**Feature Spec** 

Digi ESP<sup>™</sup>

Integrated Development Environment for Digi Product Solutions

## **Overview**

Digi ESP is an easy-to-use and powerful Integrated Development Environment (IDE) optimized for professional software development on a wide range of Digi product platforms.

Combining the complete integration of Digi hardware, software and services, Digi ESP streamlines the overall application design process, whether you are developing embedded software for Digi Embedded Linux and NET+OS®, or customizing applicationspecific functionality using the built-in Python scripting and iDigi® Dia capabilities of Digi products.

# About Digi ESP

Built on the open Eclipse<sup>™</sup> framework, Digi ESP offers an intelligent source code editor, compiler/code generation, visual source code debugging, hardware and software debug support, build management, CVS version control, and code deployment tools for local and remote targets.

Features like the intelligent editor coding aids for C/C++ and Python/iDigi Dia with syntax highlighting, auto-indent, code completion assistance, context-sensitive API help, and on-the-fly template insertion make software development easier and faster than ever before.

A complete set of Digi-specific extensions tailored to NET+OS, Digi Embedded Linux, and Python/iDigi Dia development ensures an unparalleled development experience with completely seamless Digi product integration.

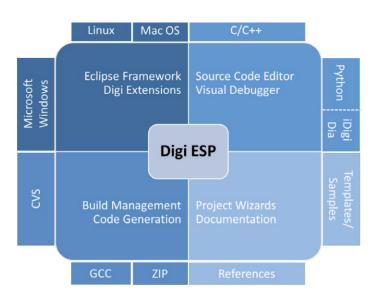
Digi ESP is available for the following development platforms:

• Digi ESP for NET+OS:

Embedded C/C++ application development on Microsoft Windows systems for Digi products running NET+OS

- Digi ESP for Digi Embedded Linux: Embedded C/C++ application development on Linux systems for Digi products running Digi Embedded Linux
- Digi ESP for Python:

Python/iDigi Dia development on Microsoft Windows and Mac OS X systems for Digi products with Python support



### Features/Benefits

Complete IDE with full integration of Digi software, hardware and services

Built on open Eclipse framework

Integrated reference information, tutorials and user documentation

Included in all embedded Digi JumpStart Kits® and available for download for other Digi products

- Simplified and highly accelerated development and deployment
- Feature-rich and future-proof; common look-and-feel minimizes effort required to learn new development tools
- Easy and direct access to information saves time and effort
- No need to assemble and integrate development environment – application development can begin immediately right out of the box



### www.digiembedded.com

#### General

- Based on open Eclipse framework
- Online updates through integrated
- Digi Package Manager<sup>1</sup>
  - Documentation
  - Software updates
- Digi-specific help, documentation, and interactive tutorials
- General iDigi<sup>®</sup> support iDigi platform account creation
  - Device discovery and registration
  - Please visit www.idigi.com for detailed
  - information about the iDigi M2M platform.

### Digi ESP for Digi Embedded Linux

- Source code editor •
  - C/C++ source code editor
  - Color-coded syntax highlighting
  - Intelligent code assist
  - Auto-indent and bracket-match
  - Proactive code completion assistance
  - On-the-fly code template insertion
  - Context-sensitive API help (hover assist and full help)
  - C/C++ search (constructs, declarations, definitions, references, etc.)
- Compiler
- GNU C/C++ integration (GCC)
- Debugging
  - Visual source code debugger
  - One-click debug launch
  - Breakpoints and watchpoints
  - Data inspection/modification
  - Memory, registers, variables and signals Disassembler mixed code view
  - Kernel debugging capabilities
- Project and build management
- Linux Project Wizards
- Integrated project file navigator
- Managed and standard make files
- CVS version control system support
- Nokia Qt Designer plug-in
  - **Qt Development Perspective** 
    - Graphical editor for resource files (.grc), project files (.pro), and applications (.ui)
  - Drag-and-drop widget box view
  - Qt Property Editor
  - Auto-generated Qt makefiles for Qt apps
  - Remote launch of Qt applications
- Qt application samples
- Target monitor extension
- File system view, flash update, remote console Terminal view
- Serial, telnet, SSH
- Bootable Linux system DVD w/Digi ESP ("LiveDVD")
- Included in all Digi JumpStart Kits for Digi Embedded Linux
- <sup>1</sup> Internet connection required



