

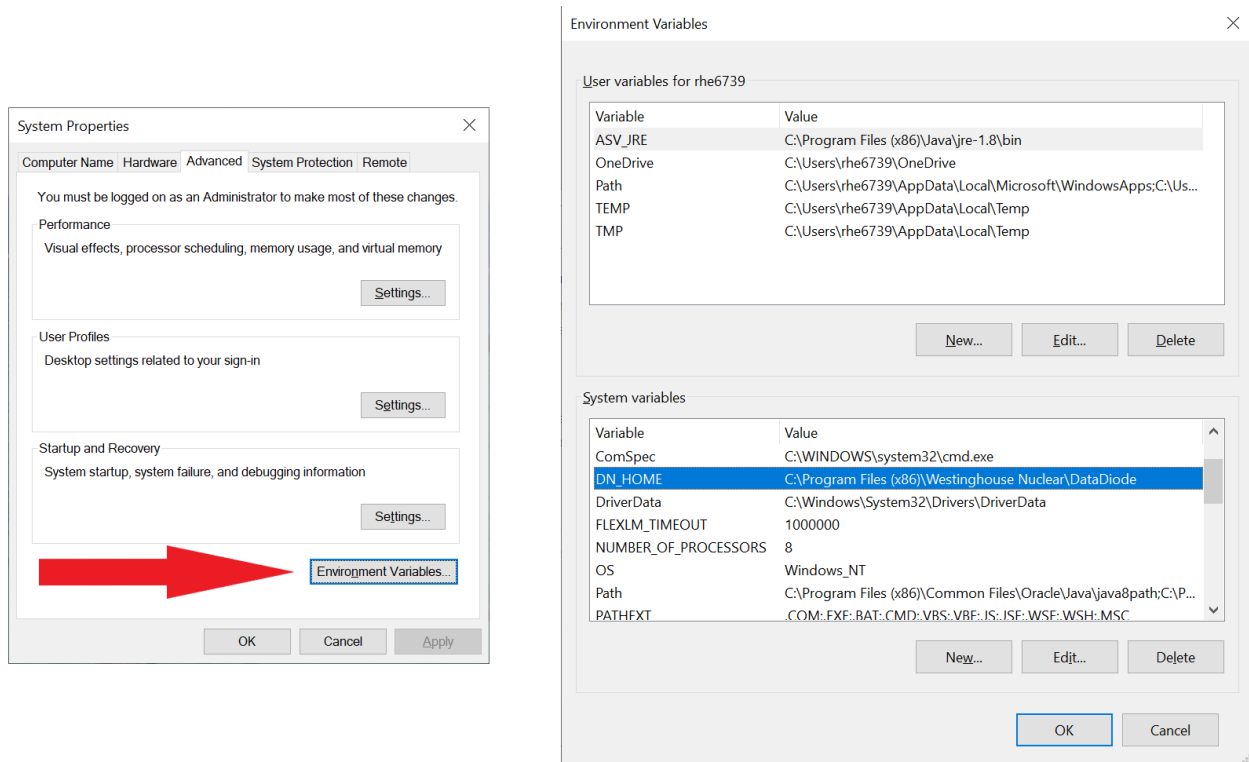
Steps of simulator installation

- 1) Copy **DataDiode** directory from zip file **Simulator.zip** to this path: **C:\Program Files (x86)\Westinghouse Nuclear**
- 2) Open command line as Administrator and go to the path **C:\Program Files (x86)\Westinghouse Nuclear\DataDiode\bin** and execute the following:

DnLogger.exe -i

DnManager.exe -i

- 3) Set the System (not User) variable **DN_HOME** pointing to the base directory - **C:\Program Files (86)\Westinghouse Nuclear\DataDiode**



- 4) Open **Task Manager** and go to the **Services** tab.
- 5) Find installed services **DD Logger** and **DD Manager** and start them.
- 6) In the directory **C:\Program Files (x86)\Westinghouse Nuclear\DataDiode\bin** open **DnMonitor.exe**
- 7) In the shown window, there is a list of configured datalinks

Simulator configuration example

All configuration files are in the path **C:\Program Files (x86)\Westinghouse Nuclear\DataDiode\etc**

Configuration files content example:

applications.cfg

#One line defines execution of one datalink with name, exe-file and configuration file

1_204Y_PFS, DnModbusMaster.exe %DN_HOME%/etc/1_204Y_PFS.cfg

1_204Y_PFS_100MS, DnModbusMaster.exe %DN_HOME%/etc/1_204Y_PFS_100MS.cfg

One line defines execution of one datalink with name, exe file and configuration file.

