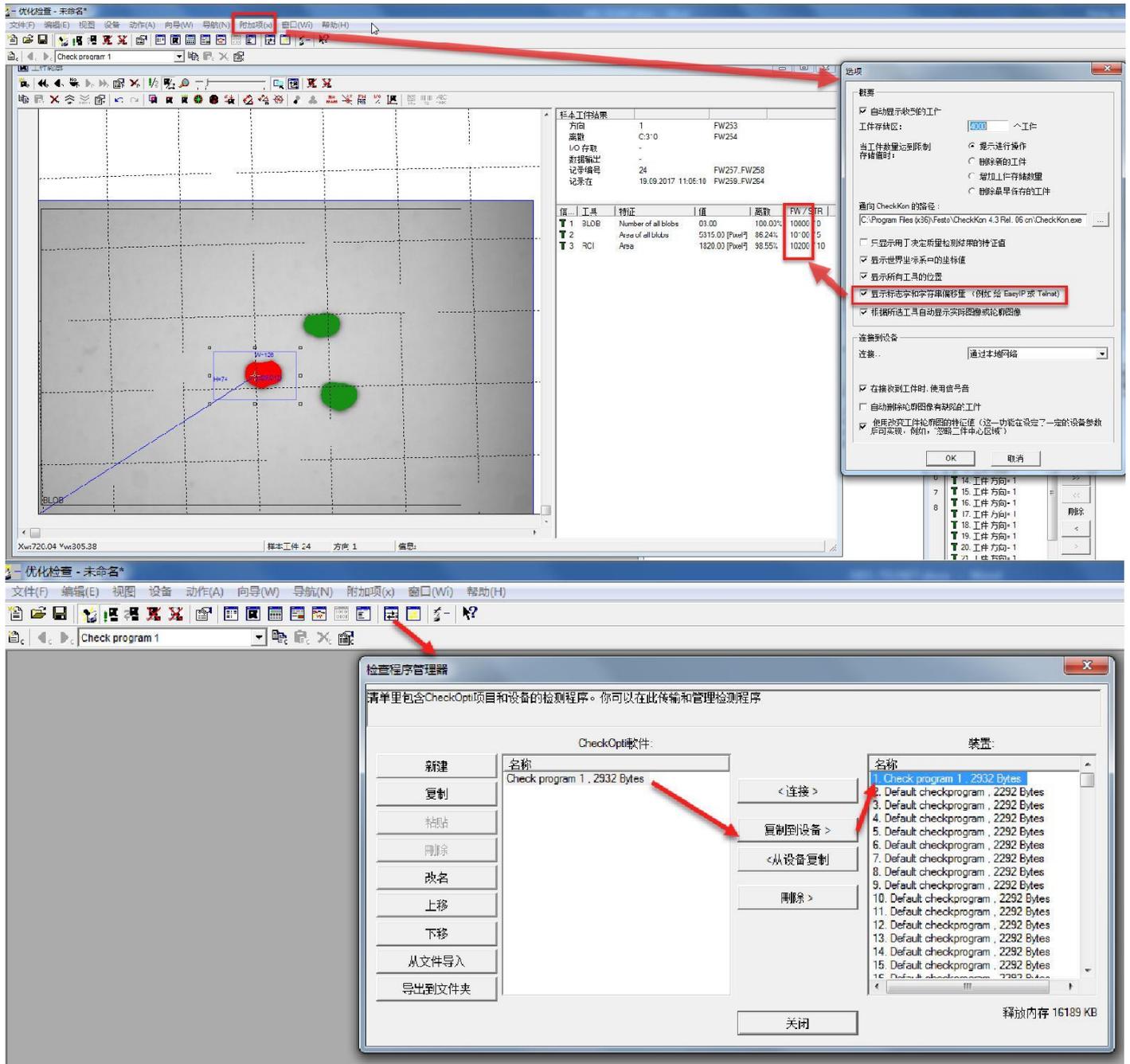
Below this is a table:

状态名称	状态
检测程序 编号	1
检测程序 名称	Check program 1
采集模式	触发器
预处理和轮廓图...	开
工件数据传输	特征
实际图像传送	关
设备里记录的图...	无记录工件图像

On the right, there is a '系统参数' (System Parameters) window showing a tree view of system settings. The 'Telnet service' is expanded, and the 'Telnet Server' is set to 'On (general operation)'.

