

BeeProg4C (ord.no. 60-0065)

Extremely fast universal **USB** interfaced programmer.

Cost effective version of [BeeProg4](#) programmer (differences see below). If you need to program some of the mentioned devices, see [BeeProg4](#) programmer.



Short description:

- **139433 supported devices** from **473 manufacturers** by 4.13 version of SW (25. Jun. 2026)
- Programming speed 5MB/s for capable devices (4/2026) with outlook to be increased considerable
- 48-pins powerful pindriver for programming past, present and future devices
- ISP connector for **in-circuit programming**
- connection to PC: **USB 2.0** (up to 480 Mbit/s, high speed/full speed) and 1.1 compatible interface
- **USB 2.0** (high speed, full speed) and 1.1 compatible interface
- comfortable and easy to use control program, works with all versions of MS Windows from **Windows 10 to Windows 11** (32-bit and [64-bit*](#)) running at x86/x64 compatible PC
- unique quick reaction to customer's needs - software update can be ready within a day from request by [OnDemand software](#)
- [Multiprogramming](#) possible by attaching more programmers to one PC
- [made in Slovakia](#)
- [warranty - 3 years](#)
- approved by CE laboratory to meet [CE](#) requirements



Optional accessories:

- [Programming Adapters \(Socket Converters\)](#)
- [Optional accessories: Calibration test pod, Vacuum pen, ...](#)

Features

General

- **BeeProg4C** is USB-compatible, MS Windows (from Windows 10 to Windows 11, 32-bit and 64-bit) based Elnec universal programmers, built to meet the strong demand of the small manufacturing and developers community for the fast and reliable universal programmer.
- BeeProg4C programmer has hardware identical with the [BeeProg4](#) programmer, the differences are only in software. BeeProg4C has next limitations against [BeeProg4](#):
 - unsupported obsolete bipolar chips (PROMs and PLDs)
 - unsupported obsolete EPROMs with programming voltage 21V and above
 - unsupported obsolete 2708 EPROMs
 - unsupported obsolete microcontrollers MCS48 series
 - unsupported obsolete microcontrollers 8751/8752 with programming voltage 21V and above
 - unsupported some very obsolete chips and special implementations
- BeeProg4C programmer is 100% replacement of [BeeProg2C](#) programmer with improved hardware - better pindriver for low-voltage devices, higher programming speed and even more powerful programming core (FPGA) inside.
- Supports **all kinds** of types and silicon technologies of today and tomorrow **programmable devices** without family-specific module. You have freedom to choose the optimal device for your design. Using built-in in-circuit serial programming (**ISP**) connector, the programmer is able to program ISP capable chips in circuit.
- BeeProg4C isn't only a programmer, but also a **tester** of TTL/CMOS logic ICs and memories. Furthermore, it allows generation of user-definable **test pattern sequences**.
- Provides very competitive price coupled with excellent hardware design for reliable programming.
- **Extremely fast programming** due to high-speed FPGA driven hardware and execution of time-critical routines inside of the programmer. As a result, when used in manually-operated production, this one-socket-programmer in most cases waits for an operator.
- BeeProg4C interfaces with any IBM PC compatible personal computers, running MS Windows OS, through **USB (2.0 HighSpeed)**.

Hardware

- **FPGA based** totally reconfigurable 48 **powerful TTL pindrivers** provide H/L/pull_up/pull_down and read capability for each pin of socket. Advanced pindrivers incorporate **high-quality high-speed** circuitry to deliver signals without overshoot or ground bounce for all supported devices. Improved pin drivers drivers operate down to 1.8V so you'll be ready to program the full range of today's advanced low-voltage devices.
- The programmer performs device **insertion test** based on the check of proper signal path between the programmer and programmed device before it programs each device. In dependence on programming configuration it identifies missed or poor contact between programmed device and the ZIF socket of the programming adapter (or the programmer directly), missed or poor contact between the programming adapter and the programmer and it's also able to indicate wrong position of device in the ZIF socket of the programmer / the programming adapter (moved, rotated, backward oriented). These capabilities, supported by **overcurrent protection** and **signature-byte check** help prevent chip damage due to operator error.
- The selftest capability allow to run diagnostic part of software to thoroughly check the health of the programmer.
- Built-in **protection circuits** eliminate damage of programmer and/or programmed device due to environment or operator failure. All the inputs of the BeeProg4C programmer, including the ZIF socket, connection to PC and power supply input, are **protected against ESD** up to 15kV.
- When programming specification require, the (BeeProg4C) programmer performs programming **verification** at the **marginal level** of supply voltage, which, obviously, improves programming yield, and guarantees long data retention.
- Various **programming adapters** are available to handle device in PLCC, JLCC, SOIC, SDIP, SOP, PSOP, SSOP, TSOP, TSOPII, TSSOP, QFP, PQFP, TQFP, VQFP, QFN (MLF), SON, BGA, EBGA, FBGA, VFBGA, UBGA, FTBGA, LAP, CSP, SCSP, LQFP, MQFP, HVQFN, QLP, QIP and other packages.

