

Uniwersytet Zielonogórski

Instytut Sterowania i Systemów Informatycznych

Przedmiot: Automatykacja procesów produkcyjnych

Laboratorium nr. 2

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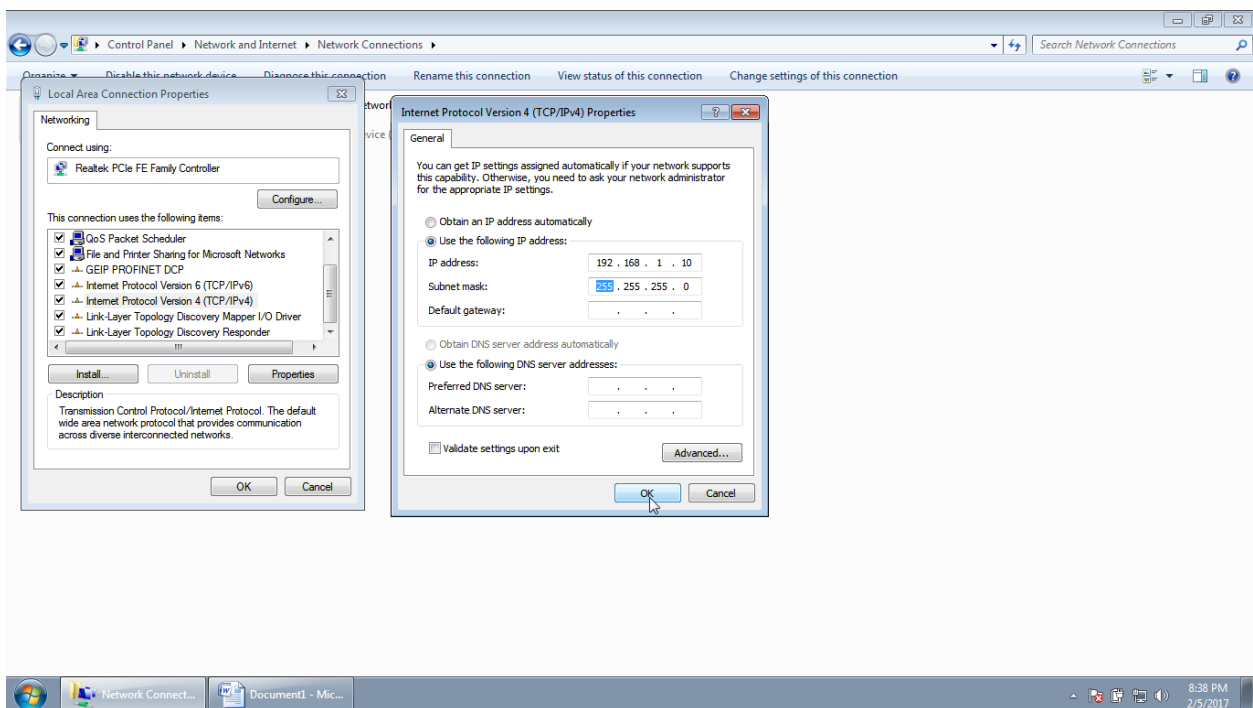
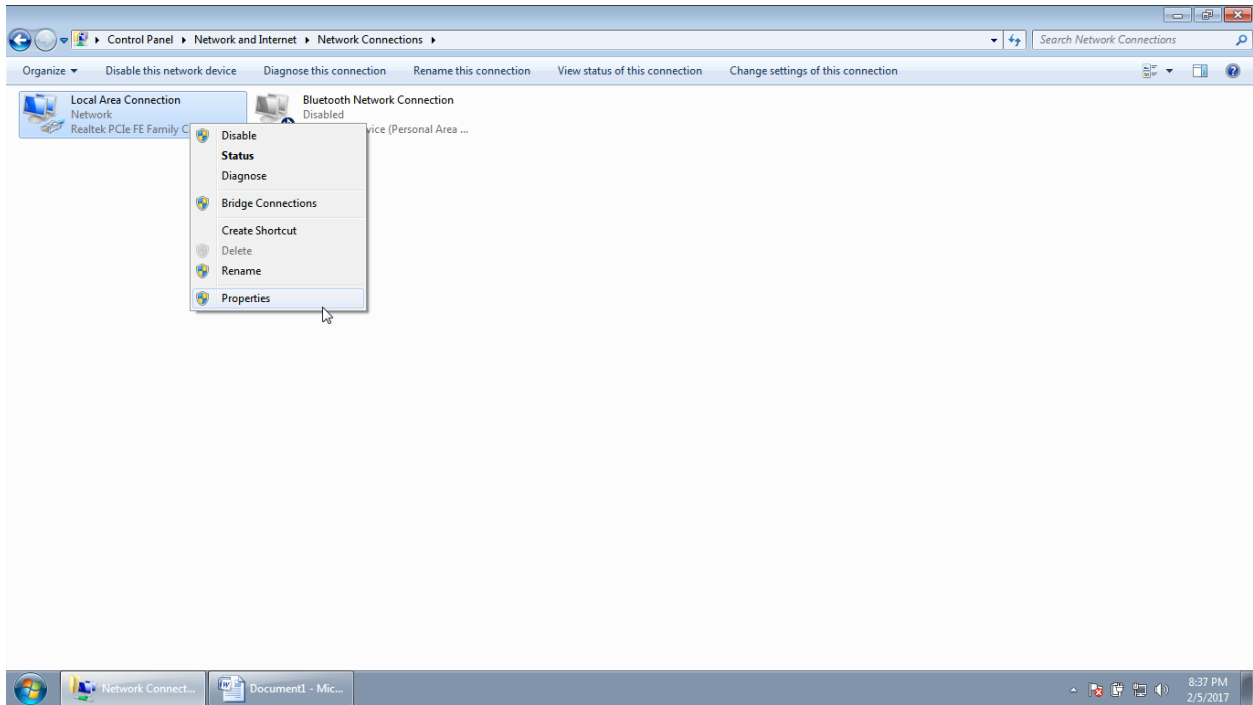
1. Cel:

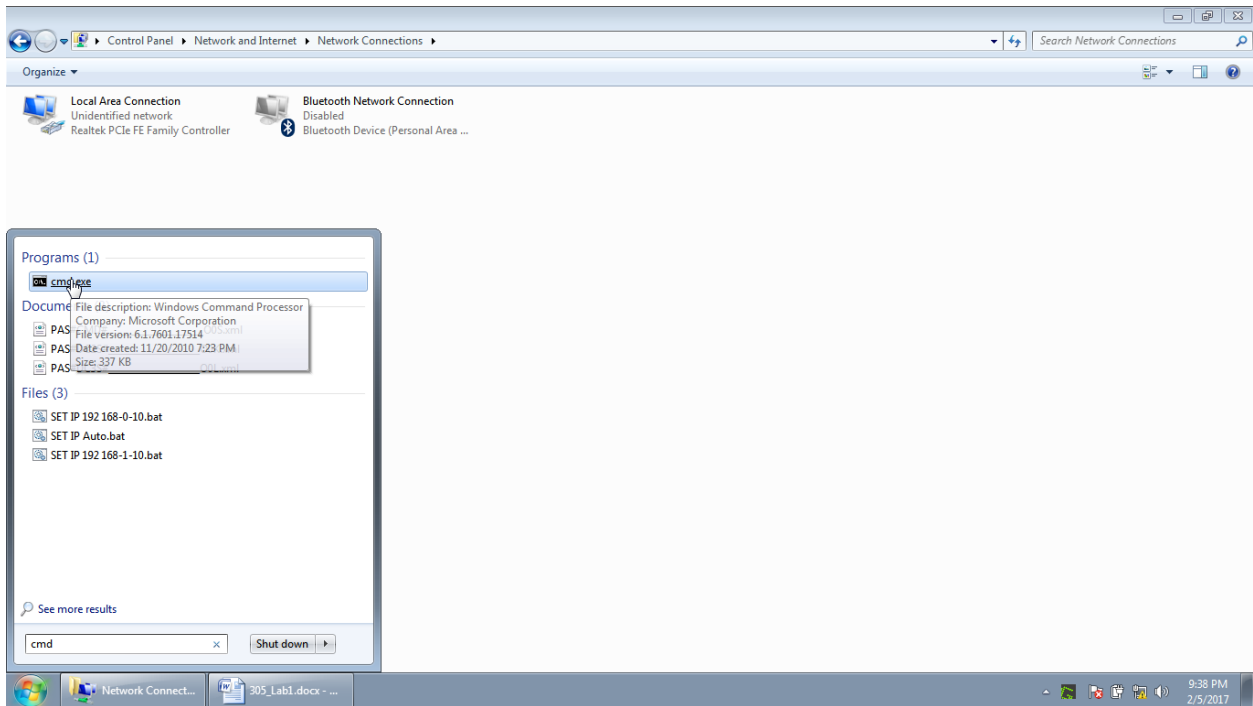
Celem ćwiczenia jest zapoznanie studentów z podstawowa konfiguracja sterowników RX3i.