- System
- Evaluation
- Lighting
- Camera image and preprocessing
- I/O configuration
 - Select check program by = CheckKon
 - Selected check program = 1
- Internal I/O interface
- Internal status LEDs
- Ethernet interface
 - EasyIP Server = On
 - WebView = On
 - Telnet service
 - Telnet Server = On (general operation)
 - Authentication required = No
 - TCP port = 9999
- Modbus service

2.3 切换到 Checkopti，使用检测工具识别物体数量，面积和重心等。同时需要在选项中勾选显示 Flagword。最后将程序下载到相机内。



2.4 在 FESTO 官网支持与下载中下载 Festo_CameraControl.lib，并安装到 Codesys 中

搜索本站 select language 联系我们 支持和下载 登录 注册 **FESTO**

中国 主页 重点产品 产品目录 工业应用 技术支持 教学培训 关于 Festo

搜索

SBO

概述 [0] 产品 [16] 文献 [13] **软件+驱动 [10]** 专业知识 [0] 新闻 [13]

描述	版本	过滤结果
FCT - Festo Configuration Tool SBO...-M Configuration and commissioning software for the high-speed-cameras SBOC-M and SBOI-M: Plugin SBO...-M Network V1.1.0.1118 2009/3/13	FCT 1.1.5 with Plugin SBO...-M Network 1.1.0.1118	→ 调试 → 文件和语言版本 ★★★★★ (4)
Target Support Package CODESYS SBO...-Q It allows configuration, commissioning and programming of the integrated CoDeSys run-time system of the intelligent cameras SBO...-Q with the software CoDeSvs	3.0.10 2011/4/4	→ 目标支持包 → 文件和语言版本 ★★★★★ (1)
Function blocks CODESYS SBO...-Q (Firmware 3.4/3.5) Function blocks for all CoDeSys 2.3 bases PLCs for communication with the Festo Compact Vision Systems SBO...-Q Supported firmware versions of the SBO...-Q are 3.4 and 3.5	1.10 2011/3/21	→ 功能块 → 文件和语言版本 ★★★★★ (2)

Supported systems:

CoDeSys provided by Festo - SBO_CPX-CEC-M1.pro

File Edit Project Insert Extras Online Window Help

Resources

- Global Variables
- library ANALYZATION.LIB 5.10.99 09:05:06: global
- library Festo_CameraControl.lib 18.11.14 15:08:50: g
- library IcoSfo.lib 24.11.08 19:07:15: global variables
- library MOTION\Drives\CAN\3S_CanDrv.lib 3.7.09:1
- library MOTION\Drives\CAN\FestoCANdrive.lib 22.1.14 23:02:25: g
- library MOTION\Drives\CAN\SM_Can.lib 22.1.14 23:02:25: g
- library MOTION\DummyDrive.lib 22.1.14 23:02:25: g
- library MOTION\SM_CNC.lib 19.3.14 17:41:56: glob
- library Motion\SM_DriveBasic.lib 22.1.14 23:02:25: g
- library MOTION\SM_FileFBs.lib 22.1.14 23:02:25: gl
- library MOTION\SM_PLCOpen.lib 19.3.14 17:41:56: g
- library Motion\SM_Startup_Diagnostic.lib 22.1.14 23:02:25: g
- library SysLibFile.lib 27.1.09 22:27:38: global variable
- library SysLibFileAsync.lib 27.1.09 22:27:38: global v
- library SysLibMem.lib 24.11.08 19:07:15: global vari
- library SysLibSockets.lib 27.1.09 22:27:38: global va
- library SysLibSocketsAsync.lib 27.1.09 22:27:38: glo
- library SysLibTime.lib 27.1.09 22:27:38: global vari
- library SysTaskInfo.lib 24.11.08 19:07:15: global vari
- library Util.lib 27.1.09 22:27:38: global variables

POUs

- Bistable Function Blocks
 - RS (FB)
 - SEMA (FB)
 - SR (FB)
- Counter
 - CTD (FB)
 - CTU (FB)
 - CTUD (FB)
- String Functions
 - CONCAT (FUN)
 - DELETE (FUN)
 - FIND (FUN)
 - INSERT (FUN)
 - LEFT (FUN)
 - LEN (FUN)
 - MID (FUN)
 - REPLACE (FUN)
 - RIGHT (FUN)
- Timer
 - RTC (FB)
 - TOF (FB)
 - TON (FB)

