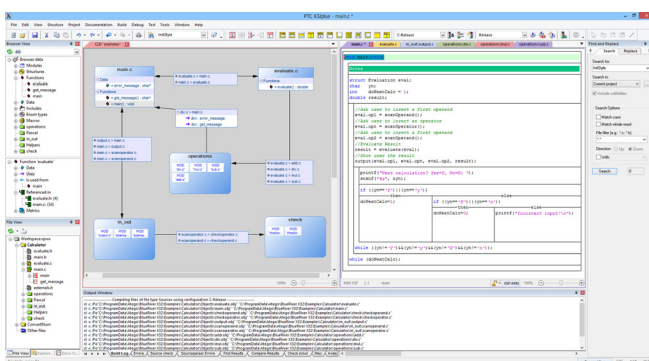# PTC X32plus™

All-in-one development environment to use across all phases of the development process

PTC X32plus allows developers to quickly gain an understanding of code structure and dependencies within the software project. Its structural representation enables developers to edit and manage the code effectively, adding value to projects and significantly improving the quality of software applications.

For cost effective development and maintenance of complex software, it is essential that designs are well documented. PTC X32plus enables developers to better interpret complex legacy code by portraying it graphically, making it much easier to understand, edit, test, and produce high quality documentation. For organizations with multiple site development teams or who outsource, PTC X32plus provides a consistent and accessible way for developers to share design information.

By displaying your code graphically, its structure and relationships are clearly communicated, enabling you to understand and interpret your code more quickly. The highly intuitive design of PTC X32plus means it can be adopted quickly by your developers with no training, instantly adding value to your projects.

PTC X32plus application environment

Key benefits

- **Automatically set keywords:** Enables programming errors (e.g., forgotten block ends or inadmissible nested blocks) to be avoided

- **Permanently collapse code sections:** Large and complex software projects can always be viewed clearly and managed effectively

- **Source browser:** For C or C++

- **Testing possibilities:** Improves software quality and reduces debugging time

    - Dynamic tests provide platform independent testing of units or of entire application

- **Automatically calculate metrics and connectivity of an external code checker:** Enables the localization of code that doesn't comply with best practices

- **Interface to version management systems:** Allows developers to check-out source files before implementing modifications and then to check-in after the new revision has been completed

- **Build interface:** Connection to any compiler and Linker

- **Debugger interface:** Enables the debugging of modifications directly in the structured code. Once connected, all usual debugger commands can be executed without switching the application

- **Integrated comparer and synchronizer:** Gives developers the ability to document or synchronize modifications between different software revisions

- **Generate diagrams automatically:** Allows developers to map the architecture of entire application over several graphical layers

Capabilities and specifications

- Built-in code editor:

  - Provides line-oriented editing as well as Nassi-Shneiderman charts, allowing code to be written directly in structured graphical views, making it clearer and easier to understand

  - Powerful search and replace functions

- Structogram and text-based code editors

- Clear presentation and rapid analysis of legacy code

- Code metrics and test support

- Built-in code editor:

  - Provides line-oriented editing as well as Nassi-Shneiderman charts, allowing code to be written directly in structured graphical views, making it clearer and easier to understand

- Browser and information system:

  - Provides comprehensive cross-referencing of code with corresponding data symbols

  - Information can be viewed in one of the project windows or accessed directly via the source code editor

  - Provides simple navigation to the respective reference positions

- Software project structure and data of the information system:

  - Generated by wizard and then mapped into multiple hierarchical views in the project window

  - Project is divided into various containers, which in turn contain a set of related items that represent folders, files, structures, functions, and other metadata

  - Information window provides details about the relationships between the individual elements

  - Project views provide fast and easy way of navigating to any defined position and data structure within the software project

- Build component:

  - Connects to preferred compiler and performs single module compilation as well as a complete build

  - Output window captures compiler's output and displays the information, giving the developer the ability to jump instantly to the location of any error(s)

  - Multiple compiler and make configurations are available

- **DOORS interface:** Reference marks to and from DOORS

- Software architecture in diagrams

- Documentation generator

- Comprehensive project documentation (including diagrams, cross-referencing information, metrics, and source code) can all be produced with minimal effort in a portable RTF format

Platform support and system requirements

- Available for use on Microsoft® Windows® systems

- Supported languages: C/C++, C#, Java, Pascal, PL/M, and Assembler

For more information, visit: ptc.com/developer-tools/X32Plus