Rockwell Automation TechED™
Inspire. Educate. Innovate.

LISTEN. THINK. SOLVE.®

Studio 5000 Architect™
产品介绍

PUBLIC

Allen-Bradley · Rockwell Software

Rockwell Automation

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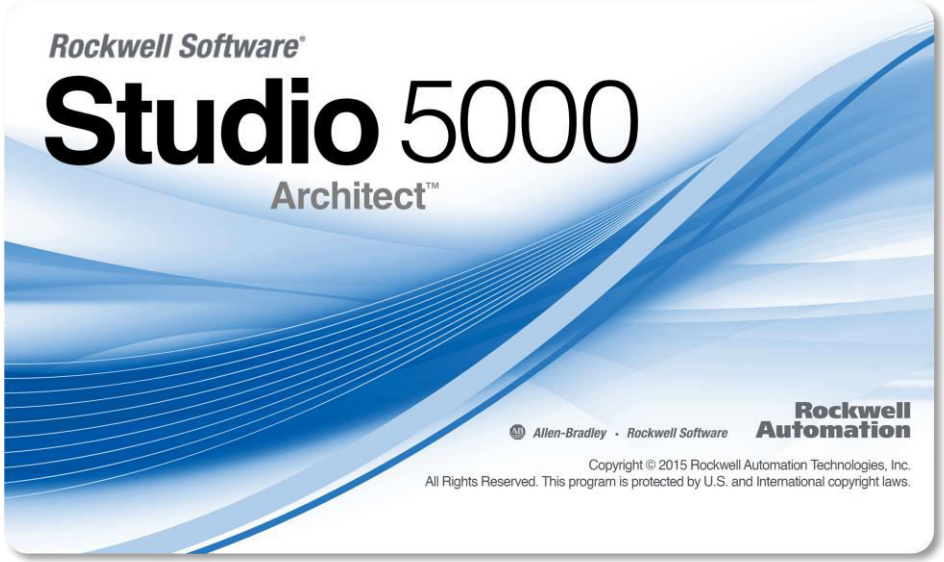

Studio 5000

Studio 5000 Architect™

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Studio 5000
构建和管理系统

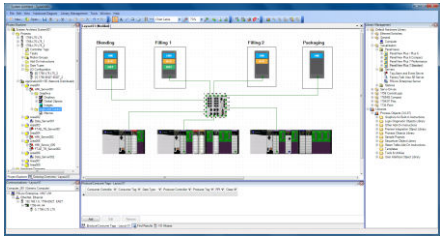
Rockwell Automation

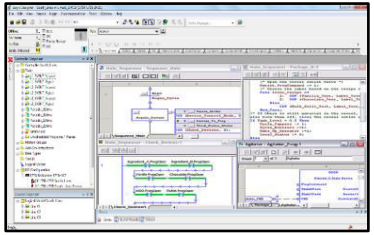
工程工具

- PDM / PLM
- mCAD
- eCAD
- P&ID
- Simulation
- OTS
- Modeling

Rockwell Software
Studio 5000

系统





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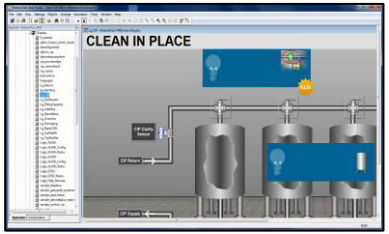

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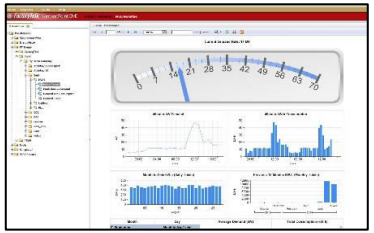

信息

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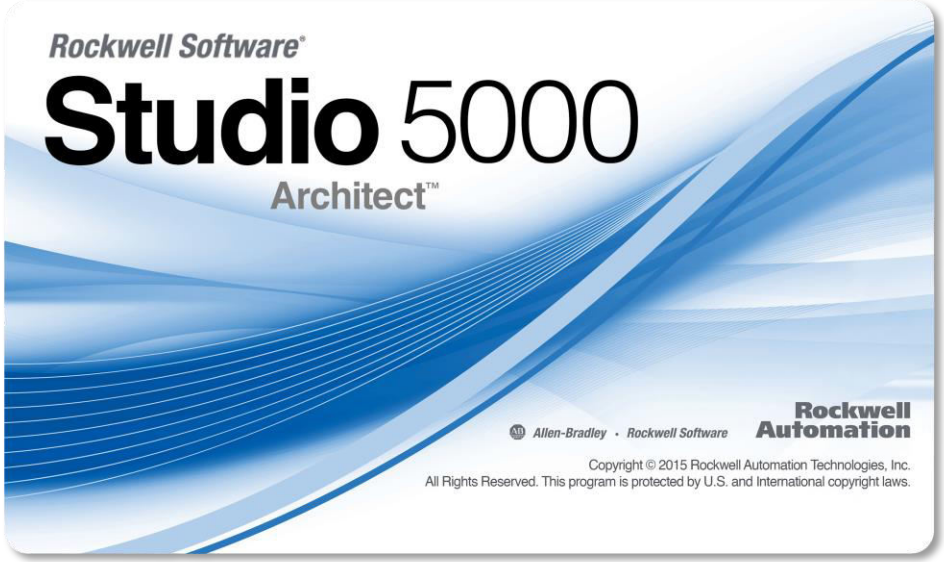

概述

Studio 5000 Architect™

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Studio 5000 Architect™

着眼于　系统　全生命周期

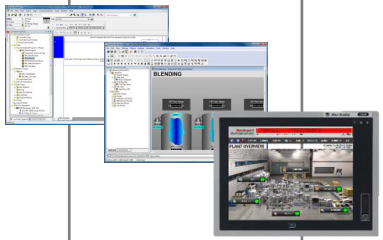
Rockwell Automation

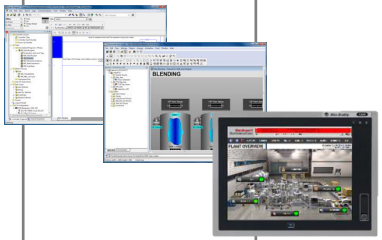
项目计划	系统设计	系统实施	系统调试	投入使用	操作	维护	升级

IAB

其他工具

系统数据





其他工具

Excel

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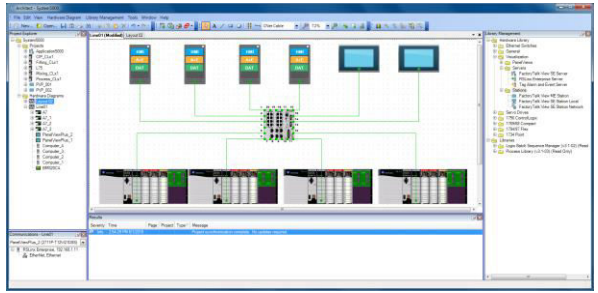
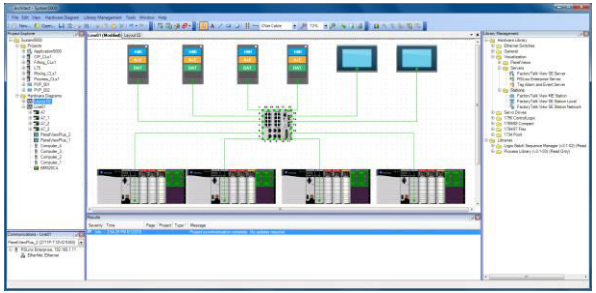
Studio 5000 Architect™

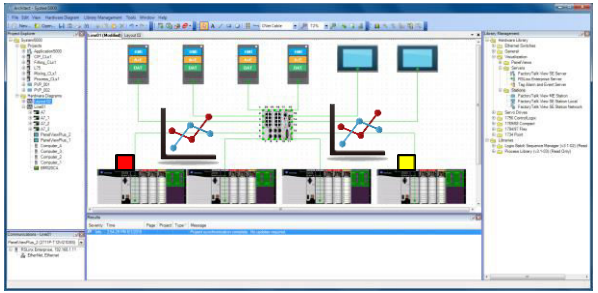
着眼于　系统　全生命周期

Rockwell Automation

系统选型	系统开发	系统管理







- ***Studio 5000 Architect*™ 做**为自动化系统管理软件，将致力于帮**助用**户减少系统的开发管理及维护的复杂性，从而节省时间和**成本**。
- 统一的架构有助于多产品间的数据资源共享。