1_204Y_PFS.cfg

LinkName : 1_204Y_PFS
GroupFile : %DN_HOME%/etc/1_204Y_PFS.group
WatchdogTimeout : 10
DeviceType : TCP
ServerAddressP : 1.0.0.1
PortP : 6000
ExecutionInterval : 1000
ModbusExeInterval : 1000
LogLevel : 3
AlarmPoint : 1HT39P113B1_PFS_MOD

1_204Y_PFS_100MS.cfg

LinkName : 1_204Y_PFS_100MS
GroupFile : %DN_HOME%/etc/1_204Y_PFS_100MS.group
WatchdogTimeout : 10
DeviceType : TCP
ServerAddressP : 1.0.0.1
PortP : 6000
ExecutionInterval : 100
ModbusExeInterval : 100
LogLevel : 3
AlarmPoint : 1HT39P113B1_PFS_MDF

1_204Y_PFS_100MS.group

```
#/GROUP, Name, Num, SlaveNum, Cmd, Format  
/GROUP, PFS_100MS, 1, 1, RHR, 2
```

```
#Point, RegAdrs, DataType  
1YC00X001 , 519 , FLOAT  
1YC00X002 , 522 , FLOAT  
1YC00X003 , 525 , FLOAT  
1YC00X011IN , 528 , FLOAT  
1YC00X012IN , 531 , FLOAT  
1YC00X013IN , 534 , FLOAT  
1YC00X901AVG , 537 , FLOAT
```

Note: Format 2 means transfer also quality in addition to value. In this case one point with record type FLOAT takes 3 registers (floating point number takes 4 bytes - thus 2 registers, and one register is for quality information).

Highway.spd

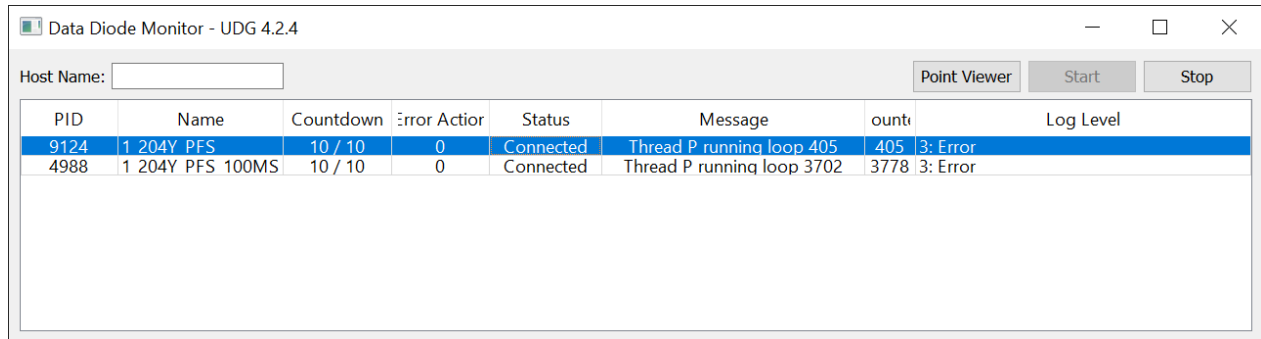
```
1RA01T001 , A  
1RA01P001 , A  
1RL21T002 , A  
1RL22T002 , A  
1SE83MW , A  
1RL01T001 , A  
1RL26T002 , A  
1SE83WSR , A  
1RA04T001 , A  
1SE04P010 , A  
1HT39P113B1_PFS_MOD, D  
...  
...  
...
```

In the file **highway.spd** must be all points which are defined in **cfg** and **group** files.

The letter “**A**” means analog point, “**D**” digital and “**P**” packed.

Datalink functionality and point values and qualities

GUI example:



Point list example:

Name	Type	Value	Quality
1TV70Q002	Analog LA	7.66	Good
1TV70Q003	Analog LA	19.98	Good
1TV70Q004	Analog LA	96.01	Good
1TV70Q005	Analog LA	5.52	Good
1TV70Q006	Analog LA	24.16	Good
1TV70Q007	Analog LA	0.62	Good
1TV85F001	Digital LD	1	Good
1TV85F011	Digital LD	0	Good
1TV85F021	Digital LD	1	Good
1TV85F031	Digital LD	1	Good
1TV85F041	Digital LD	1	Good
1TV85T001	Digital LD	0	Good

Also, it is possible to run Modbus Master from command line in the “**bin**” directory with various levels of debug. Here is an example of command with debug level 8:

DnModbusMaster.exe -d 8 ..\etc\1_204Y_PFS.cfg

Detailed information about datalink functionality is then written in the command line.