Additional Library ... Ins
Delete Del
Properties ... Alt+Enter

Open

Look in: CameraControl_lib_1_10

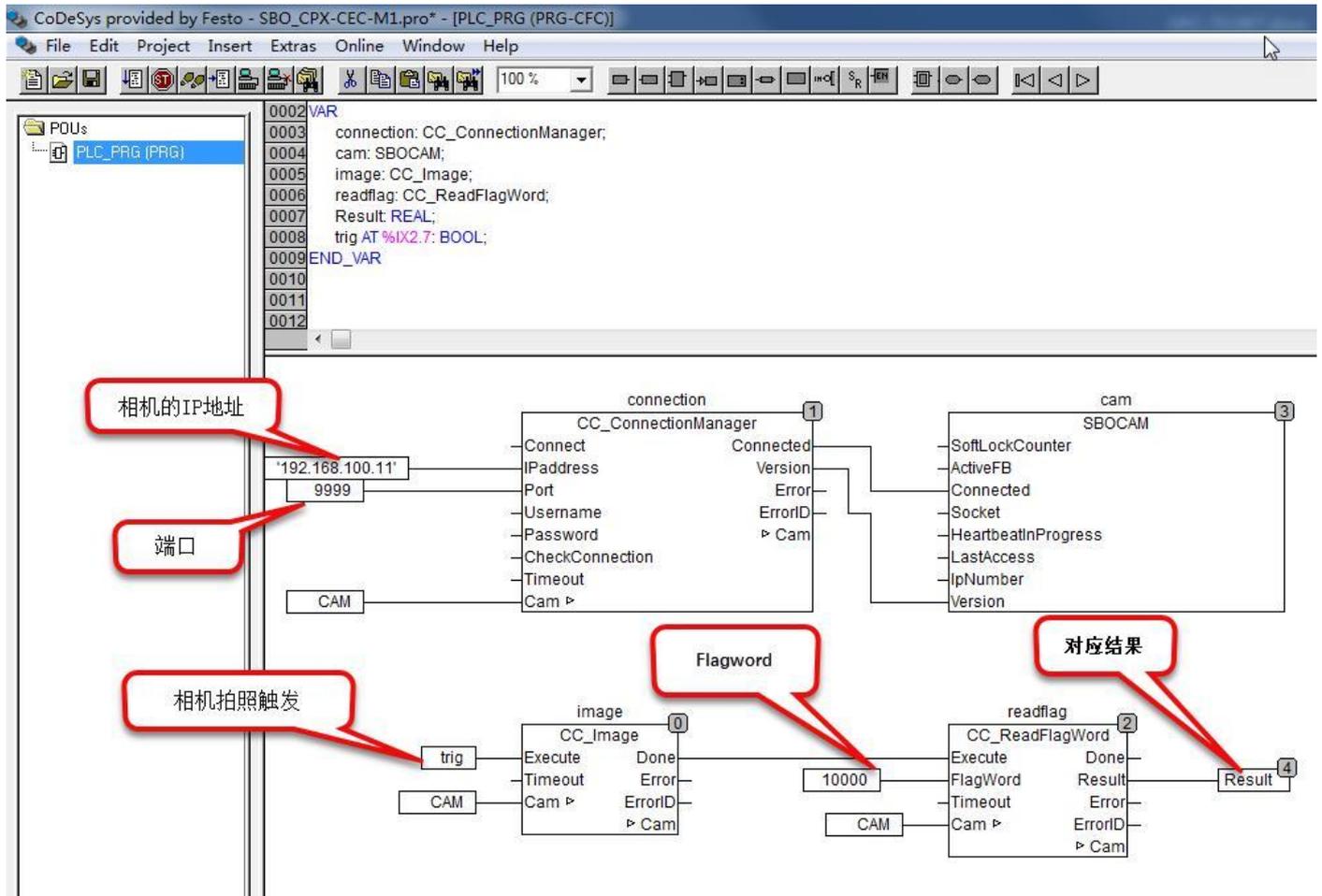
Name	Date modified
Festo_CameraControl.lib	2011/5/16 12:45