2. Opis:

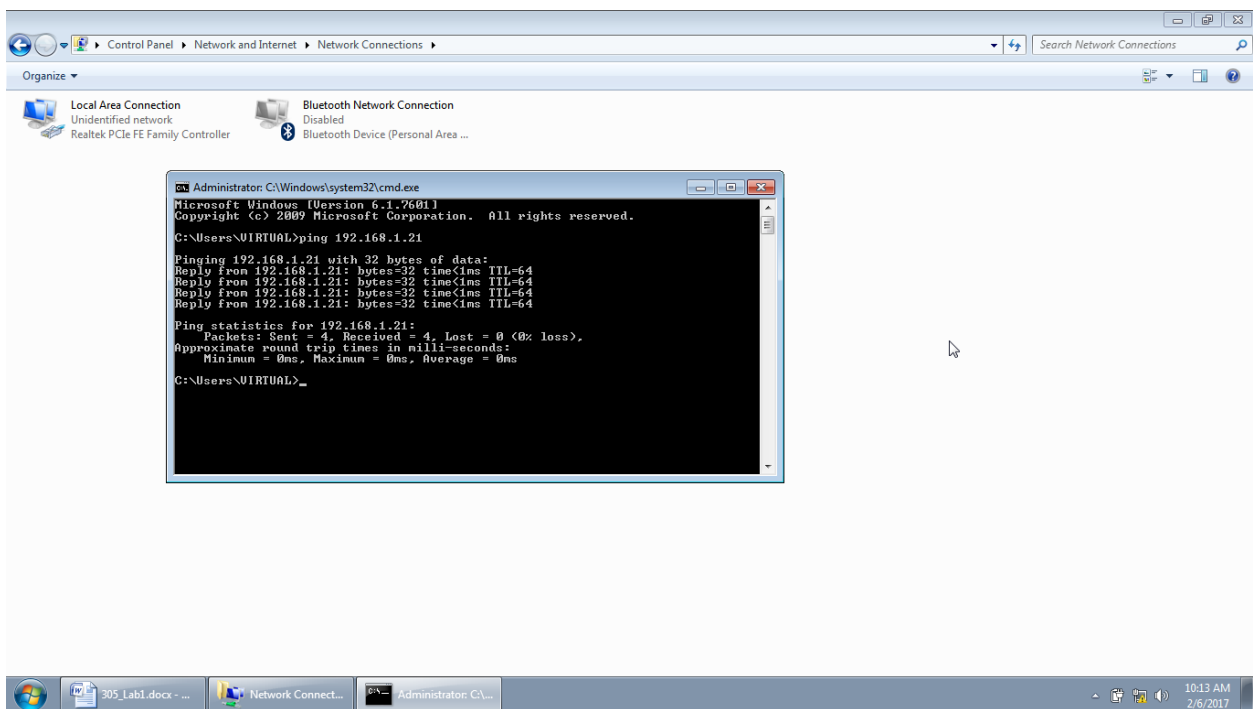
3. Ćwiczenia do wykonania:

3.1. Konfiguracja karty sieciowej do komunikacji w sieci Ethernet

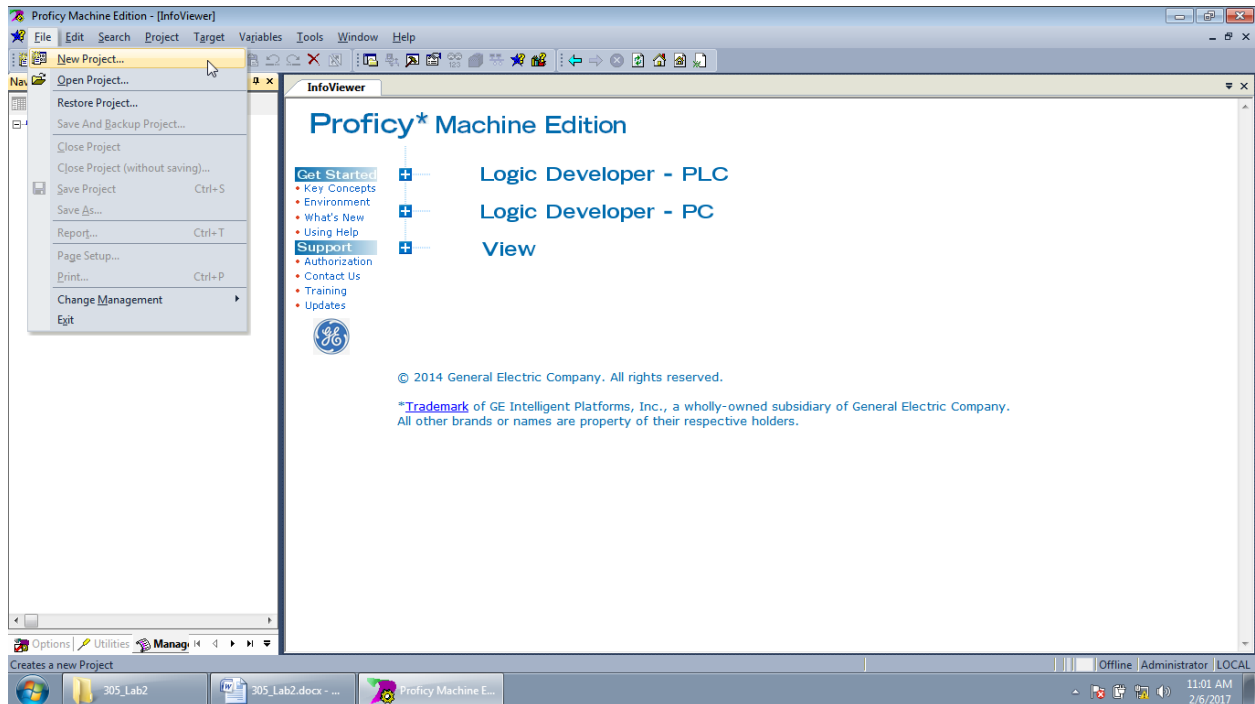
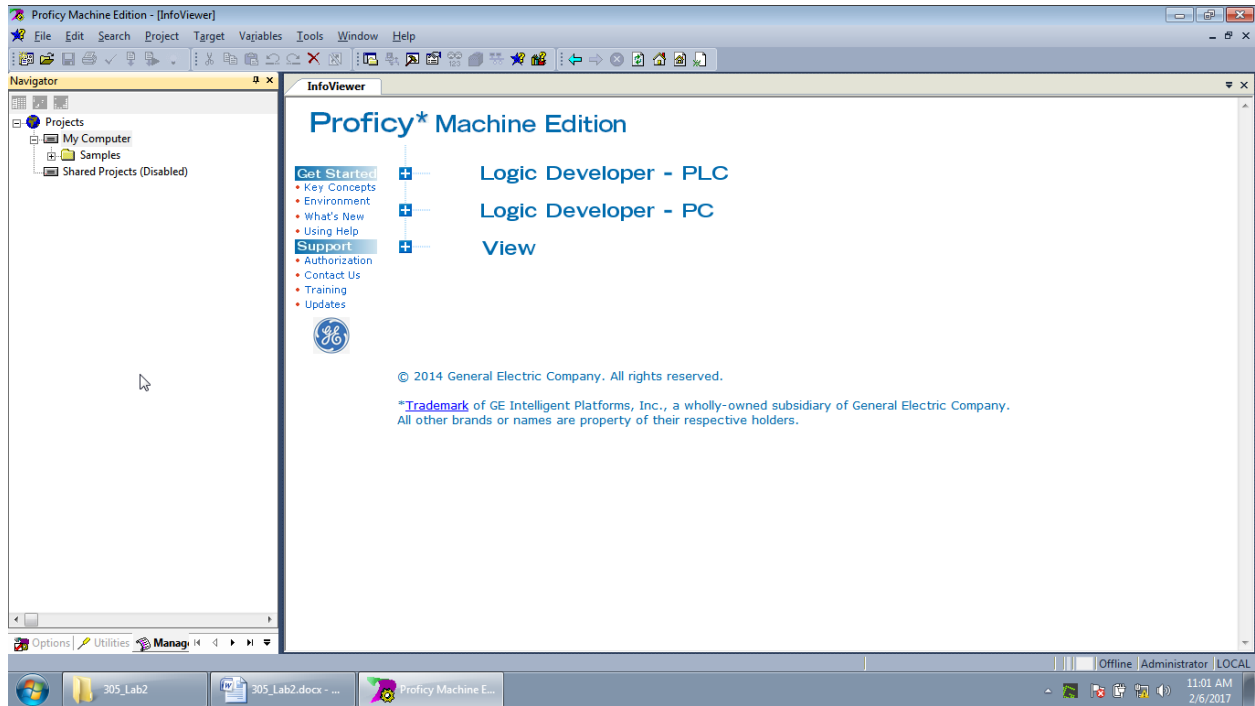


