

```

to_gray: process (gsr, vclk)
begin
if (gsr = '1') then
if (not gray_in_cnt_gray<left downto 0) <= (others => '0')
and rising_edge(vclk) then
in_cnt_gray(in_cnt_gray<left) <= in_cnt_in<left>;
for i in 0 to ADDR_WIDTH - 1 loop
in_cnt_gray(ADDR_WIDTH - 1 - i) <= in_cnt_in(ADDR_WIDTH - 2 - i);
end loop;
end if;
end if;
end process;

begin
if (gsr = '1') then
fifo_elem_cnt <= (others => '0');
elsif rising_edge(mclk) then
process (gsr, mclk)
begin
if (gsr = '1') then
fifo_elem_cnt <= (oth

```

## logiCRAFT2

### Multimedia and Infotainment Evaluation/Development Platform

The logiCRAFT2 is Xilinx Spartan™-3 based platform capable of driving up to three displays, the logiCRAFT2 platform can simultaneously display different video streams on each screen. This capability is enabled by the gate-density, logic performance and high bandwidth provided by the Xilinx Spartan-3 FPGA family and the flexibility of Xylon logicBRICKS™ and Xilinx LogiCORE™ IP cores.

The platform supports a wide variety of video input and output standards including LVDS, CMOS, RGB digital and analogue, COG and CVBS. With a number of onboard PHYs, the logiCRAFT2 provides an ideal platform for evaluating the latest communications and telematics IP cores.

In order to allow an easy and quick evaluation of Xylon demo designs and development of the custom projects, the logiCRAFT2 fully supports a highly sophisticated Xilinx Embedded Development Kit (EDK) development flow.

#### TARGETED MARKETS

- Automotive
- Consumer
- Medical
- Industrial
- Military
- Aerospace

#### KEY FEATURES

- Xilinx XC3S1500-5FG676 device
- 128MB DDR SDRAM accessible by FPGA
- 8MB NOR Flash accessible by FPGA
- Video output block supporting up to 3 displays:
  - VGA DACs
  - DVI transmitters
  - LVDS transmitters
  - Backlight/Contrast adjustment
  - Driver/power supply for one COG display
  - SW programmable PLL display clock
- Video input block supporting 2 video inputs:
  - Composite video decoders
  - VGA ADCs
  - DVI receivers
  - LVDS receivers
- Support for versatile networking protocols:
  - MOST
  - CAN
  - LIN
  - USB
  - IDB1394
  - RS232
  - Ethernet
- Audio Input/Output block:
  - Audio Codec (ADC/DAC) for 4 stereo channels
  - Audio multiplexers for 4 stereo inputs
  - 2 IR broadcast stereo outputs
- IR remote controller receiver
- Two touch-screen controllers
- Expansion connectors and free FPGA IOs
- Auxiliary push buttons and DIP switch
- JTAG programming connector
- Single +12VDC power supply



MicroBlaze™ based EDK demo including evaluation logicBRICKS™ IPs  
SW demo application (C source) including drivers for logicBRICKS™ IPs

Design loader application  
Full platform schematics  
Documentation

#### PLATFORM DELIVERABLES

[www.logicbricks.com](http://www.logicbricks.com)

Xylon Headquarters	Xylon Germany	Xylon Japan
<b>XYLON d.o.o.</b> Fallerovo šetalište 22 10 000 Zagreb Croatia - Europe	Uhlandstr. 19 D-49525 Lengerich/Westf. Germany - Europe	3-7-6 Sin-Chiba Chuo-ku Chiba-shi Chiba-ken 260-0031 Japan
<b>tel:</b> +385-1-368-0026 <b>fax:</b> +385-1-365-5167	<b>tel:</b> +49-5481-327-937 <b>fax:</b> +49-5481-327-938	<b>tel:</b> +81-43-203-0009 <b>fax:</b> +81-43-203-0039
<b>E-mail:</b> <a href="mailto:info@logicBRICKS.com">info@logicBRICKS.com</a>	<b>E-mail:</b> <a href="mailto:info@logicBRICKS.de">info@logicBRICKS.de</a>	<b>E-mail:</b> <a href="mailto:info@logicBRICKS.jp">info@logicBRICKS.jp</a>