File name: *.lib Open Cancel

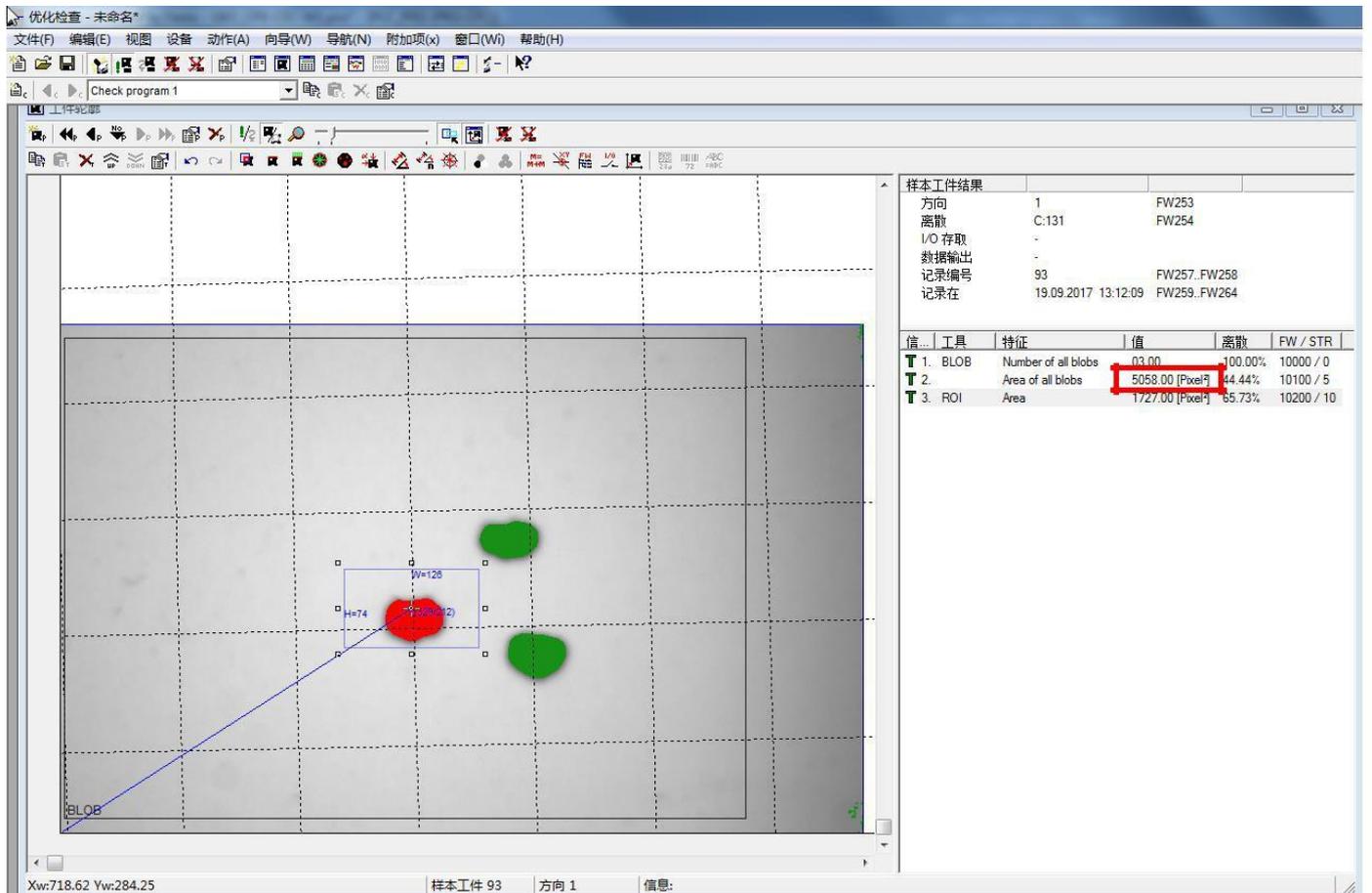
Files of type: CoDeSys provided by Festo Library (*.lib)

Library directory:

2.5 调用相应的功能块



2.6 测试：触发相机，读取对应 FW 10100 的值



CoDeSys provided by Festo - SBO_CPX-CEC-M1.pro* - [PLC_PRG (PRG-CFC)]

File Edit Project Insert Extras Online Window Help

100 %

POUs
PLC_PRG (PRG)

```

0001 connection
0002 cam
0003 image
0004 readflag
0005 Result = 5058
0006 trig (%IX2.7) = TRUE
0007

```

The diagram illustrates a sequence of function blocks in a PLC program:

- connection (1):** CC_ConnectionManager. Inputs: TRUE, 192.168.100.11, 9999, CAM. Outputs: Connected, Version (CS500TelnetInterface 0.1.1, SBOxQ Version: 3.4.3.45), Error, ErrorID, Cam.
- cam (3):** SBOCAM. Inputs: Connected, Version. Outputs: SoftLockCounter, Connected, Socket, HeartbeatInProgress, LastAccess, IpNumber, Version.
- image (0):** CC_Image. Inputs: trig, CAM. Outputs: Done, Error, ErrorID, Cam.
- readflag (2):** CC_ReadFlagWord. Inputs: Done (from image), 10100, CAM. Outputs: Done, FlagWord, Result (5058), Error, ErrorID, Cam.
- _RETURN (5):** Final output of the sequence.

The 'Result=5058' output from the readflag block is highlighted with a red box.