

SV TEHS SIA

Development Tools for Java™

IPVES Application Note 07:

I/O show

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IPJV-ES Application Note 07: I/O show

V 1.0

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Ruses 14-24 • LV1029 • Riga • Latvia

Phone: +371-9237495 +371-9223895 • Fax: +371-7332773

Email: info@svtehs.com • Web: <http://www.svtehs.com>

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Introduction

IPJV-ES Development Board can be used in different applications.

The IPJV-ES Development Board with embedded virtual machine for Java™ offers an Ethernet based connection to the Internet and numerous interface possibilities to other equipment, include serial RS-232 DTE interface, serializer module with UART, SPI, GPSI and 10BASE-T Ethernet support, 6-channel 10-bit A/D inputs, analog comparator and 16 I/O pins.

The IPJVM virtual machine for Java is a clean room implementation, that has been specially optimized to run on device with limited amount of internal memory and designed for Java™ 2 Platform, Micro Edition (J2ME™) Connected Device Configuration (CDC) Foundation Profile.

A complete development toolkit available for application development with IPJVM platform. The IPJVM platform provide system designers and software developers simple, flexible and cost-effective solution for embedded Internet application rapid development and prototyping. The platform is combination of Uvicom IP2022 Internet Processor and a Java programmable runtime environment.

The IPJV-ES Development Board based on Uvicom IP2022 Internet Processor, optimized for Internet-edge applications. It handles protocol processing in software instead of in hard-wired logic, making the whole solution more adaptable to evolving standards and allow designer to use the same solution across a wide variety of internet-edge products simply by changing the software, thereby significantly reducing nonrecurring engineering (NRE) costs.

Typical IPJV-ES applications include Includes HTTP/FTP/SMTP/SNMP/Telnet servers, PPP support on embedded UARTs, encryption, security and authentication tools, reporting and alarming via e-mail, remote monitoring, control, management and maintenance.

Updates

New versions of the IPJV-ES software and applications can be obtained from the manufacturer's web site at:

<http://www.svtehs.com/ipjv.htm>

I/O show

Showing analog and digital input and output control from web site.

This application show, how to control outputs and show inputs level from the web site. TestWWW.java starts WWW server. All inputs and outputs levels can be changed with ioportcgi.java.

The screenshot shows a web browser window with the title "Input/Output Ports - Microsoft Int...". The address bar shows "F:\info\ipj\update\samp...". The main content area displays the title "Input/Output Ports" and a table of ports. Below the table are "Set" and "Refresh" buttons. The status bar at the bottom shows "Done" and "Internet".

Port	In/Out	Low/High	Level
RA0	<input checked="" type="radio"/> <input type="radio"/>	<input checked="" type="radio"/> <input type="radio"/>	H
RA1	<input type="radio"/> <input checked="" type="radio"/>	<input checked="" type="radio"/> <input type="radio"/>	L
RA2	<input type="radio"/> <input checked="" type="radio"/>	<input type="radio"/> <input checked="" type="radio"/>	H
RA3	<input checked="" type="radio"/> <input type="radio"/>	<input checked="" type="radio"/> <input type="radio"/>	H
RB0	<input checked="" type="radio"/> <input type="radio"/>	<input checked="" type="radio"/> <input type="radio"/>	H
RB1	<input checked="" type="radio"/> <input type="radio"/>	<input checked="" type="radio"/> <input type="radio"/>	H
RB2	<input checked="" type="radio"/> <input type="radio"/>	<input checked="" type="radio"/> <input type="radio"/>	H
RB3	<input checked="" type="radio"/> <input type="radio"/>	<input checked="" type="radio"/> <input type="radio"/>	H
RF2	<input checked="" type="radio"/> <input type="radio"/>	<input checked="" type="radio"/> <input type="radio"/>	L
RF3	<input checked="" type="radio"/> <input type="radio"/>	<input checked="" type="radio"/> <input type="radio"/>	L
RF4	<input checked="" type="radio"/> <input type="radio"/>	<input checked="" type="radio"/> <input type="radio"/>	H
RF6	<input checked="" type="radio"/> <input type="radio"/>	<input checked="" type="radio"/> <input type="radio"/>	H
RG0			300
RG1			307
RG2			300
RG3			304
RG6			308
RG7			309

Set Refresh

When the button “Set” pressed, state of the following digital ports obtained from the pins: RAIN0...3, RBIN0...3, RFIN2, RFIN3, RFIN4, RFIN6.

```
import java.util.*;
import java.io.*;
import java.net.*;
import com.decaf.*;
class ioportcgi extends getCGI {
public ioportcgi(Properties Info,PrintStream Out) {
    super(Info,Out);
    outOK();
    int j;
    PrintHd("Input/Output Ports");
    if (query.getProperty("BUTTON","").equals("Set"))
        {
        for (j=0;j<4;j++)
            { setDigPin(PortIO.RAIN,j,query); }
        for (j=0;j<4;j++)
            { setDigPin(PortIO.RBIN,j,query); }
        setDigPin(PortIO.RFIN,2,query);
        setDigPin(PortIO.RFIN,3,query);
        setDigPin(PortIO.RFIN,4,query);
        setDigPin(PortIO.RFIN,6,query);
        }
}
```

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