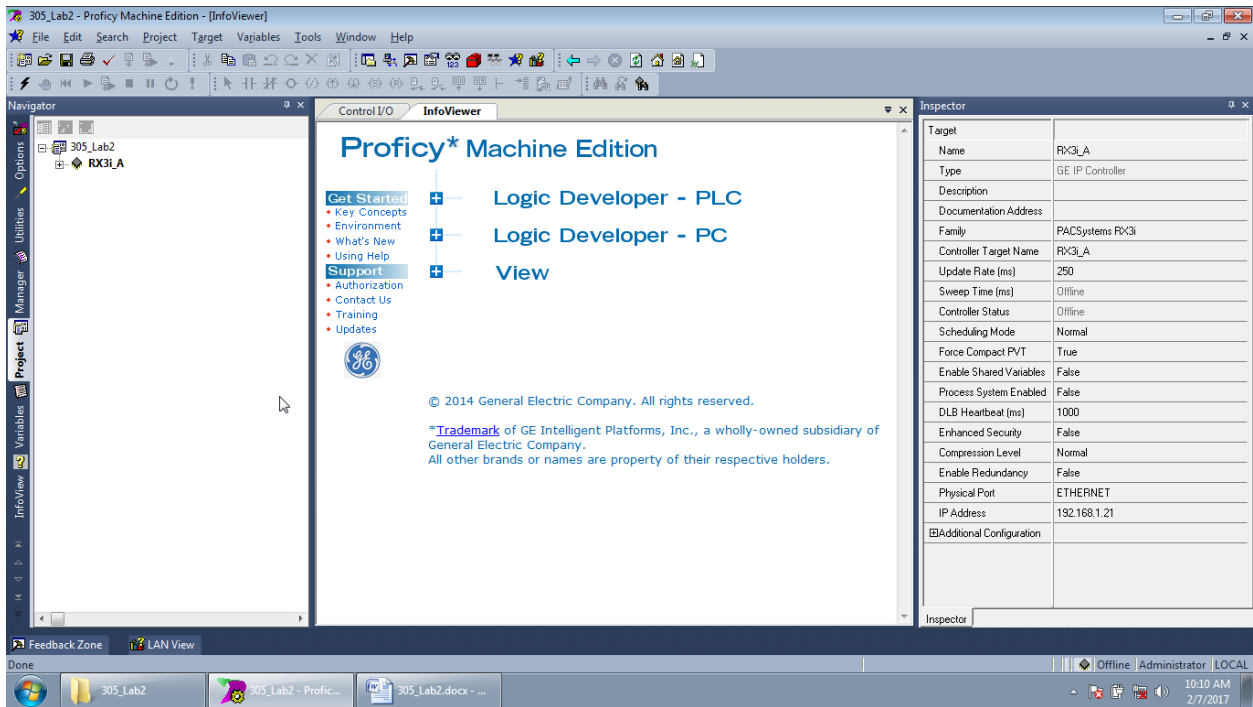
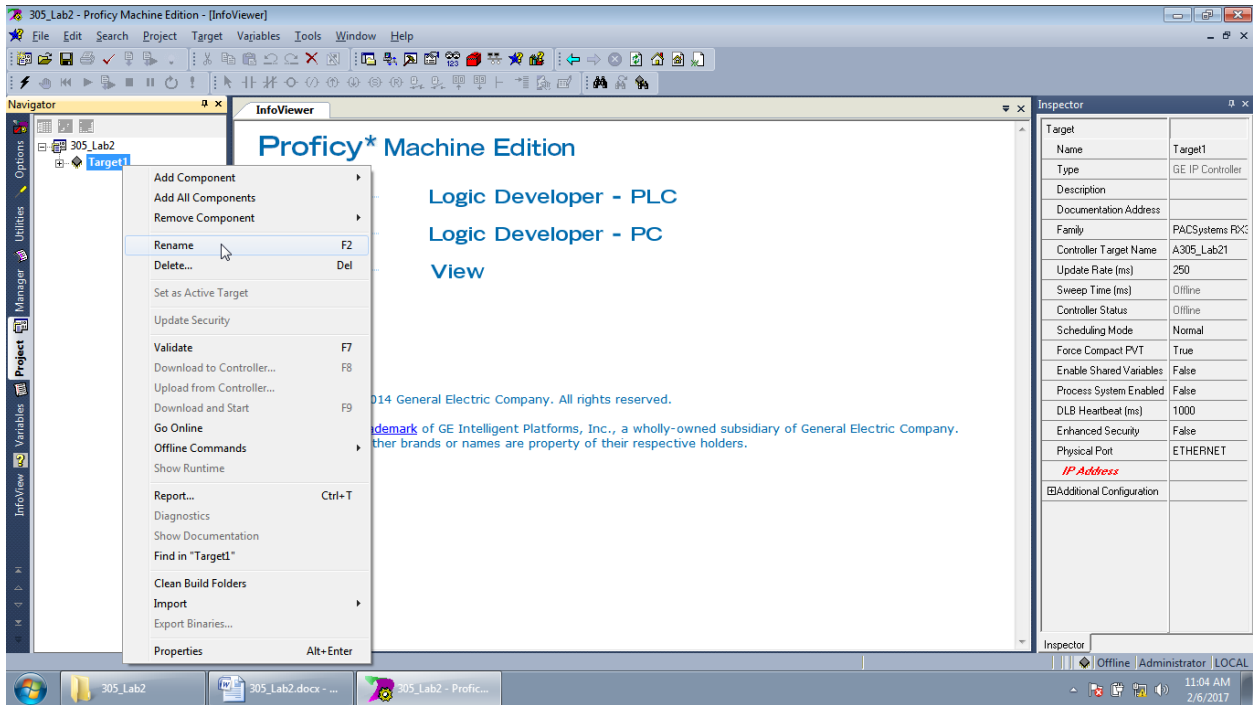


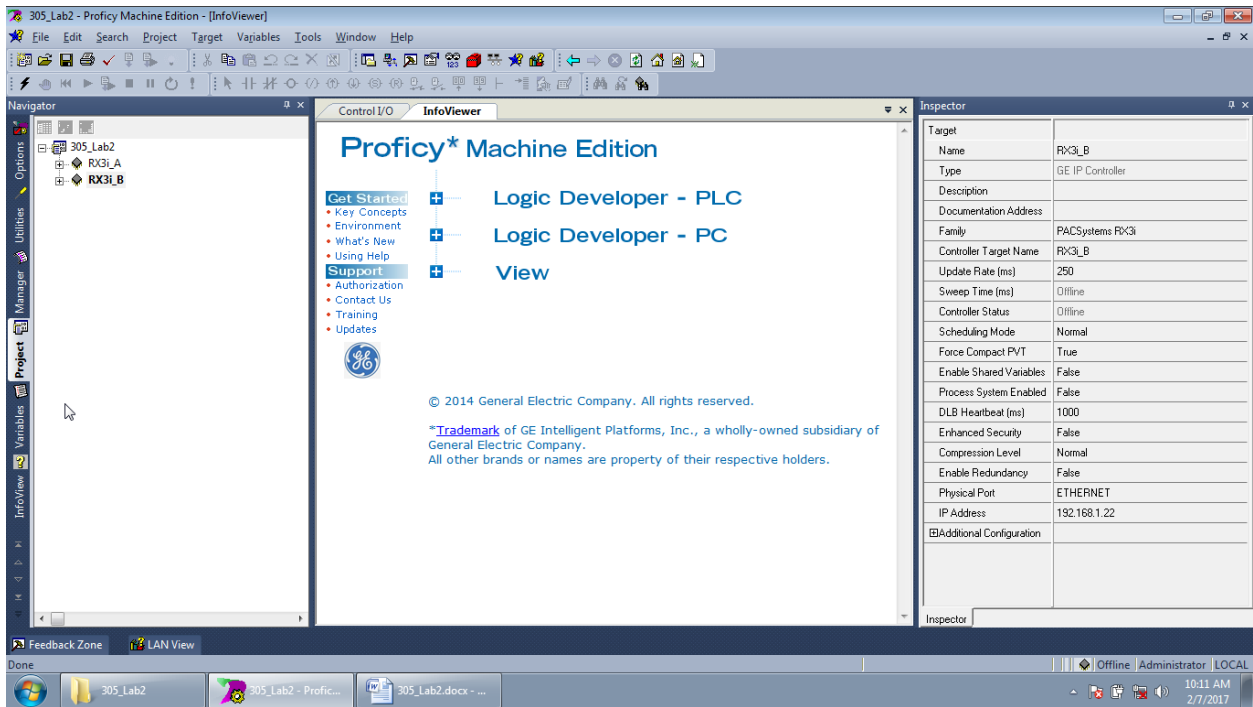
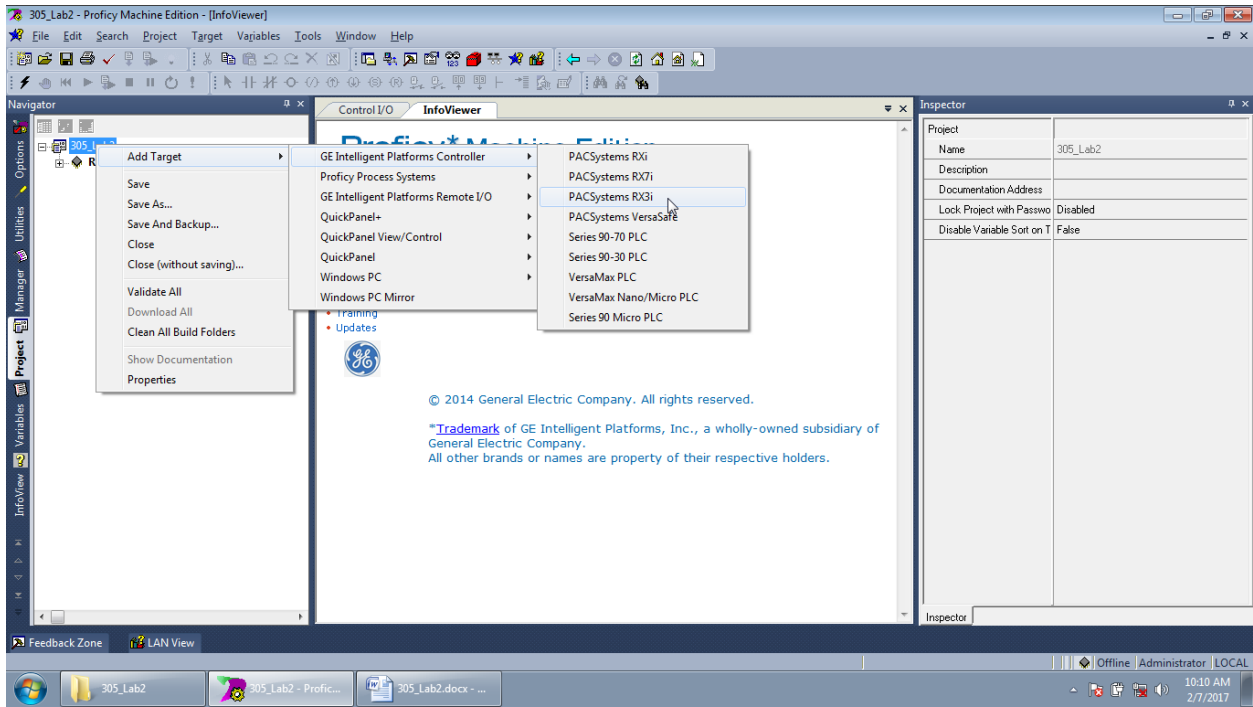
- Kontroler PAC GE RX3i – nr 1 - ping 192.168.1.21
- Kontroler PAC GE RX3i – nr 2 - ping 192.168.1.22



