



# Third-Party Programmer Support for the Jam Programming & Test Language

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## Introduction

As time-to-market pressures increase, design engineers require advanced system-level products to ensure problem-free development and manufacturing. Programmable logic devices (PLDs) with in-system programmability (ISP) can help accelerate development time, simplify the manufacturing flow, lower inventory costs, and improve printed circuit board (PCB) testing capabilities.

The Jam™ programming and test language is compatible with PLDs that offer ISP, and is a major step forward in providing a software-level standard for in-system programming. This document summarizes Advin System's third-party programming support hardware for the Jam language.

Other third-party programming hardware vendors also support the Jam language (see below):

- Xeltek Corporation
- System General
- Hi-Lo Research Systems

For the most up-to-date information on all third-party programming vendors, go to the Jam web site at <http://www.jamisp.com>.

## Advin Systems, Inc.

Advin Systems specializes in providing PLD designers with early support for newly released PLDs. Advin Systems provides the PILOT-JVP universal programmer, which supports the Jam language and offers the following features:

- Supports Jam Files (.jam) created by the MAX+PLUS® II software
- Instant device support as soon as devices are available from the manufacturer
- Programming core software provided by Altera and other PLD manufacturers
- Windows 95 user interface
- True low-voltage support
- Free lifetime software updates via bulletin board service (BBS) and the world-wide web
- Industrial-quality programmer

The PILOT-JVP programmer includes software drivers for Windows 95, and a core Jam Player that interprets Jam programming files produced by PLD vendors.

Because Jam Files embed all necessary programming algorithm instructions, the PILOT-JVP programmer can program PLDs according to the PLD vendor's specification, without any chance of error.

The Jam Player software is a built-in feature residing in the PILOT-JVP programmer. The PLD vendor's tools (such as Altera MAX+PLUS II software) will incorporate all new programming algorithms into the Jam Files automatically. Because new programming algorithms are not required for each new device, the PILOT-JVP programmer can provide instant support for new devices.

In addition to full support for Altera PLDs that use the IEEE 1149.1 JTAG interface, the PILOT-JVP programmer will support other vendors' PLDs that can be programmed with Jam Files.

The PILOT-JVP programmer currently supports Altera MAX<sup>®</sup> 9000 and MAX 7000S devices in plastic J-lead chip carrier (PLCC), quad flat pack (QFP), pin-grid array (PGA), and ball-grid array (BGA) packages. Advin Systems will provide support for other devices as they become available.



For more information on the Jam language, see *PIB 27 (Jam Programming & Test Language Overview)* or the *Jam Programming and Test Language Specification* in this handbook, or go to the Jam web site at <http://www.jamisp.com>.

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