Software

- Programmer is driven by an **easy-to-use** control program with pull-down menu, hot keys and on-line help. Selecting of device is performed by its class, by manufacturer or simply by typing a fragment of vendor name and/or part number.
- **Standard** device-related commands (read, blank check, program, verify, erase) are boosted by some **test functions** (insertion test, signature-byte check), and some **special functions** (autoincrement, production mode - start immediately after insertion of chip into socket).
- All known data formats are supported. Automatic file format detection and conversion during loading of file.
- The rich-featured **auto-increment function** enables one to assign individual serial numbers to each programmed device - or simply increments a serial number, or the function enables one to read serial numbers or any programmed device identification signatures from a file.
- The software also provide a many information about programmed device. As a special, the **drawings of all available packages** are provided. The software provide also **explanation of chip labelling** (the meaning of prefixes and suffixes at the chips) for each supported chip.

- The software provide a full information for ISP implementation: Description of ISP connector pins for currently selected chip, recommended target design around in-circuit programmed chip and other necessary information.
- The **remote control** feature allows to be PG4UW software flow controlled by other application – either using .BAT file commands or using DLL file. DLL file, examples (C/PAS/VBASIC/.NET) and manual are part of standard software delivery.
- **Jam files** of JEDEC standard JESD-71 are interpreted by **Jam Player**. Jam files are generated by design software which is provided by manufacturer of respective programmable device. Chips are programmed in-ZIF or through ISP connector (IEEE 1149.1 Joint Test Action Group (JTAG) interface).
- **VME files** are interpreted by VME Player. VME file is a compressed binary variation of SVF file and contains high-level IEEE 1149.1 bus operations. SVF files are interpreted by SVF Player. SVF file (Serial Vector Format) contains high-level IEEE 1149.1 bus operations. SVF files are generated by design software which is provided by manufacturer of respective programmable device. Chips are programmed in-ZIF or through ISP connector (IEEE 1149.1 Joint Test Action Group (JTAG) interface). VME files are generated by design software which is provided by manufacturer of respective programmable device. Chips are programmed in-ZIF or through ISP connector (IEEE 1149.1 Joint Test Action Group (JTAG) interface).
- Multiple devices are possible to program and test via JTAG chain: JTAG chain (ISP-Jam), JTAG chain (ISP-VME), JTAG chain (ISP-SVF) or JTAG chain (ISP-STP).
- Attaching of more BeeProg4C programmers to the same PC (through USB port) is achieved a [powerful multiprogramming system](#), which **support as many chips, as are supported by BeeProg4C programmer** and without obvious decreasing of **programming speed**. It is important to know, there is a concurrent multiprogramming - each programmer works independently and each programmer can program different chip, if necessary.
- After successful verification of programmed device, all data/settings for the project can be saved into the project file for future usage. Usage of project file is easiest way how to ensure the devices programmed in the future will be identical as the initially verified ones.
- And of course the project files are used in the production mode control software.
- To keep restricted availability of data/settings in project file, project file usage can be prohibited by password protection.
- As a prevention of operator mistake (or "mistake"), it can be set "protected mode" in project file, which disallow to use other operation with programmed device than set by creator of the project file - and it also disable to view data/settings of this project file.
- Advanced project file integrity check discover whatever data change in project file, due to media failure or tampering with the project file.