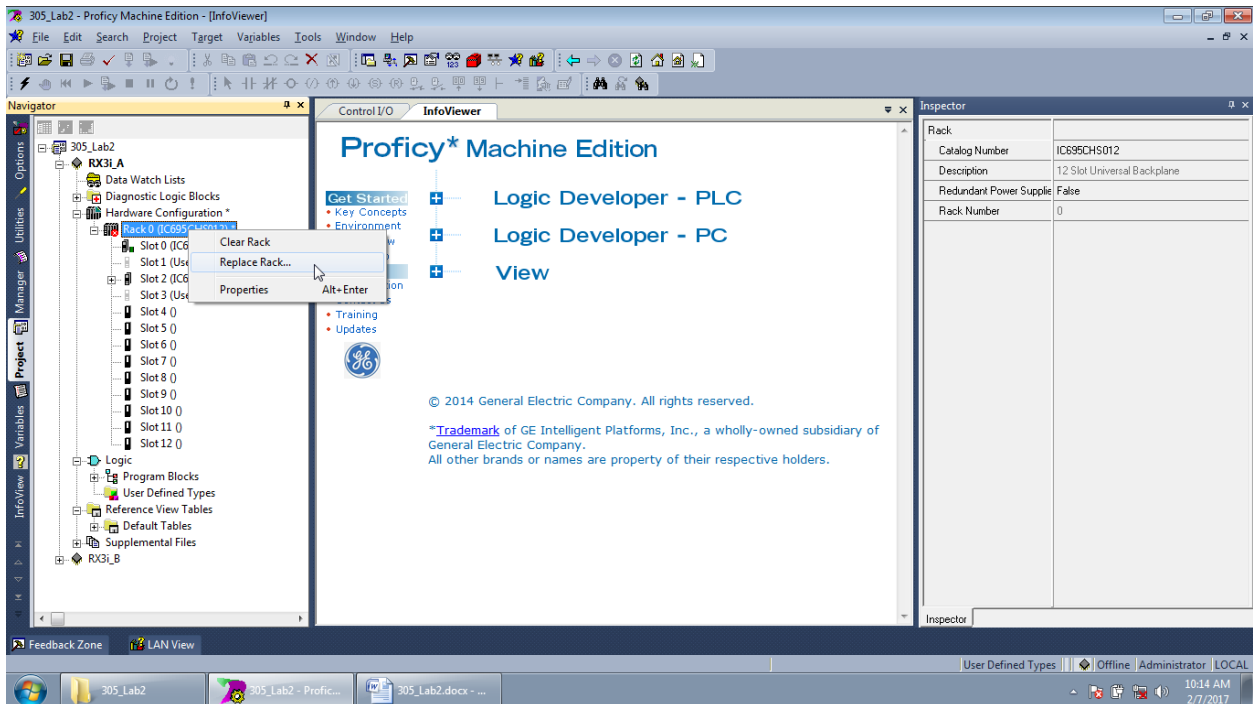
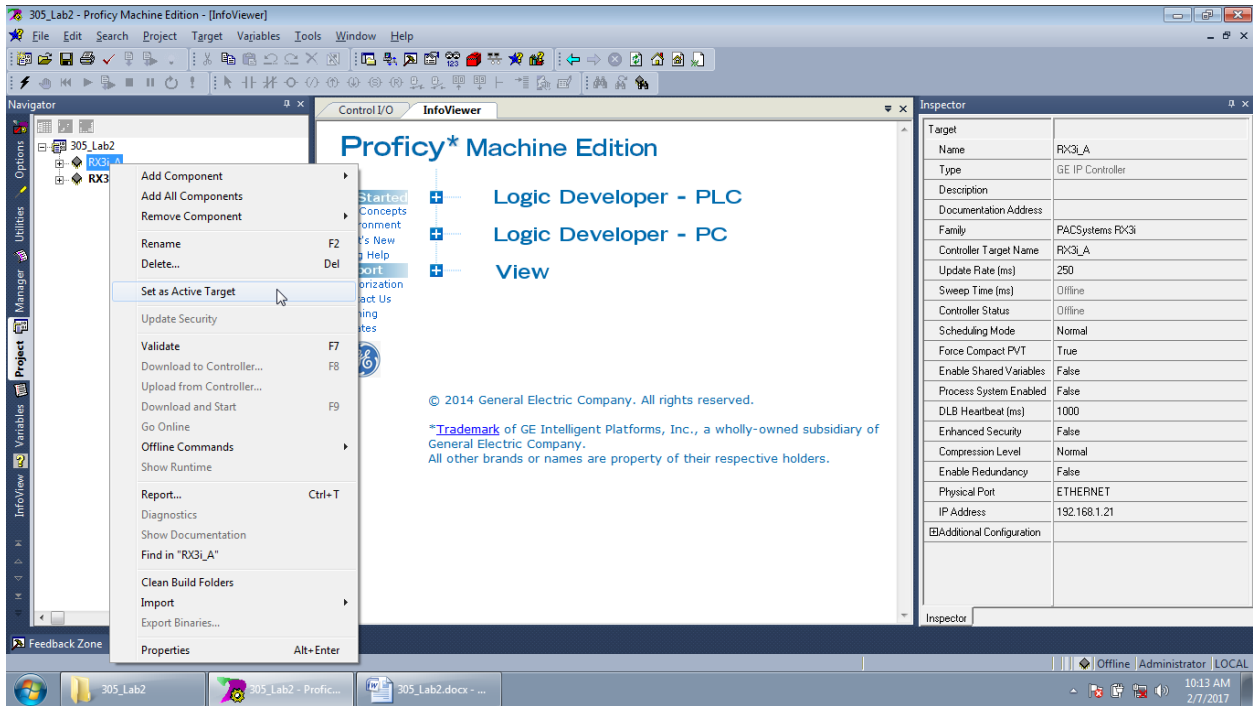
3.2. Tworzenie nowego projektu oraz dodawanie urządzeń

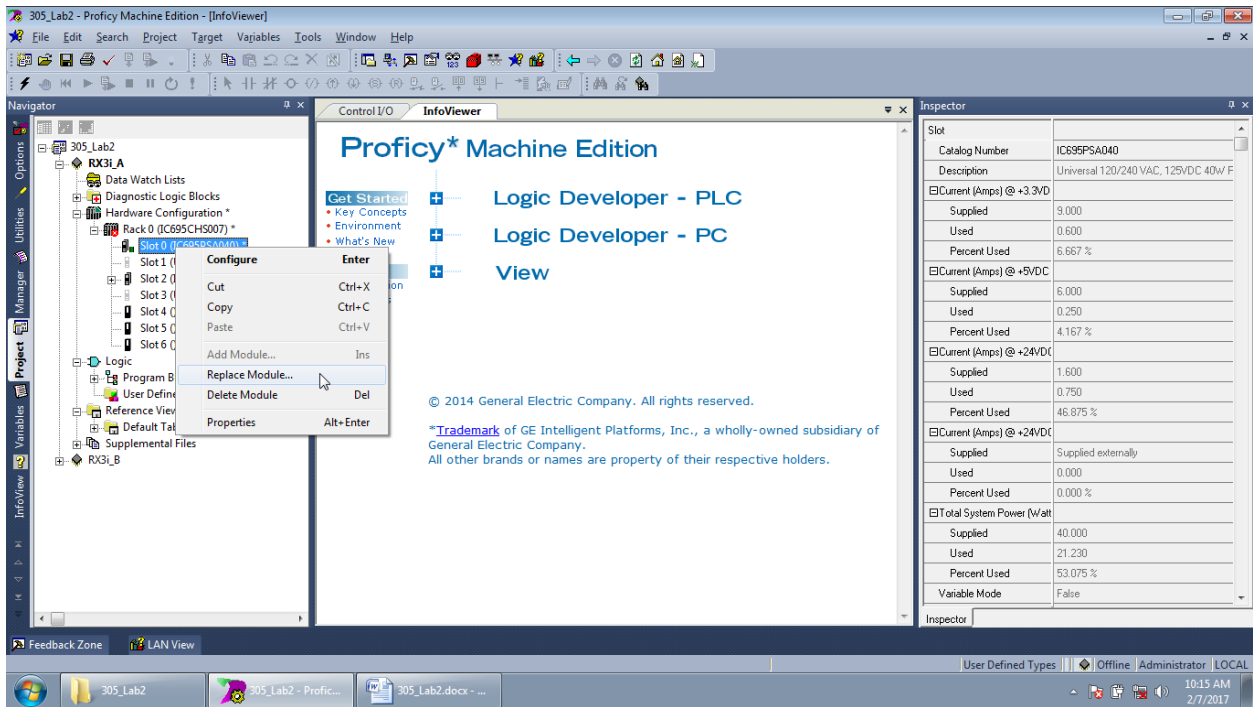
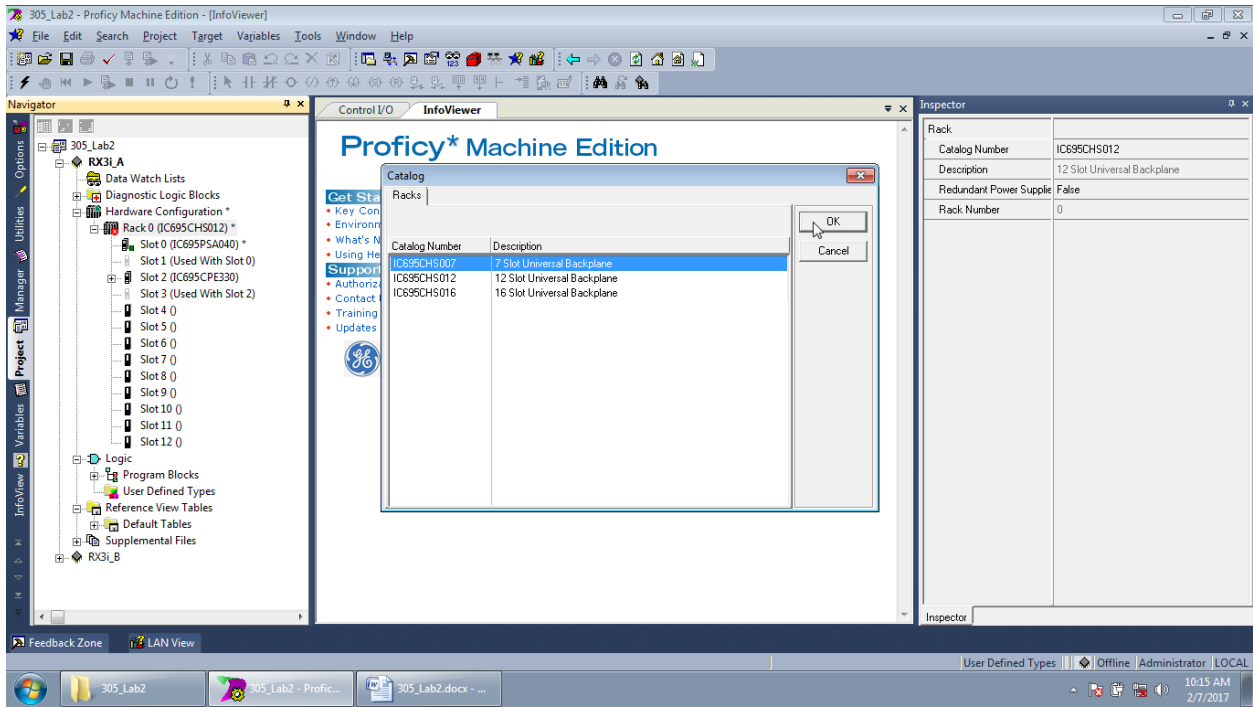