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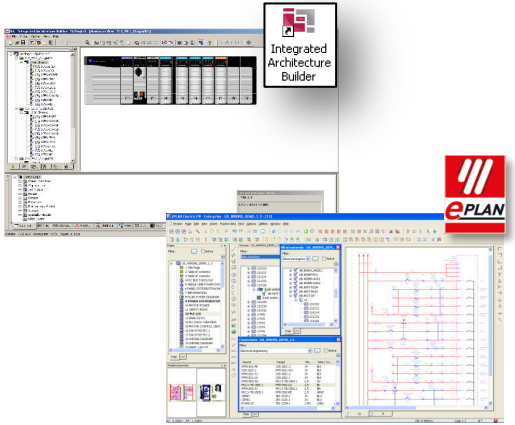
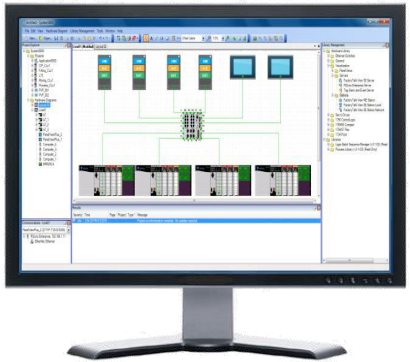
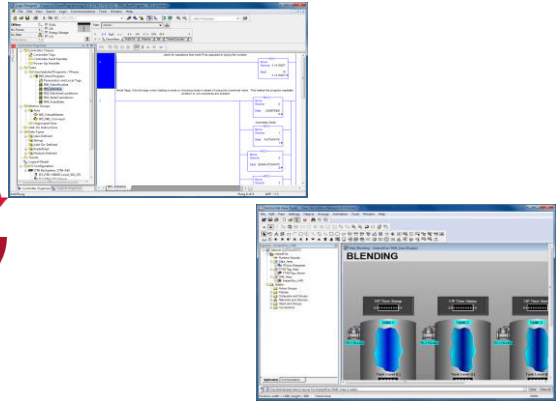
Studio 5000 Architect™
数据同步

Rockwell Automation







数据交互
- 从ePLAN/IAB 开始你的自动化系统创建
- 已经有成熟的上下位机工程在手里
- 内嵌PlantPAx模板和资源库

系统构建 和配置
- 上位机监控系统
- 下位机控制系统
- 网络拓扑

工程数据的同步管理和查看
- 对系统工程统一管理
- 直接打开相关工程

集中的系统配置和管理

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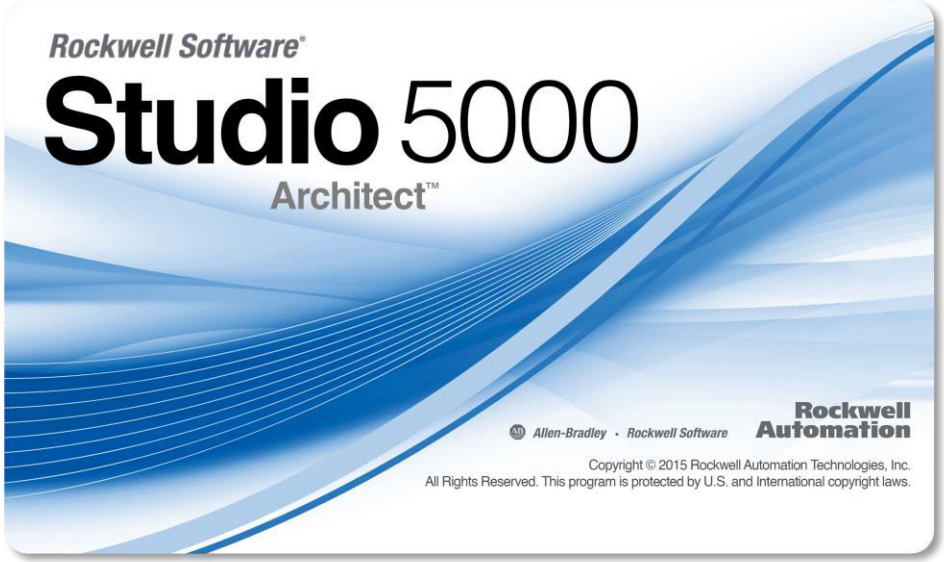

功能介绍

Studio 5000 Architect™

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工程创建

Studio 5000 Architect™

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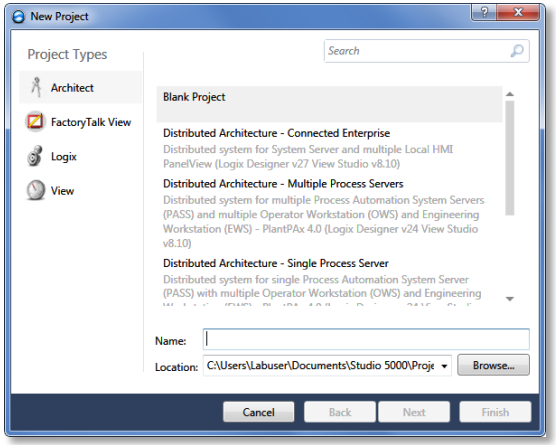

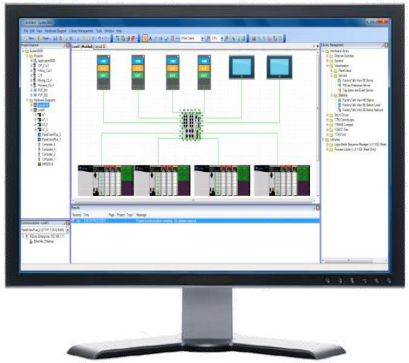

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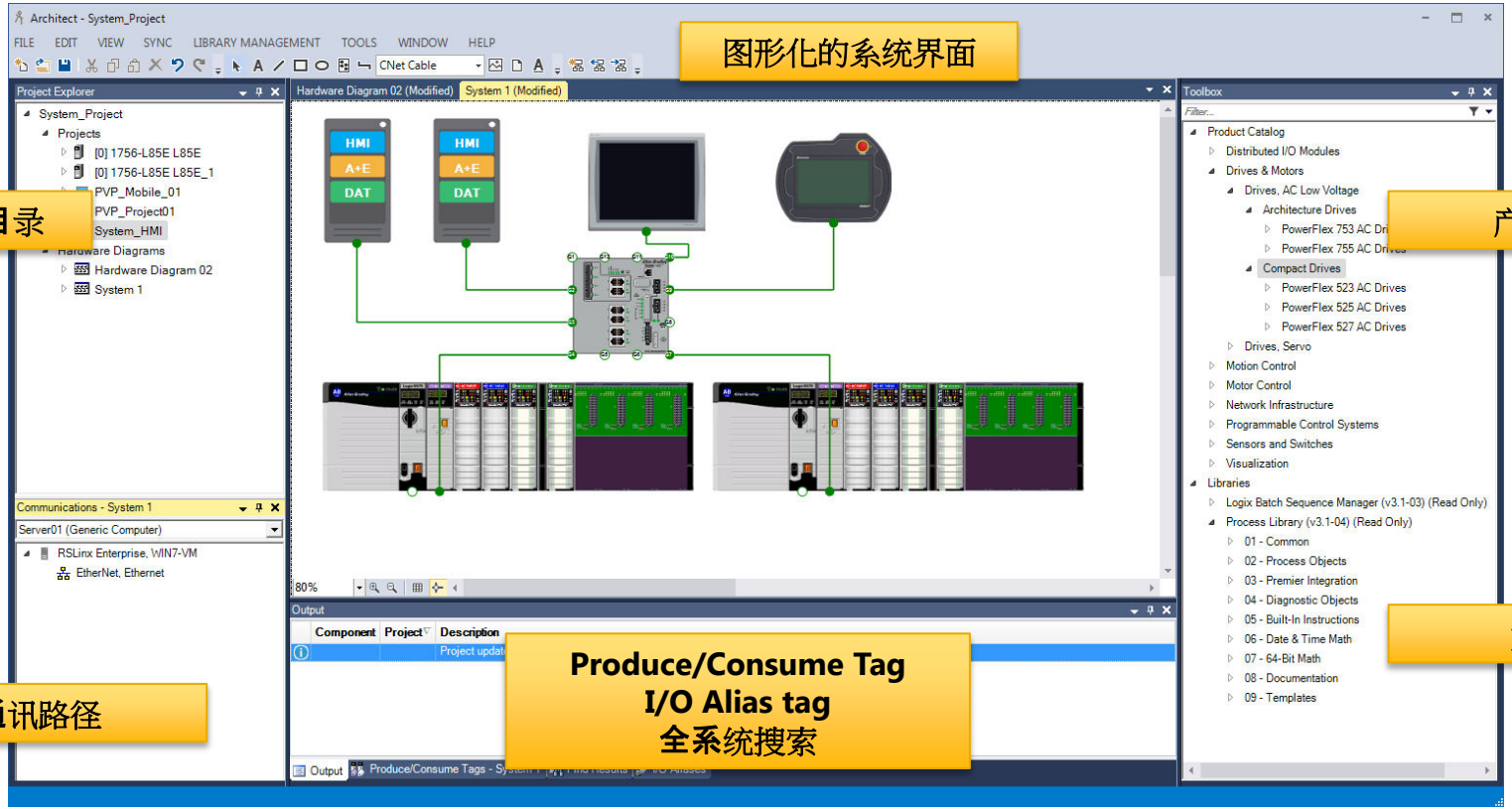
用户界面

