

## FEATURES

- 21x8 led matrix (In Order to meet the standard character size of 5x7)
- Female 7x2 headers, female 10x2 headers, female 20x2 headers that snaps on to Altera Santa Cruz Headers.
- ULN20003A- High voltage-High current Darlington array.



## APPLICATION SOFTWARE

### Simple Application

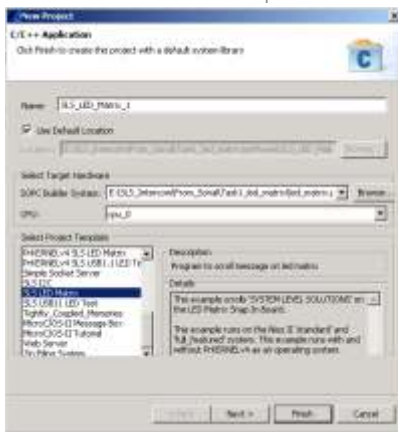
This software uses the Timer Interrupt to scroll messages on Snap on board.

#### Peripherals used:

- UART or JTAG UART
- LED Matrix Snap On

#### Requirements:

- Nios II (Standard, Full Featured, Fast) or Cyclone development boards.



### OS Based Application

The software runs on PrKERNELv4 RTOS and uses the timer interrupt to scroll messages on Snap on board.

#### Peripherals used:

- UART or JTAG UART
- LED Matrix Snap On

#### Requirements:

- Nios II (Standard, Full Featured) or Cyclone development boards.
- PrKERNELv4 RTOS, Periodic System Timer



## APPLICATIONS

1. LED patterns display: Scrolling or Stationary
2. Makes available 168 user definable output LEDs for on-board design testing and debugging on any ALTERA development board with Santa Cruz headers.