



Contacts: Nancy B. Green
The William Baldwin Group
nbgreen@william-baldwin.com
+1 650 856 6192

Peter Riachi
HI-TECH Software
priachi@htsoft.com
+61 7 3722 7777

FOR RELEASE APRIL 2, 2007

**NEW PICC-18™ PRO COMPILER WITH OMNISCIENT CODE GENERATION™
TECHNOLOGY DELIVERS 50% DENSER PIC18 CODE THAN IAR'S EW18**

Booth 937, Embedded Systems Conference, San Jose, CA, April 2, 2007. . . HI-TECH Software, the leading third-party vendor of compilers for Microchip MCUs, today announced its PICC-18 PRO compiler for Microchip's PIC18 microcontrollers. PICC-18 PRO is the first compiler to integrate HI-TECH's new Omniscent Code Generation (OCG), also announced today. It achieves up to 13.4% better code density than HI-TECH's PICC-18 STD compiler and up to 50% better code density than IAR's compiler.

Determines The Memory Space For Each Pointer for Optimal Memory Usage OCG algorithms use each and every instance of a variable having its address taken, plus each instance of an assignment of a pointer value to a pointer (either directly, via function return, function parameter passing, or indirectly via another pointer) and builds a data reference graph, known as a Pointer Reference Graph. When complete the pointer reference graph identifies the set of *all* objects that can possibly be referenced by each pointer. This information is used to determine which memory space each pointer will be required to access. Any conflicting declarations of the same object from different modules can be detected and an informative error message issued to the user. Any variables never referenced can be deleted.

Optimized C Library Functions Increase Code Density The OCG technology in PICC-18 PRO automatically generates customized code, based on the use of each function in the program. For

example, the C library functions for formatting text strings or output, `sprintf()` and `printf()`, can occupy a 5 KBytes or more. PICC-18 PRO's code generator analyzes the format strings supplied to these functions to determine the exact set of format specifiers and modifiers actually used by the program and creates the smallest customized version to meet program requirements. Simple string copying, for example, can be implemented in a version of `sprintf()` that takes only 20 or 30 bytes – 99% less code than a full-featured version, which substantially impacts the size of the overall program. For example, the PICC-18 PRO OCG-enabled compiler achieves 26% better code density than its pre-OCG parent, the PICC-18 STD compiler.

Denser Code, Better Performance Code compiled by PICC-18 PRO for the PIC18C242 with PICC-18 PRO, without library functions, is 24% smaller than code compiled with Microchip's own C18 compiler, and 20% smaller than code compiled using IAR's EW18 compiler. When library functions, such as `printf()` are included, HI-TECH's OCG compiler delivers 50% smaller code than IAR's EW18 and 40% smaller code than Microchip's C18 compilers.

Compatible with MPLAB® PICC-18 PRO integrates into Microchip's MPLAB integrated development environment (IDE), as well as most 3rd-party development tools.

PIC-18 PRO runs on multiple platforms including Windows (2000, XP) Linux and Mac OS X.

HI-TECH Software also provides its own Eclipse-based IDE, HI-TIDE™ 3, including full project management, a flexible editor and a fast, accurate simulator.

Source code and runtime modules included. PICC-18 PRO is available with full source code to all library routines and run-time start-up modules, allowing the programmer to customize the run-time environment for a particular hardware system. There are no restrictions or limitations on use of executable library code

Demo download and an extended evaluation period: A fully functional 45 day trial version of PICC-18 PRO can be downloaded, free of charge, at HI-TECH's website <http://www.htsoft.com>.

Price and availability. PICC-18 PRO is available now for US\$1,195.00 if purchased before 30 June, after which it will be US\$1,495. It includes, at no extra charge, HI-TECH Software's 12 month access to updates and technical support, as well as a 30 day money back guarantee. Multi-user, and educational user discounts are available.

About HI-TECH Software

HI-TECH Software is a world class developer of development tools for embedded systems, offering compilers, RTOS and an Eclipse based IDE (HI-TIDE) for 8-, 16-, and 32-bit microcontroller and DSP chip architectures. Its products support Microchip PICmicro[®] MCUs and DSPs, ARM, 8051, TI MSP430, HOLTEK, ARClite, XA, Z80, and PSoC[®] (late April '07) architectures to name a few. HI-TECH is the number one vendor of compilers for Microchip Technology's PIC[®] MCUs, with approximately 64% marketshare. Its customers include tens of thousands of embedded system developers including General Motors, Whirlpool, Qualcomm, and John Deere.

Founded by Clyde Stubbs, in 1984 in Brisbane, Australia, HI-TECH Software has an office in Gilroy, California, and an extensive network of distributors around the Globe.