Studio 5000 Architect™ (2.0 2016年底发布)

Rockwell Automation



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线性网络系统

Rockwell Automation

Studio 5000 Architect - DemoA

FILE EDIT VIEW SYNC LIBRARY MANAGEMENT TOOLS WINDOW HELP

CNet Cable

Project Explorer

- DemoA
  - Projects
    - L33ERM_My_controller_project
    - L83E_my_controller_project
    - My_FTViewME_Project
  - Hardware Diagrams

Communications - Hardware Diagram 02

PanelViewPlus_1 (2711P-T4W21D8S)

- RSLinx Enterprise, 2.2.2.2
  - EtherNet, Ethernet

Hardware Diagram 01 (Modified) | Hardware Diagram 02 (Modified)

85%

Produce/Consume Tags - Hardware Diagram 02

Consumer Controller	Consumer Tag	Data Type	Producer Controller	Producer Tag	RPI (ms)	Class

Add Edit Remove

Output | Produce/Consume Tags - Hardware Diagram 02 | Find Results | I/O Aliases

Toolbox

Filter...

- Product Catalog
  - Distributed I/O Modules
  - Drives & Motors
  - Motion Control
  - Motor Control
  - Network Infrastructure
  - Programmable Control Systems
  - Sensors and Switches
  - Visualization
- Libraries
  - My Library
  - Logix Batch Sequence Manager (v3.5-02) (Read Only)
  - Process Library (v3.5-03) (Read Only)
    - 01 - Common
    - 02 - Process Objects
      - 01 - Complete
      - Cross Functional
      - IO Processing
      - Motors
      - Procedural Control
      - Regulatory Control
      - Steam Table
      - Valves
    - 03 - Premier Integration
    - 04 - Diagnostic Objects
    - 05 - Built-In Instructions
    - 06 - PlantPAx MPC
    - 07 - Date & Time Math
    - 08 - 64-Bit Math
    - 09 - Documentation
    - 10 - Templates

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环形网络系统

Rockwell Automation

Studio 5000 Architect - DemoA

FILE EDIT VIEW SYNC LIBRARY MANAGEMENT TOOLS WINDOW HELP

CNet Cable

Project Explorer

- DemoA
  - Projects
    - FTView Application
    - L75_controller_project
  - Hardware Diagrams

Communications - Hardware Diagra...

Computer_1 (Generic Computer)

- RSLinx Enterprise, APCNDAE1VR826
  - EtherNet, Ethernet

Hardware Diagram 01 (Modified) | Hardware Diagram 02 (Modified)

HMI
A+E
DAT

70%

Produce/Consume Tags - Hardware Diagram 02

Consumer Controller	Consumer Tag	Data Type	Producer Controller	Producer Tag	RPI (ms)	Class
*						

Add Edit Remove

Output | Produce/Consume Tags - Hardware Diagram 02 | Find Results | I/O Aliases

Toolbox

Filter...

- Product Catalog
  - Distributed I/O Modules
  - Drives & Motors
  - Motion Control
  - Motor Control
  - Network Infrastructure
  - Programmable Control Systems
  - Sensors and Switches
  - Visualization
- Libraries
  - My Library
  - Logix Batch Sequence Manager (v3.5-02) (Read Only)
  - Process Library (v3.5-03) (Read Only)

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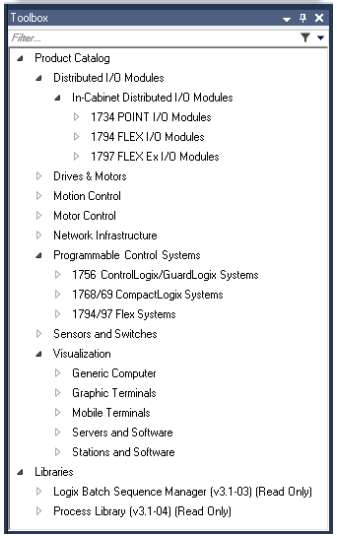
为系统选择硬件

Studio 5000 Architect™ （搜索功能将于2016年底发布）

Rockwell Automation

产品目录



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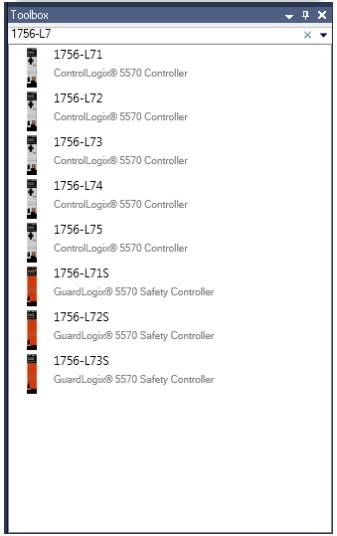
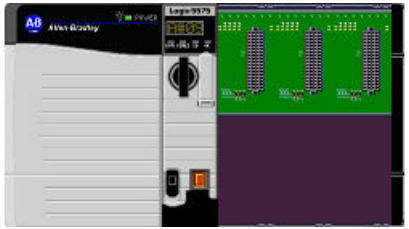
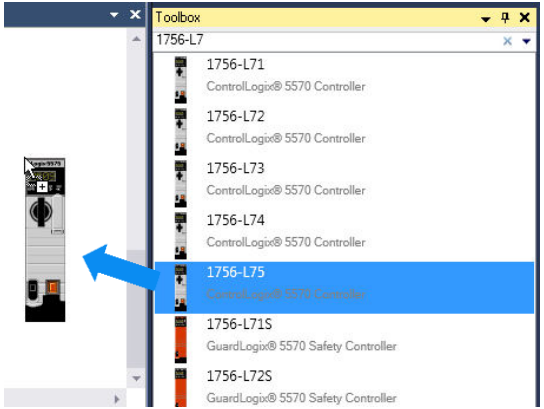


