RS485 - quickstart

I.Installation and overview:

Package allow to work with ports rs485 and rs232, by i2c. Also includes support for adc and onewire, they are available at startup.

Installation

To install update please use sytnax on your x500/modberry device via console:

```
softmgr update rs485
```

After installation PLEASE REBOOT DEVICE!

After restart your ports are ready to use. To configure them you've got to use 'comctrl' and 'service_port_ctrl' application.

To temporarily change BAUDRATE for current session (restart takes it to defaults) you can use application alled stty. Example of use:

```
stty -F /dev/ttyAMA0 <BAUDRATE>
```

```
stty -F /dev/ttyAMA0 9600
```

To change defaults you need to edit '/etc/rc.local' file and change lines

```
stty -F /dev/ttySC0 115200 -brkint -icrnl -imaxbel -opost -isig -icanon -iexten -echo min 1 time 0
```

```
stty -F /dev/ttyAMA0 115200 -brkint -icrnl -imaxbel -opost -isig -icanon -iexten -echo min 1 time 0
```

Update

To check actual version of package write command

```
getenv | grep RS485
```

result of this will be similar to

```
RS485_VERSION=1503311245
```

To update a package, type the same command as in the installation.

```
softmgr update rs485
```

II.Applications and managment

1.comctrl application -

Is used to control settings of Serial Connections ports. You can read current settings of ports using command:

```
comctrl -r
```

To change settings of ports you can use this example:

```
comctrl 1 RS-232 2 RS-485
```

For more info please type 'comctrl' and read help

COM1 and COM4 - /dev/ttyAMA0

COM2 and COM3 - /dev/ttySC0

Usage: comctrl [-r] [-d] [-b] [-t] [-h] [<uart> <mode>]*

```
    -r read currently running configuration
    -d read saved configuration (which will be loaded during boot)
    -b restore saved configuration
    -t make configuration change temporary (don't change boot settings)
    -h print this help message

    one or more pairs of <uart> <mode>, where:
    <uart> - controller index (1 or 2)
    <mode> - RS-232 or RS-485
    NOTE: controller #1 handles COM1 and COM4; controller #2 COM2 and COM3
```

Examples:

```
# show what will be configured on next boot
/home/pi/x500-RS485/files/comctrl -d
# use COM3
/home/pi/x500-RS485/files/comctrl 2 RS-485
# use COM1 and COM4
/home/pi/x500-RS485/files/comctrl 1 RS-232 2 RS-485
# temporarily (without changing boot configuration) use COM1 and COM2
/home/pi/x500-RS485/files/comctrl -t 1 RS-232 2 RS-232
```

2.service_port_ctrl application -

Takes its arguments on / off. The default value is on.

Example usage : `service_port_ctrl off` - need to reboot to changes take effect

Used to enable or disable the service connector of RS232.

NOTE When value is set to ON there is limited access to the RS232 on that communication port /dev/ttyAMA0 - COM1