3.3. Konfiguracja pierwszego kontrolera





305_Lab2 - Proficy Machine Edition - [InfoViewer]

File Edit Search Project Target Variables Tools Window Help

Control I/O InfoViewer

Proficy* Machine Edition

Catalog

Power Supplies | Central Processing Unit

| Catalog Number | Description |
|----------------|---|
| IC695PSA040 | Universal 120/240 VAC, 125VDC 40W Power Supply |
| IC695PSA140 | Multifunctional 120/240VAC, 125VDC 40W Power Supply |
| IC695PSD030 | 24VDC 40W Power Supply |
| IC695PSD140 | Multifunctional 24VDC 40W Power Supply |

Inspector

| Slot | Value |
|----------------------------|-------------------------------------|
| Catalog Number | IC695PSA040 |
| Description | Universal 120/240 VAC, 125VDC 40W F |
| EDCurrent (Amps) @ +3.3VDC | 9.000 |
| Supplied | 0.600 |
| Used | 6.667 % |
| Percent Used | 6.667 % |
| EDCurrent (Amps) @ +5VDC | 6.000 |
| Supplied | 0.250 |
| Used | 4.167 % |
| Percent Used | 4.167 % |
| EDCurrent (Amps) @ +24VDC | 1.600 |
| Supplied | 0.750 |
| Used | 46.875 % |
| Percent Used | 46.875 % |
| EDCurrent (Amps) @ +24VDC | Supplied externally |
| Supplied | 0.000 |
| Used | 0.000 % |
| Percent Used | 0.000 % |
| ETotal System Power (Watt) | |
| Supplied | 40.000 |
| Used | 21.230 |
| Percent Used | 53.075 % |
| Variable Mode | False |

Feedback Zone LAN View

User Defined Types Offline Administrator LOCAL

305_Lab2 305_Lab2 - Proficy... 305_Lab2.docx - ... 10:15 AM 2/7/2017

305_Lab2 - Proficy Machine Edition - [InfoViewer]

File Edit Search Project Target Variables Tools Window Help

Control I/O InfoViewer

Proficy* Machine Edition

Get Started

- Logic Developer - PLC
- Logic Developer - PC
- View

Support

- Authorization
- Contact Us
- Training
- Updates

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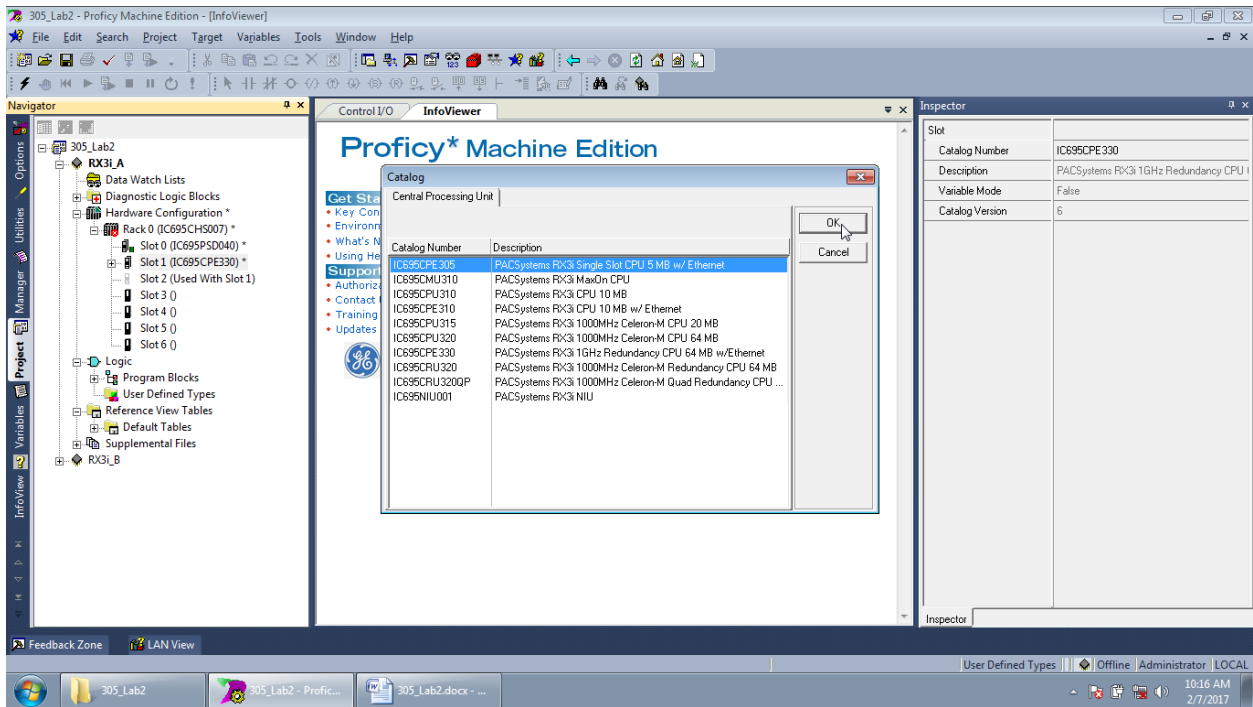
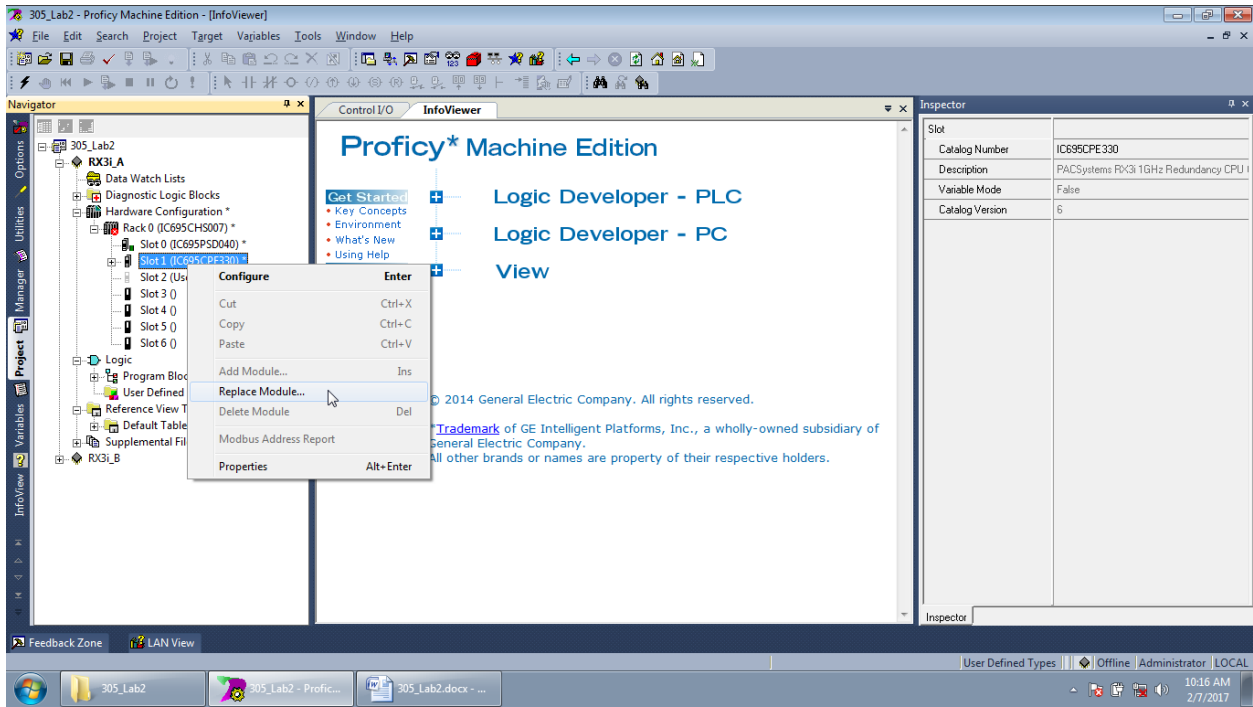
Inspector

| Slot | Value |
|-----------------|-------------------------------------|
| Catalog Number | IC695CPE330 |
| Description | PACSystems RX3i 1GHz Redundancy CPU |
| Variable Mode | False |
| Catalog Version | 6 |