拖拽配置法





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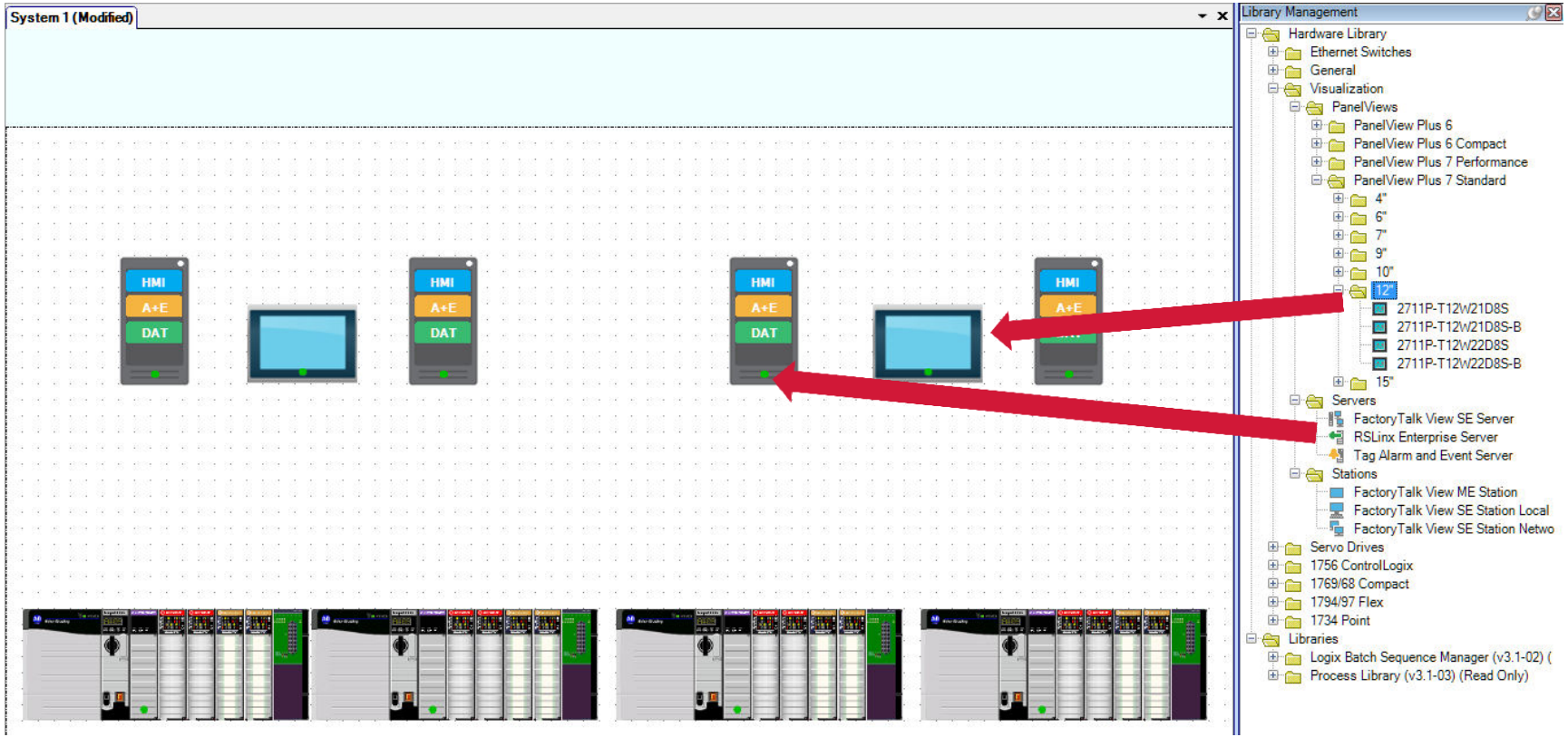
上位机监控系统软硬件配置

Studio 5000 Architect™

Rockwell Automation



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添加网络管理设备-以太网交换机

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System 1 (Modified)

HMI A+E DAT

Library Management

- Hardware Library
  - Ethernet Switches
    - ETap
    - Generic
    - Stratix 2000
    - Stratix 5700
      - 1783-BMS06SA
      - 1783-BMS06SGA
      - 1783-BMS06SGL
      - 1783-BMS06SL
      - 1783-BMS06TA
      - 1783-BMS06TGA
      - 1783-BMS06TGL
      - 1783-BMS06TL
      - 1783-BMS10CA
      - 1783-BMS10CGA
      - 1783-BMS10CGL
      - 1783-BMS10CGN
      - 1783-BMS10CGP
      - 1783-BMS10CL
      - 1783-BMS20CA
      - 1783-BMS20CGL
      - 1783-BMS20CGN
      - 1783-BMS20CGP
      - 1783-BMS20CL
    - Stratix 6000
    - Stratix 8000
    - Stratix 8300
  - General
  - Visualization
  - Servo Drives
  - 1756 ControlLogix
  - 1769/68 Compact
  - 1794/97 Flex
  - 1734 Point
- Libraries
  - Logix Batch Sequence Manager (v3.1-02) (
  - Process Library (v3.1-03) (Read Only)

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连接网络拓扑

Rockwell Automation

Architect - System_Project

FILE EDIT VIEW SYNC LIBRARY MANAGEMENT TOOLS WINDOW HELP

Project Explorer

- System_Project
  - Projects
    - [0] 1756-L85E L85E
    - [0] 1756-L85E L85E_1
    - PVP_Mobile_01
    - PVP_Project01
    - System_HMI
  - Hardware Diagrams
    - Hardware Diagram 02
    - System 1

Communications - System 1

Server01 (Generic Computer)

- RSLinx Enterprise, WIN7-VM
  - EtherNet, Ethernet

Hardware Diagram 02 (Modified) | System 1 (Modified)

HMI A+E DAT

HMI A+E DAT

80%

Output

Component	Project	Description
		Project update complete. No updates required.

Output | Produce/Consume Tags - System 1 | Find Results | I/O Aliases

Toolbox

- Product Catalog
  - Distributed I/O Modules
  - Drives & Motors
    - Drives, AC Low Voltage
      - Architecture Drives
        - PowerFlex 753 AC Drives
        - PowerFlex 755 AC Drives
      - Compact Drives
        - PowerFlex 523 AC Drives
        - PowerFlex 525 AC Drives
        - PowerFlex 527 AC Drives
    - Drives, Servo
  - Motion Control
  - Motor Control
  - Network Infrastructure
  - Programmable Control Systems
  - Sensors and Switches
  - Visualization
- Libraries
  - Logix Batch Sequence Manager (v3.1-03) (Read Only)
  - Process Library (v3.1-04) (Read Only)
    - 01 - Common
    - 02 - Process Objects
    - 03 - Premier Integration
    - 04 - Diagnostic Objects
    - 05 - Built-In Instructions
    - 06 - Date & Time Math
    - 07 - 64-Bit Math
    - 08 - Documentation
    - 09 - Templates

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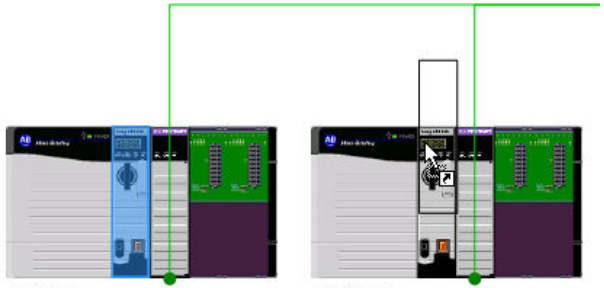
配置通信

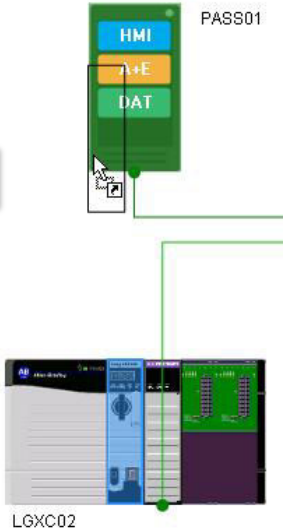
Studio 5000 Architect™ (2.0 Improvements)

Rockwell Automation

拖拽配置法



控制器和输入输出模块间的通信
控制器之间通信



上下位机通信

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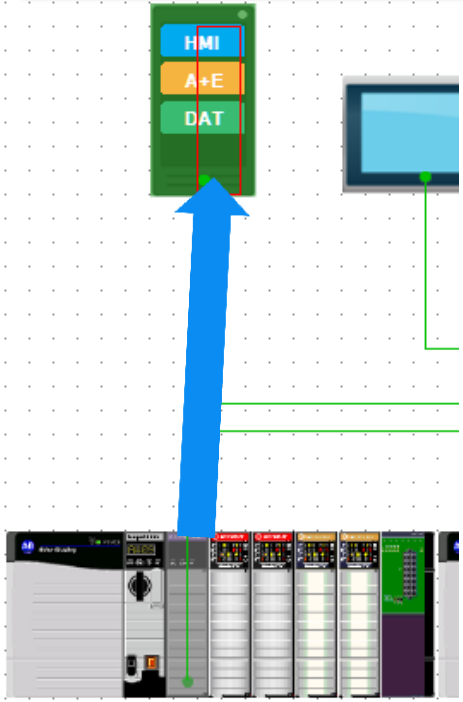
配置上下位机通信