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### Digi ESP for NET+OS

- Source code editor
- C/C++ source code editor
- Color-coded syntax highlighting
- Intelligent code assist
- Auto-indent and bracket-match
- Proactive code completion assistance

Python interpreter

Python 2.4 and 2.6 support

Python and iDigi Dia project wizards

CVS version control system support

Included in Digi JumpStart Kits for iDigi and

available for download at www.digi.com/esp

Packaging (ZIP) for Python app deployment

Integrated project file navigator

Project and build management

Project build and rebuild

Device application launch

Project package export

iDigi Dia channel explorer

Device file explorer

Serial, telnet, SSH

Supported Digi Products

Digi Connect® ME / Wi-ME

Digi Connect ME® 9210 Digi Connect® EM / Wi-EM

ConnectCore<sup>™</sup> 9P 9360

Digi ESP for Digi Embedded Linux

Digi Connect ME<sup>®</sup> 9210

ConnectCore<sup>™</sup> 9P 9360

Digi ESP for Python

**Operating Systems** 

Digi ESP for NET+OS

Digi ESP for Python

Microsoft Windows XP

**Microsoft Windows 7** 

Microsoft Windows Vista

Digi ESP for Digi Embedded Linux

Linux (included on DVD)

Microsoft Windows XP

**Microsoft Windows 7** 

provided for 32-bit platforms only.

Digi

Microsoft Windows Vista

Mac OS 10.6 (or greater)

Microsoft Windows support is currently

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ConnectCore™ 3G

ConnectCore<sup>™</sup> Wi-9P 9215

ConnectCore<sup>™</sup> 3G

ConnectCore<sup>™</sup> 9P / Wi-9P 9215

ConnectCore<sup>™</sup> 9P / Wi-9P 9215

ConnectCore<sup>™</sup> 9M / Wi-9M 2443

ConnectCore™ i.MX51 / Wi-i.MX51

ConnectPort<sup>™</sup> X2 / X3 / X4 / X5 / X8

Local and remote

Remote device services

Device reboot

Digi ESP for NET+OS

Terminal view

- On-the-fly code template insertion
- Context-sensitive API help (hover assist and full help)
- C/C++ search (constructs, declarations, definitions, references, etc.)
- Compiler
- GNU C/C++ integration (GCC)
- Debugging
  - Visual source code debugger One-click debug launch

  - Breakpoints and watchpoints Data inspection/modification
  - Memory, registers, variables and signals
  - Disassembler mixed code view Project and build management
  - NET+OS project wizards
  - Integrated project file navigator
  - Managed and standard make files
  - CVS version control system support
- Supported debuggers
- Digi JTAG Link, EPI MAJIC, software (gdbserver) Project builder for ready-to-use application
- templates
- CPU load monitor, web server (w/configuration pages), secure web server, FTP server/client, Telnet/serial CLI, SSL, SNTP, SMTP
- NET+OS tools and utilities
- NET+OS Flash programmer
- NET+OS MIB compiler
- NET+OS builder integration
- Terminal view
- Serial, telnet, SSH
- Included in all Digi JumpStart Kits for NET+OS

### Digi ESP for Python

- Source code editor
  - Python source code editor
  - Color-coded syntax highlighting
  - Intelligent code assist
  - Auto-indent and bracket-match
  - Proactive code completion assistance
  - On-the-fly code template insertion
  - Context-sensitive API help (hover assist and full help)
- Visual smart editor for iDigi Dia
- Source code editor with color-coded syntax highlighting, syntax error checking and auto-indent
- iDigi Dia element definition
- Devices, loggers, presentations and services iDigi Dia element configuration
- Error detection (patters, ranges, etc.)
- Debugging

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Visual source code debugger One-click debug launch Conditional breakpoints

> Data inspection/modification - Variables, expressions, etc. Multi-threading debug

Remote debugging (device)