

# IP Core Generator: Bus Ripper



## Features

- Accessible from the Macro Generator Dialog and HDLPlanner™ – Included in IDS for FPGA Devices and System Designer™ for AT94K FPSLIC™ Devices
- Variable Width of Input Bus
- Used for Schematic Designs Only

## Bus Ripper

The Bus Ripper generator allows the user to produce variable-width “soft” buffers for re-naming buses within a design. When the design is imported into IDS, the mapping tools will identify the bus ripper macro as redundant logic and remove it from the netlist. The bus rippers are a fast and convenient method of re-labeling buses in a design without consuming unnecessary logic resources in the final implementation.

Note: Ensure that Mapping is enabled when importing a circuit containing bus ripper macros, to prevent extra logic from being added to the design. From the **Options** menu, select **Options** and then **Mapping**. The **Mapping Enabled** option should be checked.

## Parameters

Parameter	Value	Explanation
Width	Integer	Width of input bus

## Pins

Type	Name	Option	Explanation
In	INPUT[Width - 1:0]	No	Input bus
In	OUTPUT[Width - 1:0]	No	Output bus

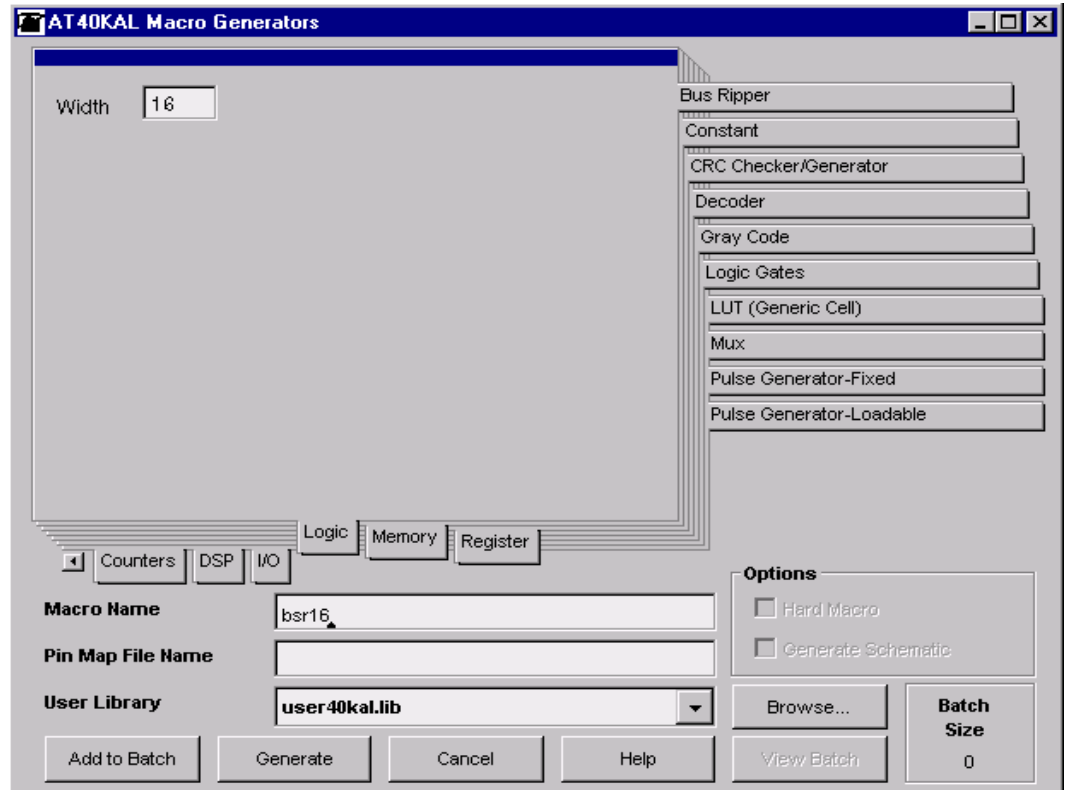
Figure 1 shows an example of the bsr16 macro options.