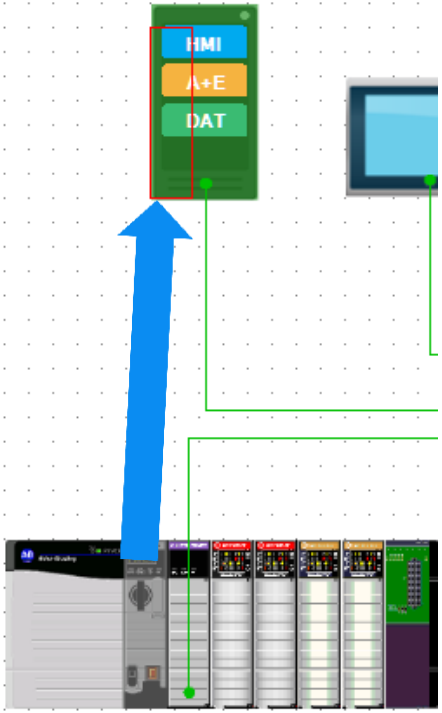
Studio 5000 Architect™

Rockwell Automation

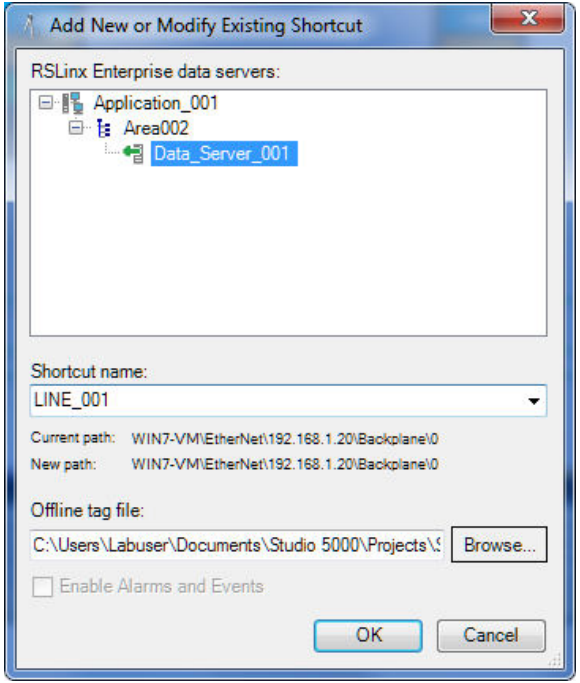
拖拽通信模块到上位机数据服务器



拖拽控制器到上位机数据服务器



建立上下位机通信关系



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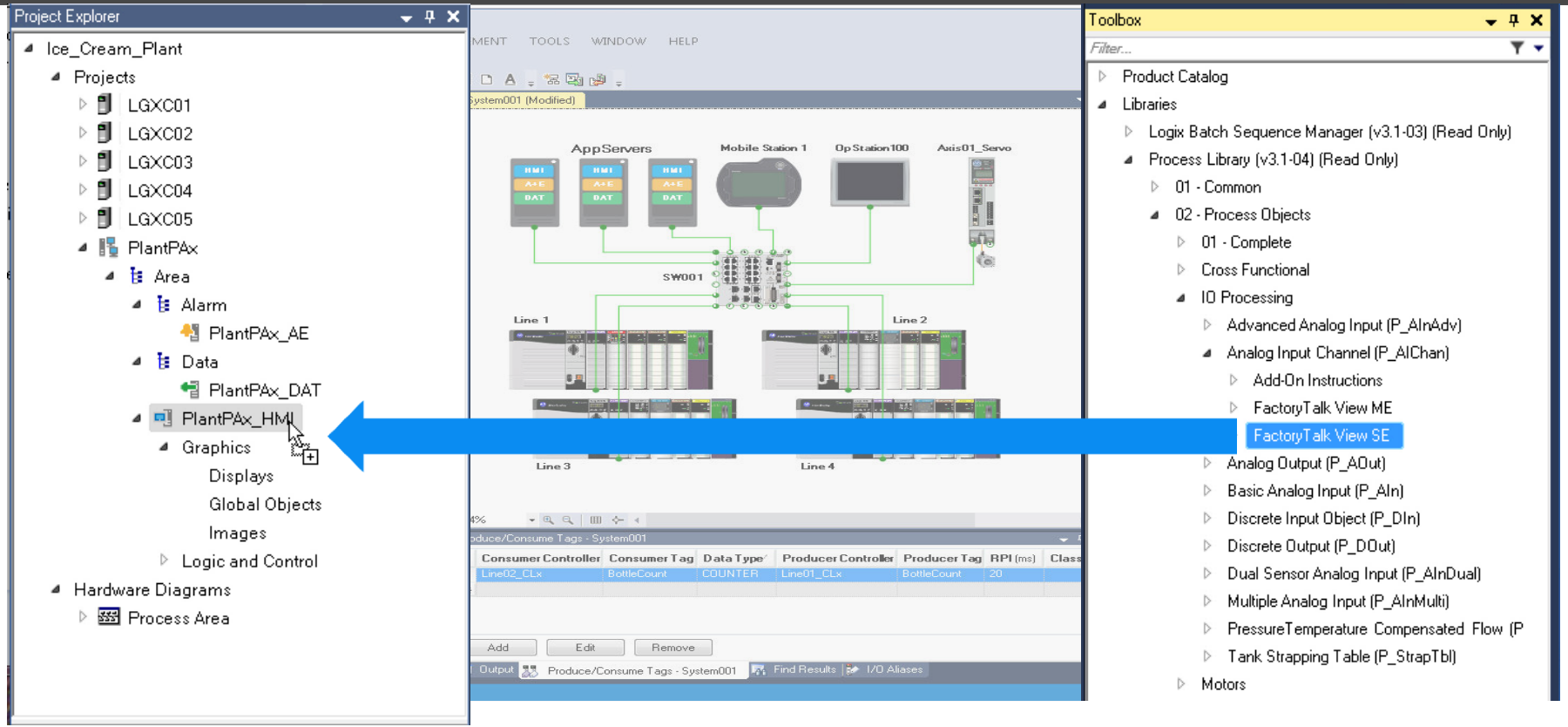
利用资源库配置工程

Studio 5000 Architect™

Rockwell Automation



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自定义的资源库

Rockwell Automation

Studio 5000 Architect - DemoA

FILE EDIT VIEW SYNC LIBRARY MANAGEMENT TOOLS WINDOW HELP

Project Explorer
- DemoA
  - Projects
    - L33ERM_My_controller_project
    - L83E_my_controller_project
    - My_FTViewME_Project
  - Hardware Diagrams

Communications - Hardware Diagram 02

PanelViewPlus_1 (2711P-T4W21D8S)

- RSLinx Enterprise, 2.2.2.2
  - EtherNet, Ethernet

Hardware Diagram 01 (Modified) | Hardware Diagram 02 (Modified)

85%

Produce/Consume Tags - Hardware Diagram 02

Consumer Controller	Consumer Tag	Data Type	Producer Controller	Producer Tag	RPI (ms)	Class

Add | Edit | Remove

Output | Produce/Consume Tags - Hardware Diagram 02 | Find Results | I/O Aliases

Toolbox

Filter...

