



Venus Serial Port Mode Selection & DIO Linux Demo Application

VENUS

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This software is designed for use with Diamond Systems Venus SBC and later on Linux OS which has 6.11 kernel version. This software is tested on Ubuntu-24.04 64 bit (6.11.x).

C Demo programs

- This demo package contains a collection of “console” programs written in C that demonstrate the use of the Diamond Systems Venus SBC Serial Port mode selection demo Application to control the VENUS Serial Port modules and DIO Application to control the VENUS Digital I/O modules. The demo programs are organized by folder. Each folder contains: Each folder contains :
- The C source code
- A ready-to-run executable file

To rebuild these programs, the static library file **libvenusgpio_01.00.000.a** and **libvenusdio_01.01.000.a** must reside in the path specified by the makefile.

These demo programs may be freely copied, edited, and reused to develop your own applications for the VENUS Serial Port and DIO modules.

Simple instructions for using these demo programs

1. To set up the board, refer to the board's hardware user manual available on the product's web page at the following URL : <http://www.diamondsystems.com/products/venus>
2. Install these serial mode selection and DIO applications by copying them to the desired location in the mass storage device of the system containing your VENUS board.
3. Run the desired serial port mode selection and DIO demo application.
4. For more detailed instructions, refer to the VENUS Serial Port mode selection and DIO Application manual included in the Application package.

List of VENUS Demo programs included in this release

Program name	Description
VenusSerialportConfig	Configures serial ports mode as RS232,RS422 and RS485 and port number can perform external loopback
VENUSDIOFunction	Configures DIO ports as input or output, reads bytes or bits from ports, and can perform external loopback

Reference list of VENUS Serial Port mode selection and DIO demo Application functions and associated demo programs

This list is intended to provide a handy reference to help you quickly find a demo program that shows a typical use of an application function for VENUS.

Library function	Demo program
VenusGPIOInitBoard	Initialize the GPIO pins
VenusGPIOFreeBoard	Un-export the GPIO pins
VenusSerialportConfig	Configures serial ports

Library function	Demo program
VenusDIOInitBoard	Initialize the DIO driver handle
VenusDIOFreeBoard	Exit the driver handle
VenusDIOConfig	VENUSDIOFunction
VenusDIOOutputByte	VENUSDIOFunction
VenusDIOInputByte	VENUSDIOFunction
VenusDIOOutputBit	VENUSDIOFunction
VenusDIOInputBit	VENUSDIOFunction

For more complete descriptions of how to use each application function, see the VENUS Serial Port mode selection and DIO Linux Demo application User Manual included in the main Demo Application package.

For technical support please contact Diamond Systems:

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