Programmable  
SLI  
AT40K  
AT40KAL  
AT94K

Application  
Note



Figure 1. Bus Ripper Generator





## Atmel Headquarters

### *Corporate Headquarters*

2325 Orchard Parkway  
San Jose, CA 95131  
TEL 1(408) 441-0311  
FAX 1(408) 487-2600

### *Europe*

Atmel SarL  
Route des Arsenaux 41  
Casa Postale 80  
CH-1705 Fribourg  
Switzerland  
TEL (41) 26-426-5555  
FAX (41) 26-426-5500

### *Asia*

Atmel Asia, Ltd.  
Room 1219  
Chinachem Golden Plaza  
77 Mody Road Tsimhatsui  
East Kowloon  
Hong Kong  
TEL (852) 2721-9778  
FAX (852) 2722-1369

### *Japan*

Atmel Japan K.K.  
9F, Tonetsu Shinkawa Bldg.  
1-24-8 Shinkawa  
Chuo-ku, Tokyo 104-0033  
Japan  
TEL (81) 3-3523-3551  
FAX (81) 3-3523-7581

## Atmel Operations

### *Memory*

Atmel Corporate  
2325 Orchard Parkway  
San Jose, CA 95131  
TEL 1(408) 436-4270  
FAX 1(408) 436-4314

### *Microcontrollers*

Atmel Corporate  
2325 Orchard Parkway  
San Jose, CA 95131  
TEL 1(408) 436-4270  
FAX 1(408) 436-4314

### *Atmel Nantes*

La Chantrerie  
BP 70602  
44306 Nantes Cedex 3, France  
TEL (33) 2-40-18-18-18  
FAX (33) 2-40-18-19-60

### *ASIC/ASSP/Smart Cards*

Atmel Rousset  
Zone Industrielle  
13106 Rousset Cedex, France  
TEL (33) 4-42-53-60-00  
FAX (33) 4-42-53-60-01

Atmel Colorado Springs  
1150 East Cheyenne Mtn. Blvd.  
Colorado Springs, CO 80906  
TEL 1(719) 576-3300  
FAX 1(719) 540-1759

Atmel Smart Card ICs  
Scottish Enterprise Technology Park  
Maxwell Building  
East Kilbride G75 0QR, Scotland  
TEL (44) 1355-803-000  
FAX (44) 1355-242-743

### *RF/Automotive*

Atmel Heilbronn  
Theresienstrasse 2  
Postfach 3535  
74025 Heilbronn, Germany  
TEL (49) 71-31-67-0  
FAX (49) 71-31-67-2340

Atmel Colorado Springs  
1150 East Cheyenne Mtn. Blvd.  
Colorado Springs, CO 80906  
TEL 1(719) 576-3300  
FAX 1(719) 540-1759

### *Biometrics/Imaging/Hi-Rel MPU/ High Speed Converters/RF Datacom*

Atmel Grenoble  
Avenue de Rochepleine  
BP 123  
38521 Saint-Egreve Cedex, France  
TEL (33) 4-76-58-30-00  
FAX (33) 4-76-58-34-80

---

**Atmel Programmable SLI Hotline**  
(408) 436-4119

**Atmel Programmable SLI e-mail**  
fpga@atmel.com – fpslic@atmel.com

**FAQ**  
Available on web site

**e-mail**  
literature@atmel.com

**Web Site**  
<http://www.atmel.com>

### © Atmel Corporation 2001.

Atmel Corporation makes no warranty for the use of its products, other than those expressly contained in the Company's standard warranty which is detailed in Atmel's Terms and Conditions located on the Company's web site. The Company assumes no responsibility for any errors which may appear in this document, reserves the right to change devices or specifications detailed herein at any time without notice, and does not make any commitment to update the information contained herein. No licenses to patents or other intellectual property of Atmel are granted by the Company in connection with the sale of Atmel products, expressly or by implication. Atmel's products are not authorized for use as critical components in life support devices or systems.

Atmel® is the registered trademark of Atmel. FPSLIC™, HDLPlanner™ and System Designer™ are the trademarks of Atmel.

Other terms and product names may be the trademarks of others.



Printed on recycled paper.