- Product Catalog
  - Distributed I/O Modules
  - Drives & Motors
  - Motion Control
  - Motor Control
  - Network Infrastructure
  - Programmable Control Systems
  - Sensors and Switches
  - Visualization
- Libraries
  - My Library
    - AOI
      - AOI_1
      - AOI_1_sealed
      - AOI_1_source_protected
      - EM_LBSM
    - UDT
      - LBSM_ActualValues
      - LBSM_Equip
    - Displays
      - (RA-LBSM) Equipment-Config
      - (RA-LBSM) Equipment-Faceplate
      - (RA-LBSM) MasterSeq-Edit-Select
      - (RA-LBSM) MasterSeq-Load-Select
      - (RA-LBSM) Phase-Faceplate
      - (RA-LBSM) Sequence-Config-DeleteStep-Confirm
    - FTViewME HMI tags
      - FTVME_LBSM_Tags_3_5_02
  - Logix Batch Sequence Manager (v3.5-02) (Read Only)
  - Process Library (v3.5-03) (Read Only)

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Produce Consume Tag 配置

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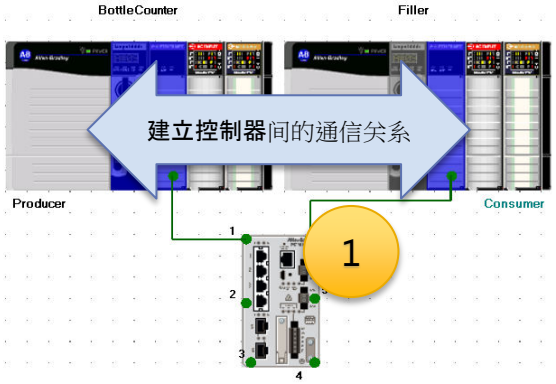

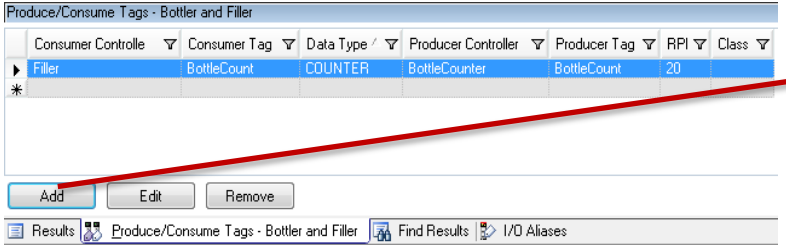

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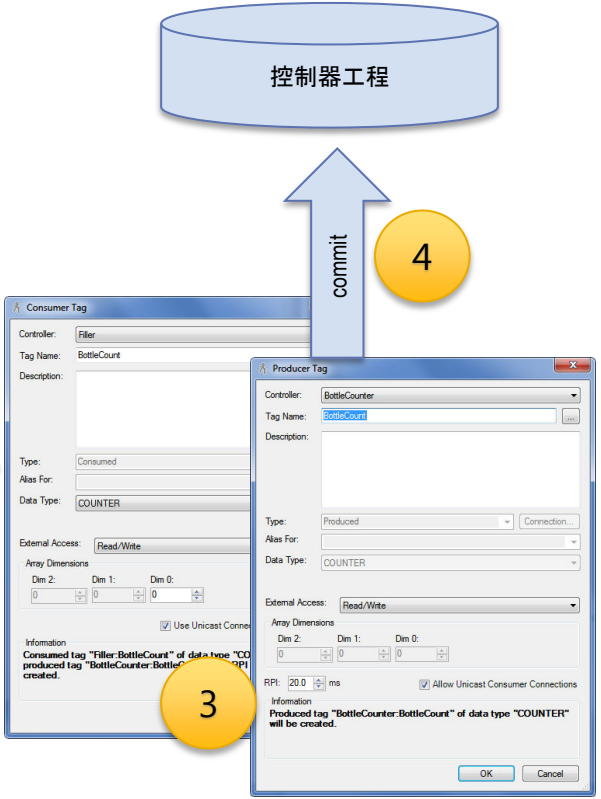

3

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I/O Alias Tag 配置

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Studio 5000 Architect - DemoA

FILE EDIT VIEW SYNC LIBRARY MANAGEMENT TOOLS WINDOW HELP

CNet Cable

Project Explorer

- DemoA
  - Projects
    - L33ERM_My_controller_project
    - L83E_my_controller_project
    - My_FTViewME_Project
  - Hardware Diagrams

Hardware Diagram 01 (Modified) | Hardware Diagram 02 (Modified)

85%

Toolbox

Filter...

- Product Catalog
  - Distributed I/O Modules
  - Drives & Motors
  - Motion Control
  - Motor Control
  - Network Infrastructure
  - Programmable Control Systems
  - Sensors and Switches
  - Visualization
- Libraries

Communications - Hardware Diagram 02

PanelViewPlus_1 (2711P-T4W21D8S)

- RSLinx Enterprise, 2.2.2.2
  - EtherNet, Ethernet

I/O Aliases

Name	Catalog Numb	Description	
OB8	1756-OB8	8 Point 10V-30V DC Output	
Point	Type/Direction	Point Tag	L83E_my_controller_project
0	Discrete Out	Start	Start
1	Discrete Out	Stop	Stop
2	Discrete Out		
3	Discrete Out		
4	Discrete Out		
5	Discrete Out		
6	Discrete Out		
7	Discrete Out		

Output | Produce/Consume Tags - Hardware Diagram 02 | Find Results | I/O Aliases

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上下位机工程创建和修改

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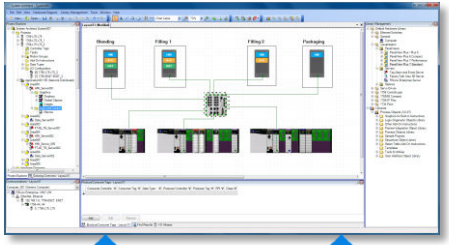
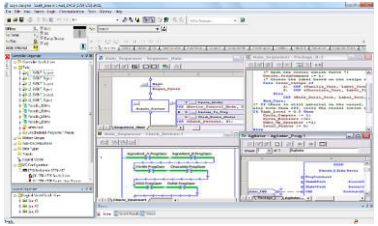
系统

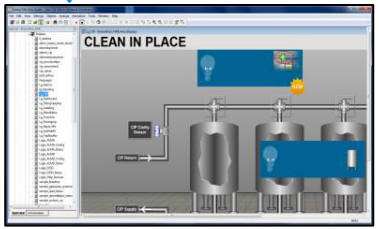


打开Logix Designer

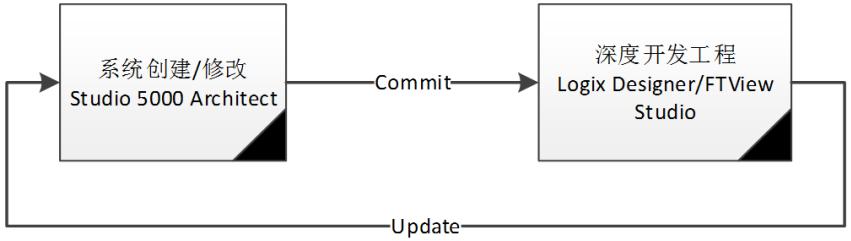
同步工程

打开FactoryTalk View Studio





一键同步系统工程



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上位机监控分布式系统自动部署

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数据交互

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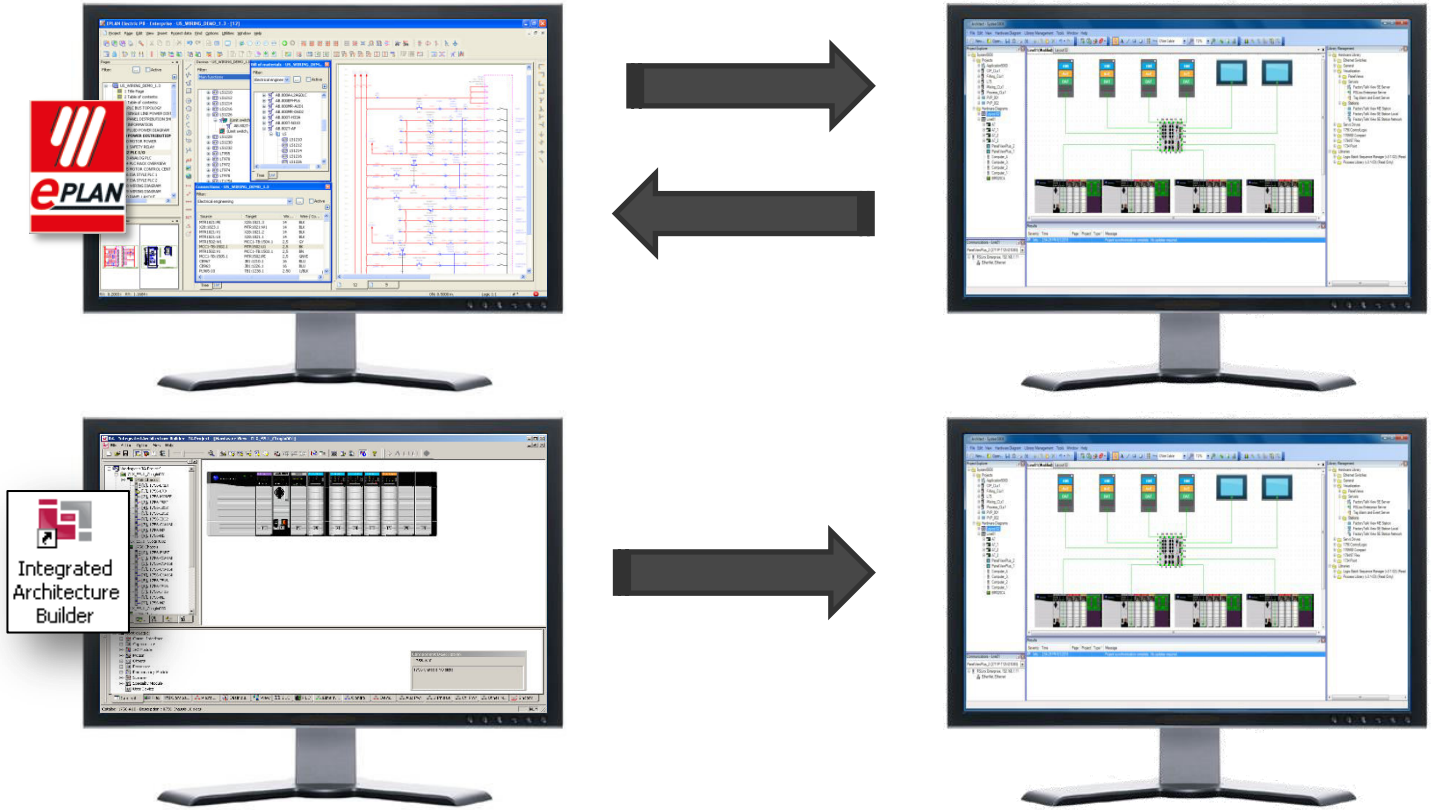

