TCP/IP
TECHNICAL NOTE

There are some ETEL devices which allow direct connection through TCP/IP: AccurET and UltimET TCP/IP

1. CONNECTION TO AN ACCURET

Both, direct connection or connection via network to an AccurET are possible.
Only a single connection to an AccurET is allowed. You cannot have 2 applications connected to the same AccurET at the same time.

1.1. Opening Connection

The general syntax, when opening an EDI driver is:

dsa_open_u(DSA_DEVICE *dev, char_cp url);

The parameter « url » specifies the type of driver to be used and has the following general syntax:

etb : <driver> **:**<axis>

For a connection to an AccurET, the driver has the following syntax:

etn://<IP Address>[:1129]

You can specify the port (1129), but this is not necessary

Examples:

Opening an AccurET 0 with IP address 192.168.10.10, specifying the port:

```
DSA_DRIVE *drv = NULL;
int err;
if (err = dsa_create_drive(&drv))
        goto _error;
if (err = dsa_open(drv, "etb:etn://192.168.10.10:1129:0");
        goto _error;
```

Opening an AccurET 1 with IP address 172.22.10.110 without pecifying the port:

```
DSA_DRIVE *drv = NULL;
int err;
if (err = dsa_create_drive(&drv))
        goto _error;
if (err = dsa_open(drv, "etb:etn://172.22.10.110:1");
        goto _error;
```

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2.   CONNECTION TO AN ULTIMET

(From EDI 3.03A)

Both, direct connection or connection via network to an UltimET are possible.
Two applications can open the connection to the UltimET at the same time, but they have to use 2 different ports :1129(default) and 1128.

2.1.   Opening Connection

The general syntax, when opening an EDI driver is:

dsa_open_u(DSA_DEVICE *dev, char_cp url);

The parameter « url » specifies the type of driver to be used and has the following general syntax:

etb : <driver> **:**<axis>

For a connection to an AccurET, the driver has the following syntax:

etn://<IP Address>[:1129 | :1128]

You can specify the port (1129 or 1128), but this is not necessary. If you don't specify the port, port 1129 is used.

Examples:

Opening a drive 0, connected through TransNET to an UltimET with IP address 192.168.10.10, using the port 1129:

DSA_DRIVE *drv = NULL;

int err;

if (err = dsa_create_drive(&drv))

goto _error;

if (err = dsa_open(drv, "etb:etn://192.168.10.10:1129:0");

goto _error;

Opening an UltimET itself with IP address 172.22.10.110 without specifying the port:

DSA_DSMAX *dsm = NULL;

int err;

if (err = dsa_create_dsmax(&dsm))

goto _error;

if (err = dsa_open(dsm, "etb:etn://172.22.10.110:*");

goto _error;

3.   USING TCP/IP CONNECTION ON WINDOWS RTX

(From EDI 3.03A)

To use EDI, RTX TCP/IP stack must be started, even you do not use TCP/IP connection.
To avoid error message, you have to specify a configuration file without any Ethernet board configured.

Example of RTX configuration file without any TCP/IP board:

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```
[TCP/IP]
MemoryInK=256
TickInterval=200
MaxSockets=30
TimerPriority=66
NumStartupEvents=50
NumOfInterfaces=0
```
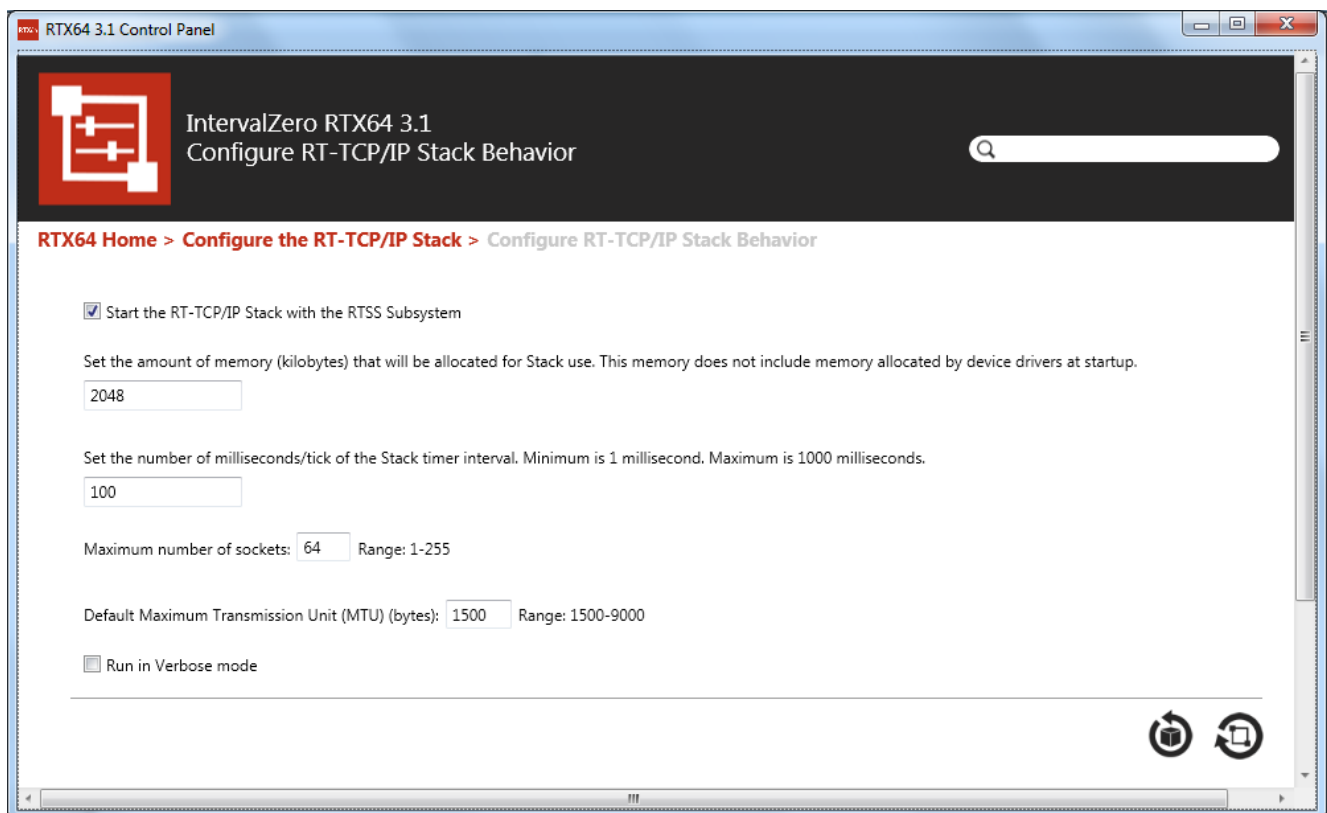
RTX cannot share the interrupts between PCI boards driven by Windows and PCI boards driven by RTX. You must also choose an interrupt that is exclusively used by the RTX board.
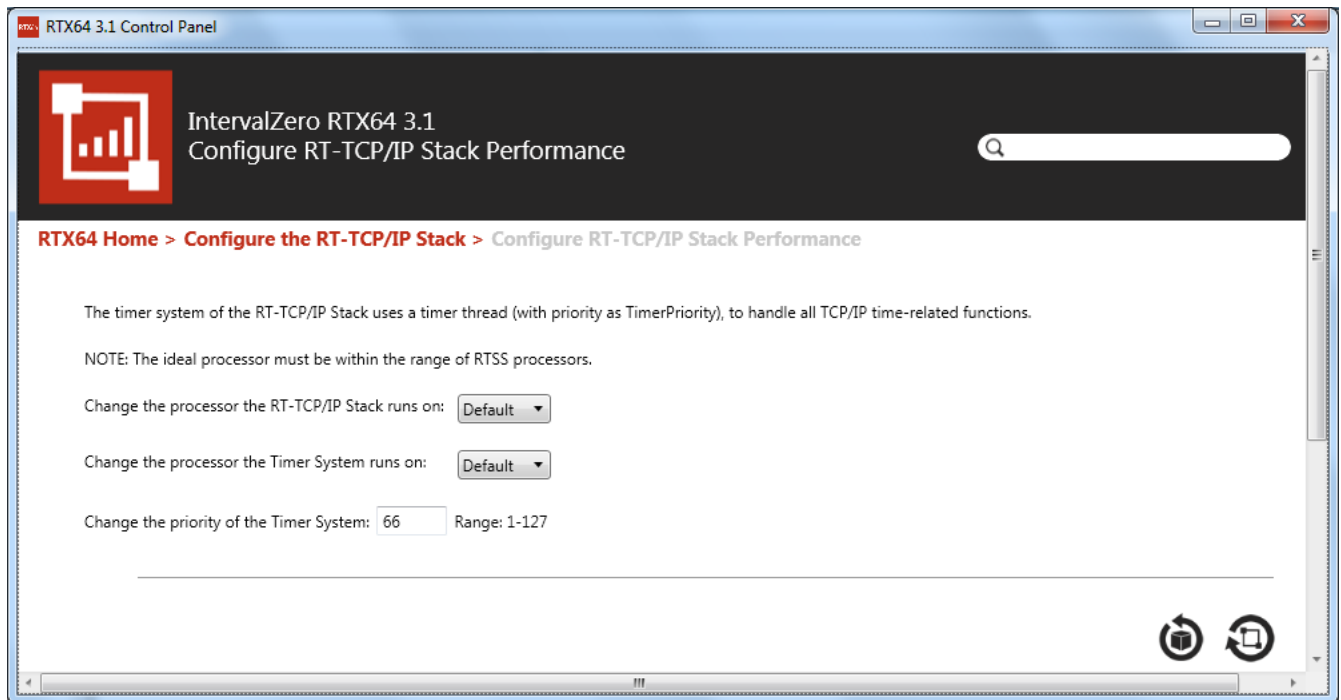
4.   USING TCP/IP CONNECTION ON WINDOWS RTX64 3.1

(From EDI 4.17beta1)

To use EDI, RTX64 TCP/IP stack must be started, even you do not use TCP/IP connection.

Example of RTX64 without any TCP/IP board:

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RTX64 cannot share the interrupts between PCI/PCIe boards driven by Windows and PCI/PCIe boards driven by RTX64. You must also choose an interrupt that is exclusively used by the RTX64 board.

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