Feedback Zone LAN View

Done User Defined Types Offline Administrator LOCAL

305_Lab2 305_Lab2 - Proficy... 305_Lab2.docx - ... 10:16 AM 2/7/2017



305_Lab2 - Proficy Machine Edition - [(0.1.0) Ethernet [RX3I_A]]

File Edit Search Project Target Variables Parameter Tools Window Help

Control I/O InfoViewer [(0.1) IC695CPE305 [RX3I_A]] [(0.1.0) Ethernet [RX3I_A]] Inspector

Navigator

- 305_Lab2
 - RX3I_A
 - Data Watch Lists
 - Diagnostic Logic Blocks
 - Hardware Configuration
 - Rack 0 (IC695CHS007)
 - Slot 0 (IC695PSD040)
 - Slot 1 (IC695CPE305)
 - Ethernet
 - Slot 2 0
 - Slot 3 0
 - Slot 4 0
 - Slot 5 0
 - Slot 6 0
 - Logic
 - Program Blocks
 - User Defined Types
 - Reference View Tables
 - Default Tables
 - Supplemental Files
 - RX3I_B

Settings

| Parameters | Values |
|--------------------|---------------|
| Configuration Mode | TCP/IP |
| Adapter Name | 0.1.0 |
| IP Address | 192.168.1.21 |
| Subnet Mask | 255.255.255.0 |
| Gateway IP Address | 0.0.0.0 |
| Status Address | %R00001 |
| Length | 5 |
| I/O Scan Set | 1 |

Inspector

| Slot | |
|-----------------|---|
| Catalog Number | IC695CPE305 |
| Description | FACSystems RX3i Single Slot CPU 5 MB w/ |
| Variable Mode | False |
| Catalog Version | 3 |

Done

User Defined Types Offline Administrator LOCAL

10:17 AM 2/7/2017

305_Lab2 - Proficy Machine Edition

File Edit Search Project Target Variables Tools Window Help

Navigator

- 305_Lab2
 - RX3I_A
 - Data Watch Lists
 - Diagnostic Logic Blocks
 - Hardware Configuration
 - Rack 0 (IC695CHS007)
 - Slot 0 (IC695PSD040)
 - Slot 1 (IC695CPE305)
 - Ethernet
 - Slot 2
 - Slot 3
 - Slot 4
 - Slot 5
 - Slot 6
 - Logic
 - Program
 - User Defi
 - Reference Vi
 - Default T
 - Supplement
 - RX3I_B

Inspector

| Slot | |
|-----------------|-------|
| Catalog Number | |
| Description | |
| Variable Mode | False |
| Catalog Version | |

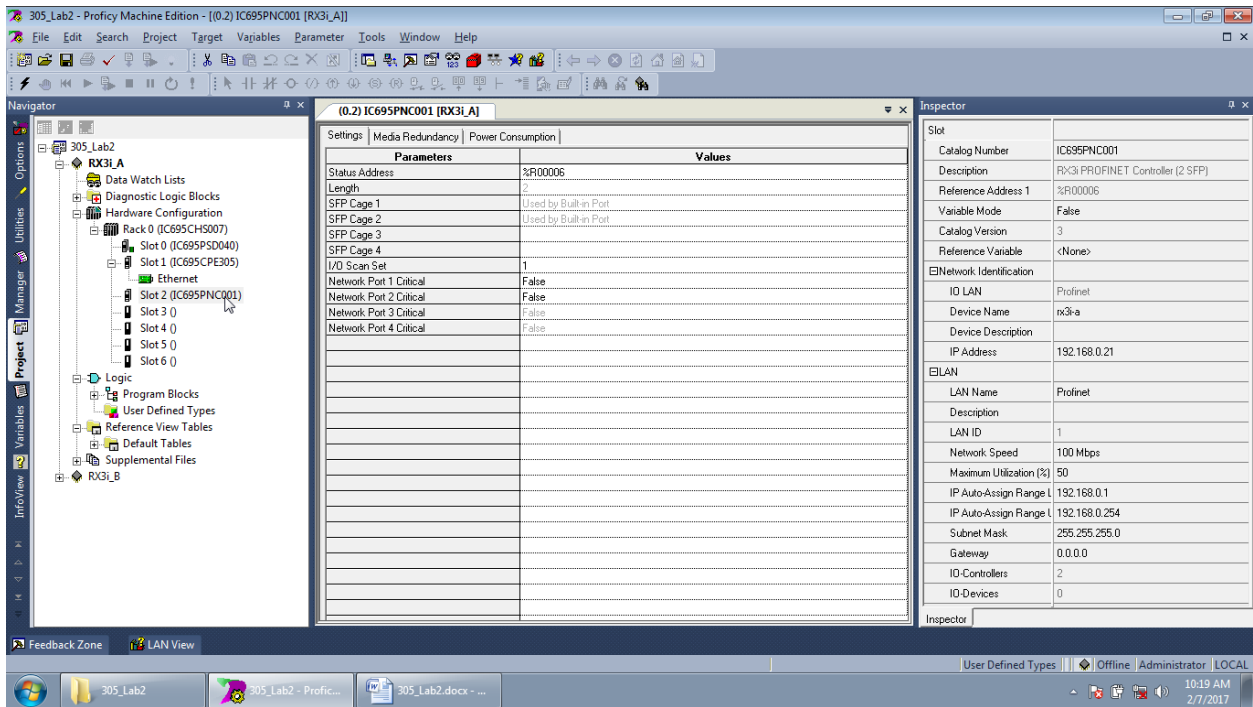
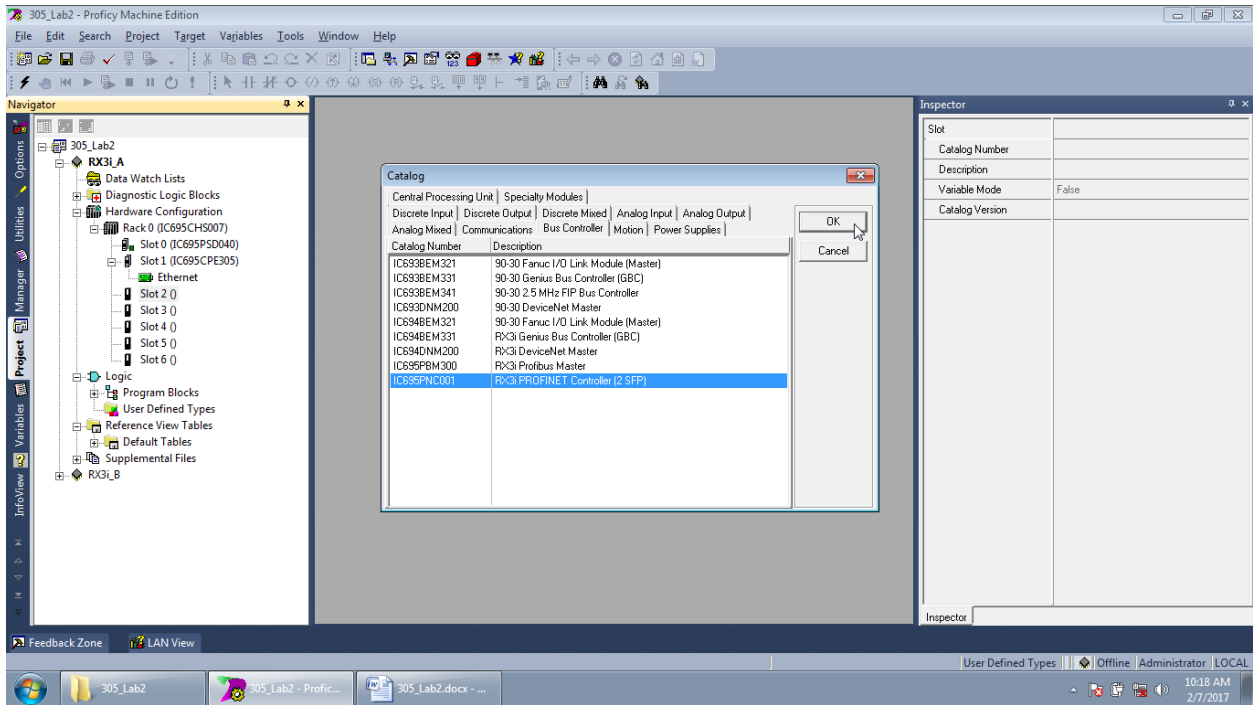
Context Menu:

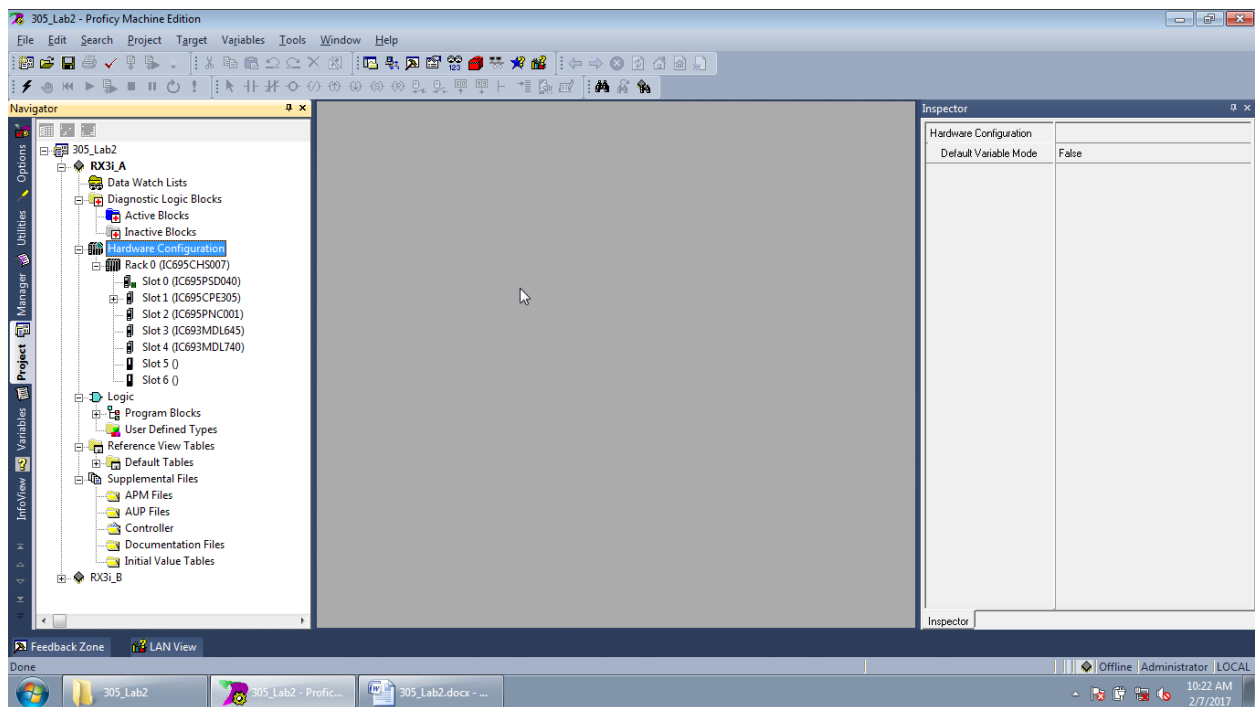
- Configure Enter
- Cut Ctrl+X
- Copy Ctrl+C
- Paste Ctrl+V
- Add Module... Ins
- Replace Module...
- Delete Module Del
- Properties Alt+Enter

Done

User Defined Types Offline Administrator LOCAL

10:18 AM 2/7/2017

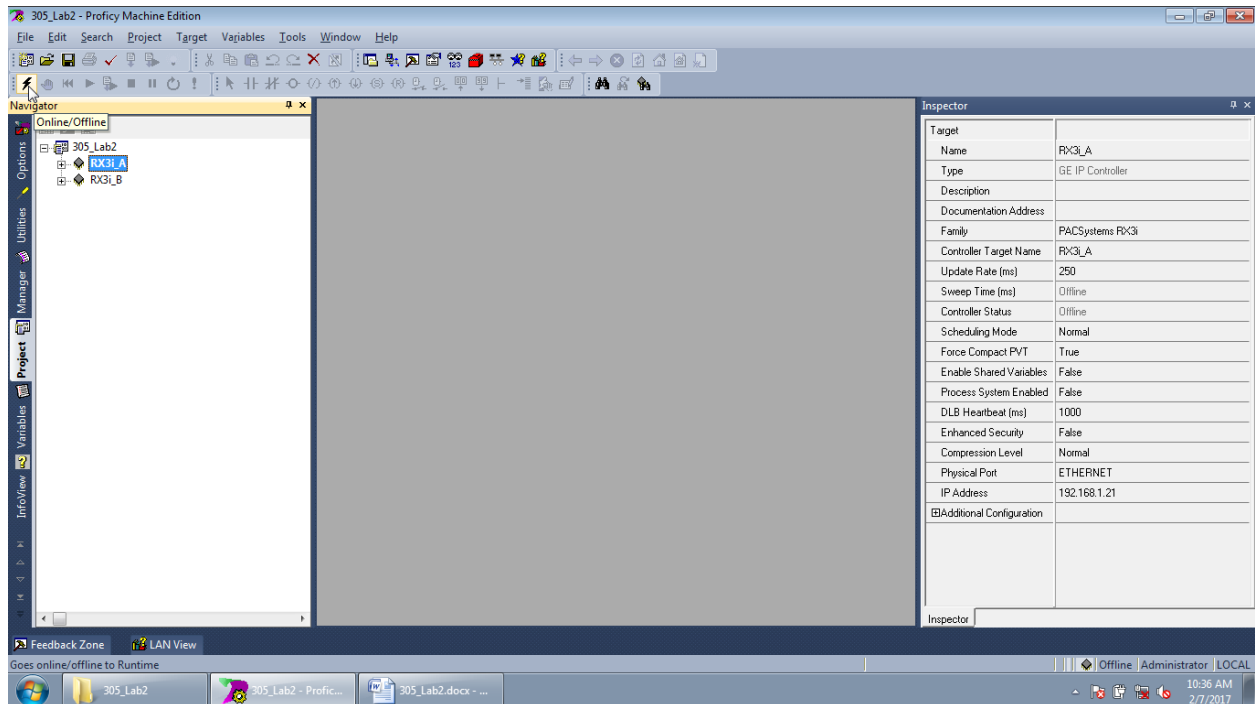
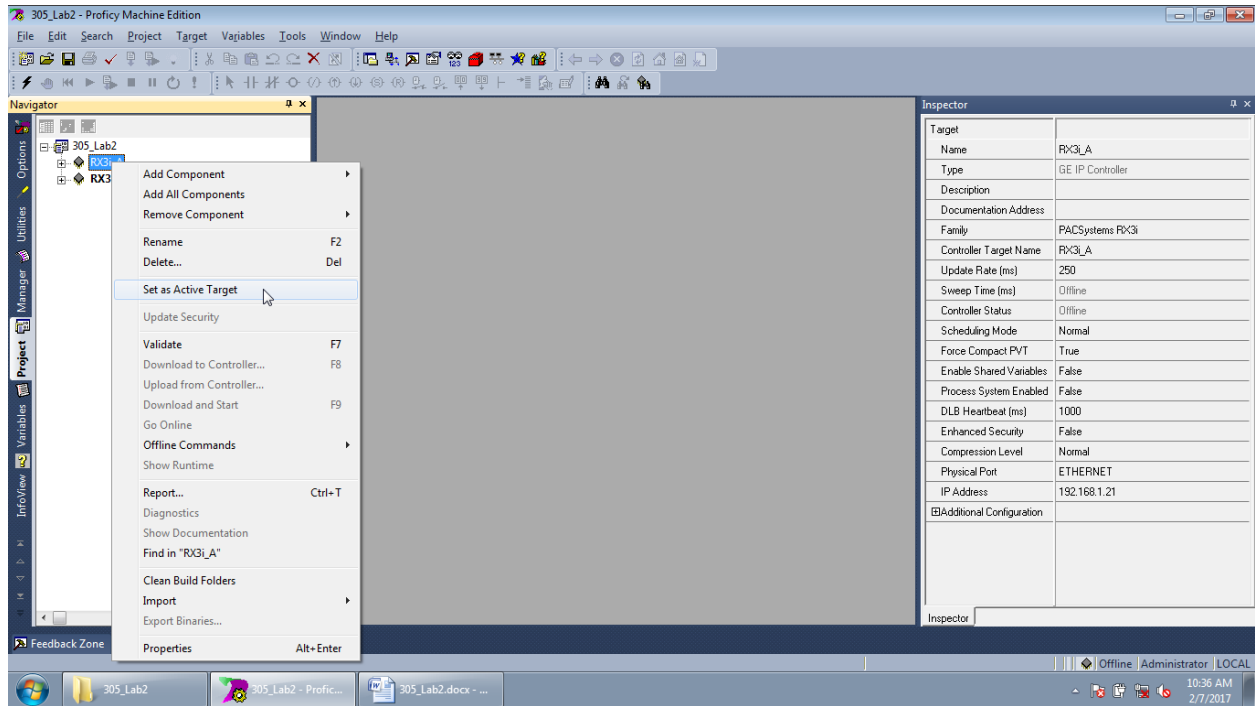




3.4. Konfiguracja drugiego kontrolera

Konfigurację przeprowadzi na podstawie konfiguracji pierwszego kontrolera oraz dokumentacji techniczno-ruchowej. Zwrócić uwagę na moduły zainstalowane w głównej szafie sterowniczej.