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从系统角度着眼

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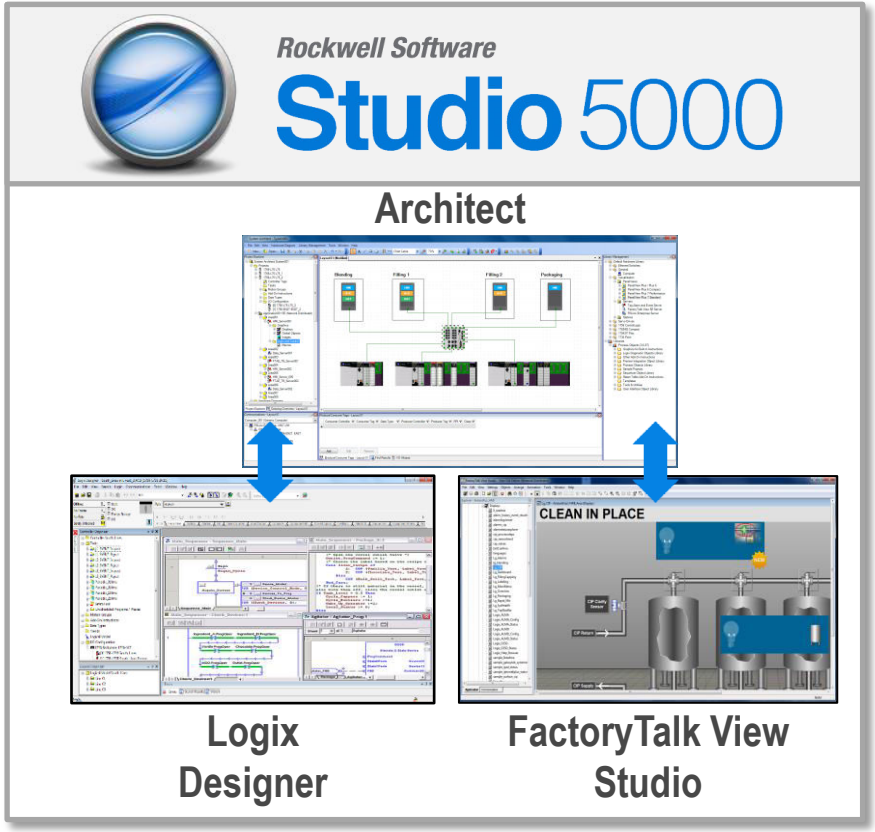
- 自动化系统搭建和管理，上下位机工程统一调度
- 上下位机软硬件配置
- 网络拓扑搭建
- 嵌入PlantPAx模板和资源库
- 数据交互



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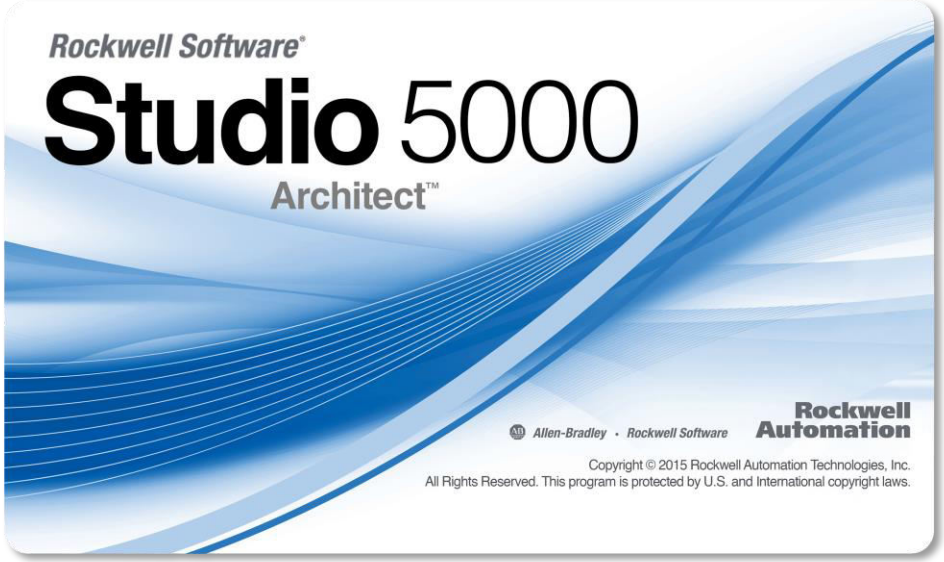

版本 1.00

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Studio 5000 Architect™

版本 1.00 功能 (发布于2015年 8 月)

Rockwell Automation

- 支持Logix 版本V20 到版本V27
- 支持FactoryTalk View Site Edition™ 和 FactoryTalk View Machine Edition™ 8.10 以及之后的版本, PanelView™ Plus and MobileView™ Terminals
- 集成资源库Process Objects v3.1-04

版本 1.00	版本 1.01	版本 1.02
Logix V20-V27	添加支持Logix V28	添加支持Logix V29 升级资源库到3.5
FactoryTalk View 8.1及之后版本	→	→

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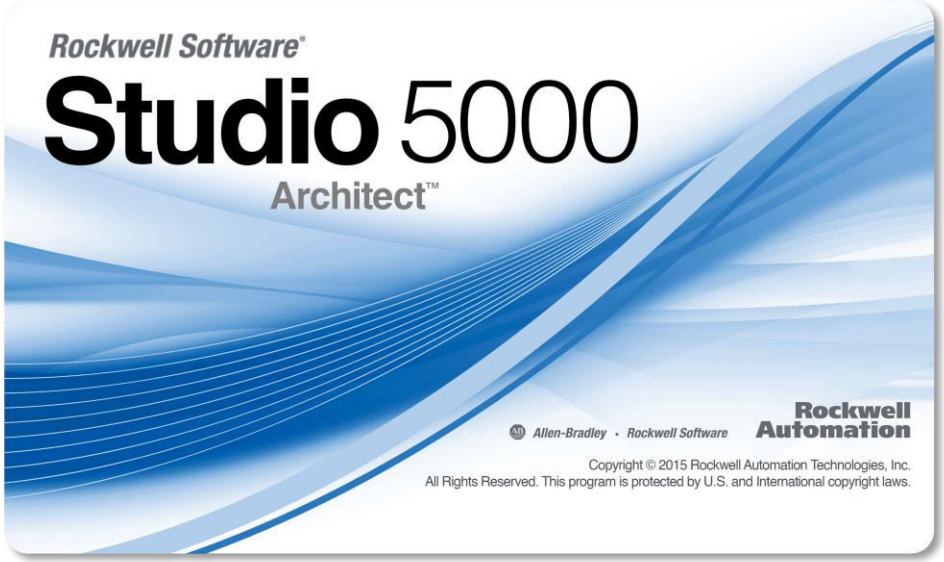

