PTC TeleUSE® for Linux, UNIX Systems

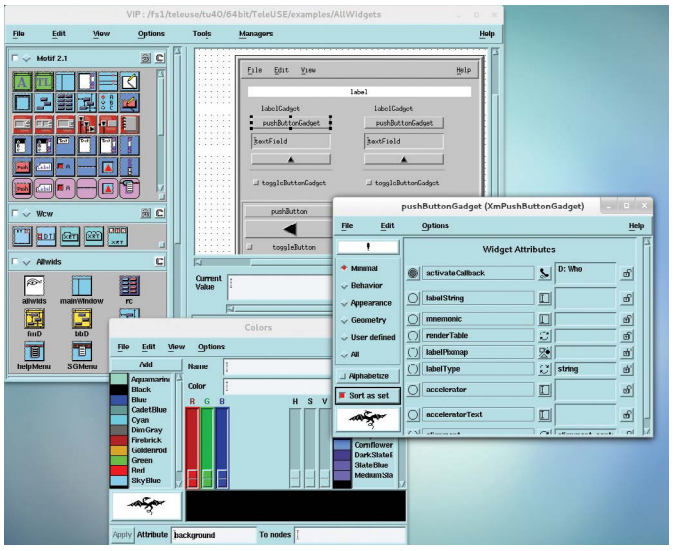
Delivering the power of reusable GUI objects

PTC TeleUSE is a powerful User Interface Management System (UIMS) that provides all the features tools developers need to interactively design and build fully object-oriented, Motif-based GUIs.

Today's software organizations are rapidly moving toward object-oriented programming techniques to develop complex applications.

The promised benefits?

- Portable, well-engineered systems, easily maintained and reusable across projects or across development platforms
- Shortened development cycles
- An overall increase in productivity—the ability to deliver more applications in less time, and with less effort



The Visual Interactive Presentation (VIP) tool—a powerful palette from which you can create GUI masterpieces.

Yet, few organizations are really obtaining these benefits. They're finding that most tools claiming to support object-oriented development often fall short of their claims by providing only "cut-and-paste" interface builders or generating implementations that are difficult to understand, maintain, and expand.

Key benefits

- World-class Graphical User Interface Management System development toolset
- Template-based Graphical User Interface composition support enhancing maintainability and expandability
- Automatic support for both interpreted and compiled Graphical User Interface implementations
- Common toolset across supported Linux and UNIX platforms
- Easily port Motif applications between platforms from a single source base
- Extensive widget libraries supply thousands of valuable resources for every application need

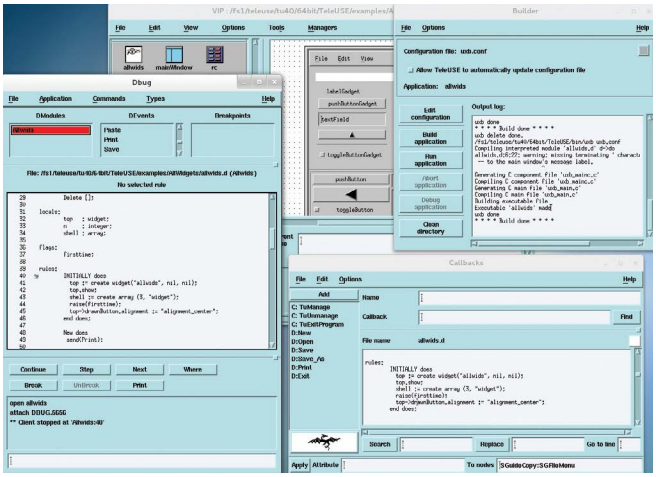
Capabilities and features

UI templates with multilevel encapsulation

PTC TeleUSE's Visual Interactive Presentation (VIP) tool allows one to easily design object-oriented widget templates—screen elements, screens or groups of screens that can be reused within or across applications. Developers needing a control panel, for example, can simply use an existing control panel template that inherits the widgets, resource values and methods defined in the template. Templates

can be viewed and edited either through the VIP tool or within the outline-oriented tree editor, which displays a template's components as nodes in a tree hierarchy.

Not only does the system support true inheritance across all instances of a template, but with PTC TeleUSE, a template's designer can use the object-oriented mechanism of encapsulation or data hiding, to selectively control which information in a template will be revealed to its users. Users can access and change particular template parameters, add certain nodes to a template or directly edit selected nodes—all without seeing any information that is not absolutely necessary to the operation at hand.



Effective development, debug, and build facilities speed your GUI creation process.

The benefits? Encapsulation gives the designer flexibility in providing for complex or irrelevant information, so they can quickly use even large templates in different application contexts. And features that are integral to the original template design are protected—and maintained through all instances of the template—to enforce changing corporate standards.

Rules-based, event-driven callback scripts

One of the most powerful features of PTC TeleUSE is its Dialog Manager, which allows one to specify, manage and control the dynamic or dialog code that connects the GUI to the application code.

This is done not through painstaking hand-coding of callbacks and events—although this option is available—but rather by writing simple, object-oriented callback scripts that define the rules to be used when given events occur. The scripts are high-level abstractions of the X and Motif library routines. Ordinarily written from scratch, these scripts fully insulate one from the nuances and complexities of the underlying window systems. They allow for accomplishing all the callbacks and event handling the application needs in a fraction of the time, and with a fraction of the instructions required by direct low-level coding.