3.5. Wgrywanie ustawień do pierwszego kontrolera



305_Lab2 - Proficy Machine Edition - [InfoViewer]

File Edit Search Project Target Variables Tools Window Help

Toggle Online Mode

305_Lab2

- RX3I_A
- RX3I_B

Proficy* Machine Edition

Get Started

- Key Concepts
- Environment
- What's New
- Using Help

Support

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Logic Developer - PLC

Logic Developer - PC

View

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| Target | |
|--------------------------|------------------|
| Name | RX3I_A |
| Type | GE IP Controller |
| Description | |
| Documentation Address | |
| Family | PACSystems RX3I |
| Controller Target Name | RX3I_A |
| Update Rate (ms) | 250 |
| Sweep Time (ms) | 0.0 |
| Controller Status | Stop Disabled |
| Scheduling Mode | Normal |
| Force Compact PVT | True |
| Enable Shared Variables | False |
| Process System Enabled | False |
| DLB Heartbeat (ms) | 1000 |
| Enhanced Security | False |
| Compression Level | Normal |
| Physical Port | ETHERNET |
| IP Address | 192.168.1.21 |
| Additional Configuration | |

Feedback Zone LAN View

Toggles between Programmer/Monitor mode when online

Monitor, Stop Disabled, Config NE, Logic NE, Sweep= 0.0 ms Administrator LOCAL

305_Lab2 305_Lab2 - Profic... 305_Lab2.docx - ... 11:48 AM 2/7/2017

305_Lab2 - Proficy Machine Edition - [InfoViewer]

File Edit Search Project Target Variables Tools Window Help

Stop Active Target

305_Lab2

- RX3I_A
- RX3I_B

Proficy* Machine Edition

Get Started

- Key Concepts
- Environment
- What's New
- Using Help

Support

- Authorization
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View

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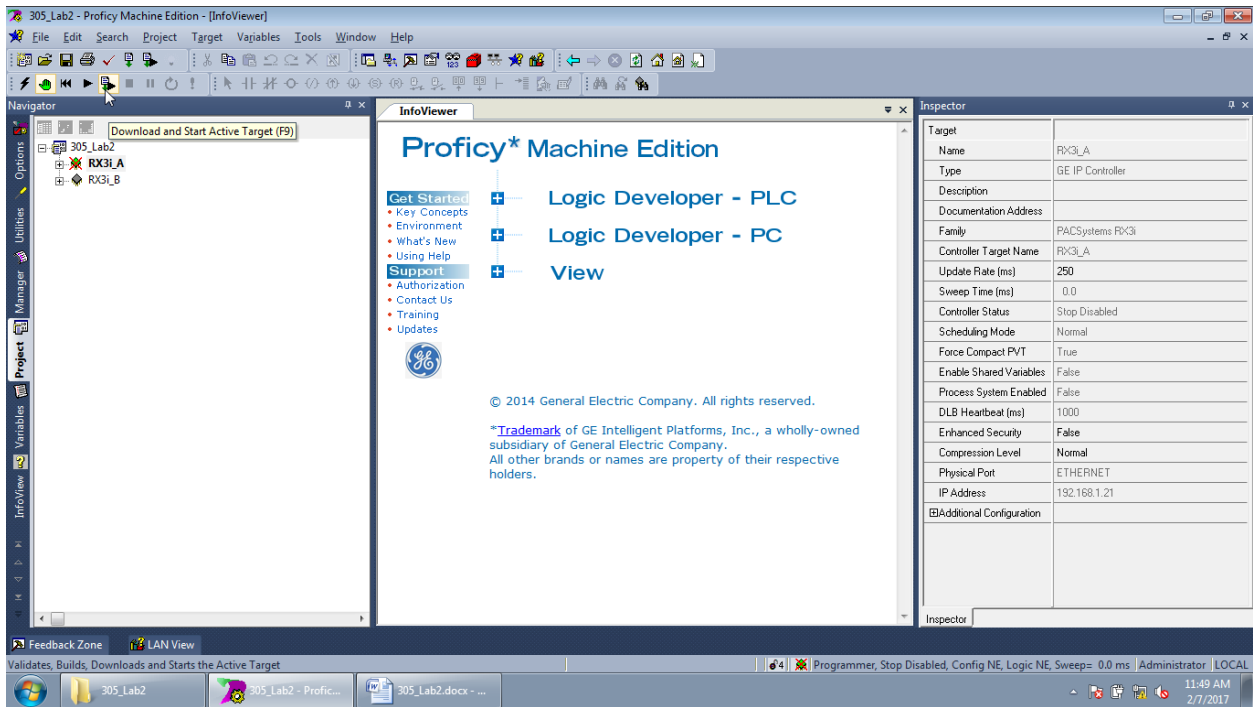
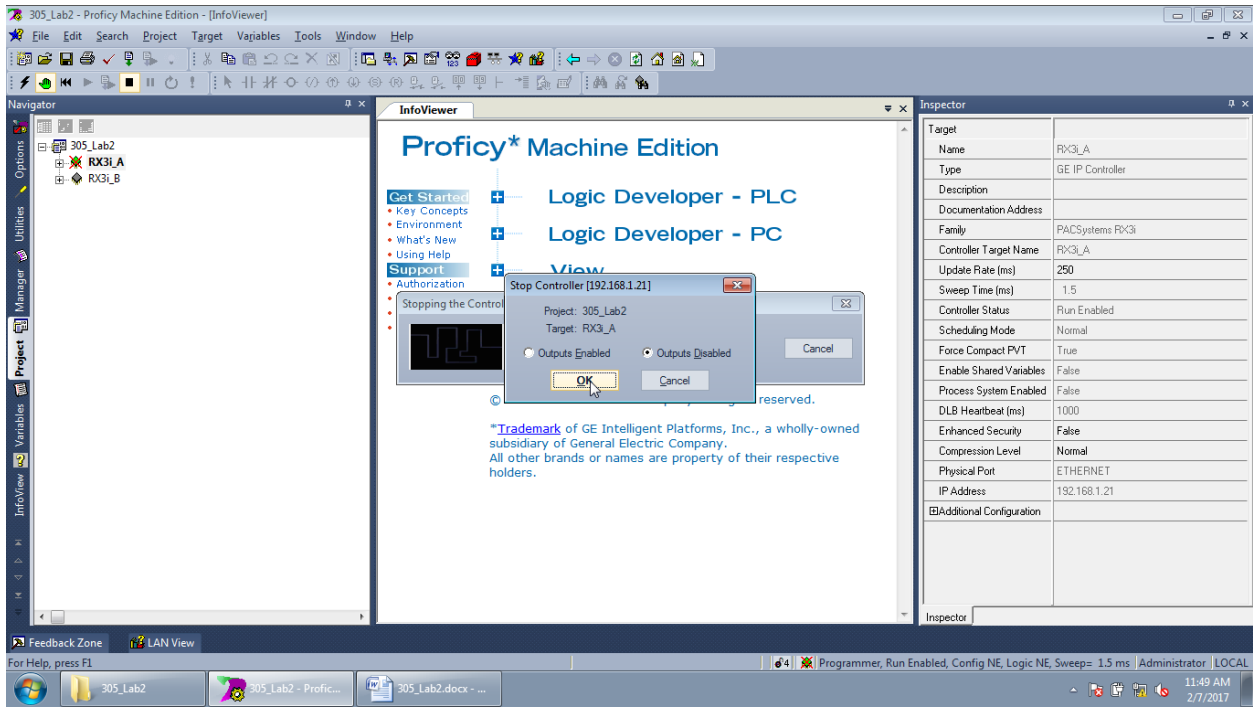
| Target | |
|--------------------------|------------------|
| Name | RX3I_A |
| Type | GE IP Controller |
| Description | |
| Documentation Address | |
| Family | PACSystems RX3I |
| Controller Target Name | RX3I_A |
| Update Rate (ms) | 250 |
| Sweep Time (ms) | 1.4 |
| Controller Status | Run Enabled |
| Scheduling Mode | Normal |
| Force Compact PVT | True |
| Enable Shared Variables | False |
| Process System Enabled | False |
| DLB Heartbeat (ms) | 1000 |
| Enhanced Security | False |
| Compression Level | Normal |
| Physical Port | ETHERNET |
| IP Address | 192.168.1.21 |
| Additional Configuration | |

Feedback Zone LAN View

Stops Active Target

Programmer, Run Enabled, Config NE, Logic NE, Sweep= 1.4 ms Administrator LOCAL

305_Lab2 305_Lab2 - Profic... 305_Lab2.docx - ... 11:49 AM 2/7/2017



305_Lab2 - Proficy Machine Edition - [InfoViewer]

File Edit Search Project Target Variables Tools Window Help

305_Lab2
 RX3I_A
 RX3I_B

Proficy* Machine Edition

Get Started
 • Key Concepts
 • Environment
 • What's New
 • Using Help

Support
 • Authorization
 • Starting Controller

Start Controller [192.168.1.21]

Project: 305_Lab2
 Target: RX3I_A

Outputs Enabled Outputs Disabled

OK Cancel

reserved.

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| Target | |
|--------------------------|------------------|
| Name | RX3I_A |
| Type | GE IP Controller |
| Description | |
| Documentation Address | |
| Family | PACSystems RX3I |
| Controller Target Name | RX3I_A |
| Update Rate (ms) | 250 |
| Sweep Time (ms) | 0.0 |
| Controller Status | Stop Disabled |
| Scheduling Mode | Normal |
| Force Compact PVT | True |
| Enable Shared Variables | False |
| Process System Enabled | False |
| DLB Heartbeat (ms) | 1000 |
| Enhanced Security | False |
| Compression Level | Normal |
| Physical Port | ETHERNET |
| IP Address | 192.168.1.21 |
| Additional Configuration | |

Inspector

Feedback Zone LAN View

Downloading: BuildVersion.xml

Programmer, Stop Disabled, Config EQ, Logic EQ, Sweep= 0.0 ms Administrator LOCAL

11:50 AM
2/7/2017

3.6. Wgrywanie ustawień do drugiego kontrolera

Wgrywanie ustawień odbywa się na tej samej zasadzie jak przy pierwszym kontrolerze.

UWAGA!!!: Istnieją możliwości wgrywania ustawień tylko i wyłącznie do jednego urządzenia. Aby wgrać ustawienia do drugiego kontrolera należy ustawić kontroler, jako aktywny w programie PME (rysunek poniżej). Jeżeli chcemy wgrać ustawienia pierwszego kontrolera należy go ustawić ponownie na aktywny.