订购信息

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Studio 5000 Architect™
订购信息

Rockwell Automation

- Studio 5000 Architect™ 能够被Logix Designer Full, Standard, 和 Pro licenses激活
- Studio 5000 Architect™ 也可以独立购买 (CAT # 9326-LGXARCHENE)

- 资源库Process Objects v 3.5 已在官网供下载

Studio 5000 Architect™ 仅支持网络下载
http://www.rockwellautomation.com/support/webupdates/

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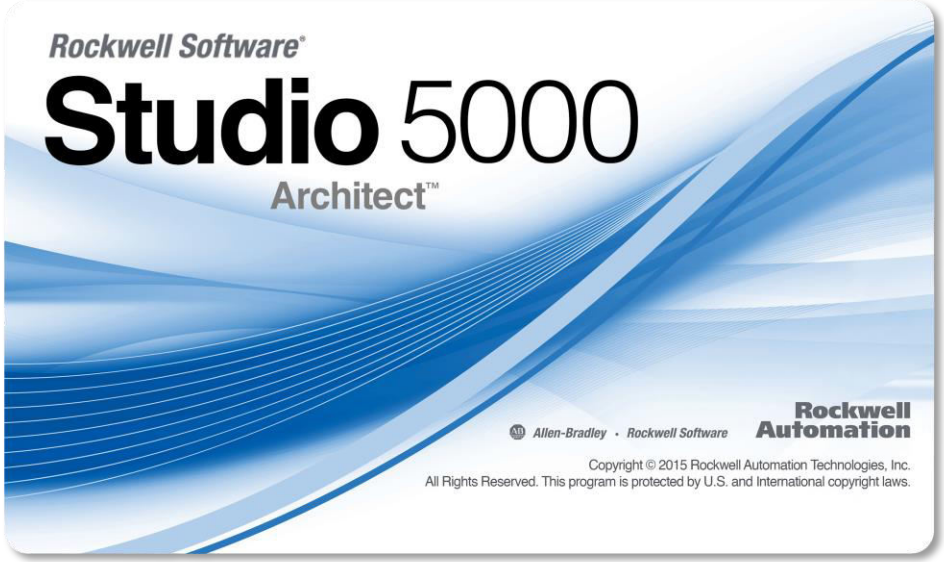

2.00 预览 –将于2016年底发布

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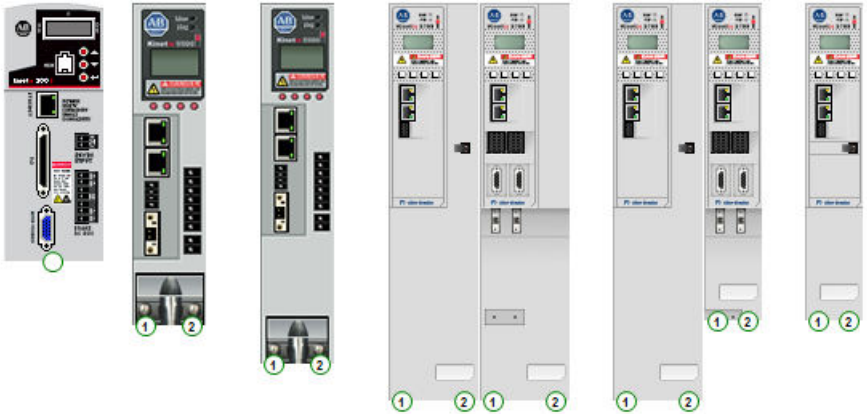
Studio 5000 Architect™ 2.0 (2016年底发布)

支持新的设备

以实际发布版本为准

概述

支持PowerFlex, Kinetix300/350/5700, 和新一代CompactLogix 5069 设备。



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Studio 5000 Architect™ 2.0 (2016年底发布)

加强数据交互

以实际发布版本为准

概述

- 采用Web Ontology Language (OWL) 做为媒介
- 扩展数据交互至其他工程软件(AutoCAD, Solid Works, 等等)， 数据格式多样化(.CSV, XML, 和 XLS.) （暂定于R3）

工程工具 ⇄ Rockwell Software Studio 5000

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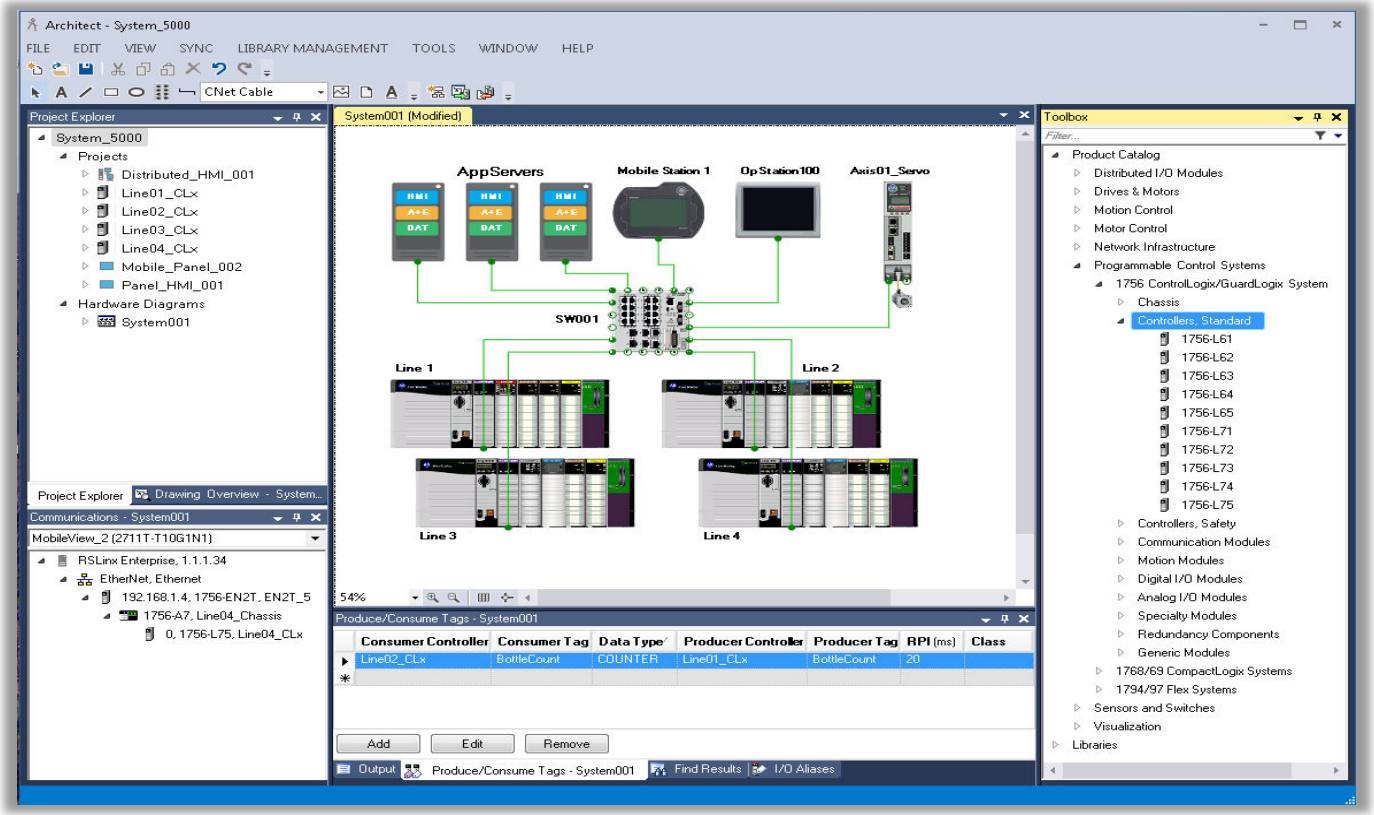
Studio 5000 Architect™ 2.0 (2016年底发布)

界面优化

Rockwell Automation

以实际发布版本为准



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LISTEN. THINK. SOLVE.®

谢谢

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