"X Windows Smart" debugging

PTC TeleUSE's graphical, interactive Dialog Debugger traces callback code as it is associated with X events, offering a significant advantage over general-purpose C and C++ debuggers. And the Dialog Debugger can be run in concert with the development environments provided by the platform vendors to debug dialog and application code simultaneously.

C++ class generation

PTC TeleUSE generates true C++ classes that are directly mapped to one's design, and these classes then create and manage Motif user interface elements. With this capability, PTC TeleUSE's VIP tool becomes a visual C++ class designer, from which one can specify callbacks as member functions. This is, in effect, defining C++ objects that tightly integrate the presentation (data) and dialog (behavior) components of the application.

The results? Quick and easy instantiation and change of widget templates dynamically, at runtime. And, because PTC TeleUSE implements the key components of an application and its interface as C++ classes— using Motif widgets as primitives— one enjoys true tool support for optimal C++/Motif programming technique. Applications and their components are extremely easy to reuse, and the effort required for product maintenance is reduced dramatically.

Advanced application building

The PTC TeleUSE User Interface (UI) Builder offers over 100 options to customize the automated build process, and also provides hooks into third-party tools, such as configuration management systems, debuggers, testing tools and compilers. The UI Builder not only builds fully executable applications but also reusable software components that package visible portions of an interface with their associated behavior. One can create a repository of these components and use them repeatedly as fully operational building blocks for larger applications.

PTC TeleUSE Ada Integration

The PTC TeleUSE Ada Integration Package adds support that allows one to access application code written in the Ada programming language from graphical user interfaces developed using PTC TeleUSE. Full use of the complete PTC TeleUSE system for application development in Ada is provided. Ada compilation systems (such as the PTC ObjectAda® for UNIX, PTC ObjectAda for Linux, and PTC ObjectAda for Windows products) can be fully integrated with the PTC TeleUSE UI Builder to build applications incorporating Ada application code.

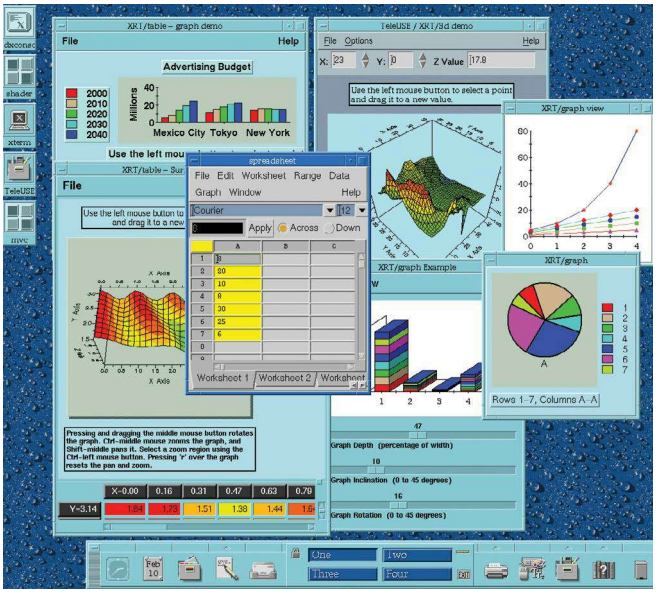
Ada interface packages for GUI components can be generated and instances of such objects can be created from within Ada application code. The PTC TeleUSE Ada Integration Package supports Ada tasking as well as object-oriented development with Ada 95, while maintaining full support for the Ada 83 language.

Support for multi-platform deployment

The PTC TeleUSE family of products offers support for multi-platform deployment to Linux and UNIX. When PTC TeleUSE for Linux and PTC TeleUSE for UNIX are used together, the time normally associated with migration of substantial applications from one platform to another is significantly shortened. If one previously hand- coded your Motif applications or used other UIMS products, one can use PTC TeleUSE products to leverage the robust, cross-platform and single-source application development support within PTC TeleUSE.

Extensive widget libraries

PTC TeleUSE also supports the latest version of the XRT Professional Developer's Suite (PDS), the leading Motif widget product in the industry. XRT/PDS, a separately purchased add-on to PTC TeleUSE, is available for cross-platform development and is the easiest way to add powerful 2D/3D graphs, robust data-entry and validation, tables and other intuitive interface elements to your applications.



XRT Motif widget libraries used with PTC TeleUSE

PTC: More than a supplier—a partner

At PTC, we are as diligent in supporting our customers as we are in developing world-class development solutions. In today's world of

distributed enterprises and global businesses, large applications are frequently developed and/or distributed by teams operating in different locations and possibly even on different continents. With our global presence and worldwide sales and support locations, we are there to serve our customers in a variety of ways including customer support, training, consulting and customization services. PTC solutions are designed to improve the quality of software applications and to improve programmer productivity for even the most challenging of applications, and our qualified support staff is looking forward to helping you achieve these goals.

PTC TeleUSE platform/OS availability

PTC TeleUSE for LINUX and UNIX:

- Solaris (SPARC 32-bit)
- Solaris (SPARC 64-bit)
- Solaris (Intel 32-bit)
- Solaris (Intel 64-bit)
- Linux (Intel 32-bit)
- Linux (Intel 64-bit)

For more information, visit: PTC.com/developer-tools/teleuse

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