Glossary

accelerator

1.A key or sequence of keys (typically a modifier key and some other key) that provides a shortcut, immediately accessing a program function.
2.* *See also* shortcut key.

action

1.In awk, lex, and yacc, a C language program fragment that defines what the program does when it recognizes input.
2.A procedure associated with a widget and invoked by the Xt event dispatcher when the widget receives an event of a given type. The widget's translation table associates event descriptions with actions.
3.A field in an EVS Event Controller that tells EVS to transmit, discard, or log the notification.
4.An operation requested by activating an element.

activation

1.Invocation of a component's primary action. For example, the user activates a PushButton by pressing BSelect on the PushButton.
2.The process of initiating the activity associated with a choice.

anchor

A position in a collection of selectable objects that marks one endpoint of an extended selection range.

atom

An identifier that is unique to the display and is associated with a given name. Common uses are to identify properties, types, and selections.

bitmap

A pixmap with a depth of one bit.

callback

1.DFS: A procedure that is registered with a token to be called automatically if the token is revoked. The act of revoking a token is also referred to as a callback.
2.An application−defined procedure that a widget invokes at some specified time. Often the widget invokes a callback from an action routine when the widget receives an event of a given type. Widgets that invoke callbacks have resources whose value is a list of callback procedures.

character set

1.A group of characters used for a specific reason; for example, the set of characters a printer can print or a keyboard can support.
2.A set of characters that, either individually or in combination, represents meaningful words in a language.

class

1.A category into which objects are placed on the basis of both their purpose and their internal structure. *See also* object class, OM class.
2.A group of elements all of the same type. A resource class represents a group of resources with different names. A widget class represents the procedures and data structures shared by all widgets of that class.
3.In object−oriented programming, specifies the name, structure, and components of objects. *See also* object, object −oriented programming, subclass.
4.Pertains to the I/O characteristics of a device. Devices are classified as 2*block2* or 2*character2*.2 2

client

1.CDS: Any application that interacts with a CDS server through the CDS clerk.
2.DTS: Any application that interacts with a DTS server through the DTS clerk.
3.RPC: The party that initiates a remote procedure call. Some applications act as both an RPC client and an RPC server. *See also* server.
4.DFS: A consumer of resources or services. *See also* server.
5.GDS: The client consists of an application that links the DUA library, the C−stub that handles the connection over the communications network for accessing a remote server, and the DUA cache.
6.A program written specifically for use with the X Window System. Clients create their own windows and know how to resize themselves.

7.The portion of a distributed program that issues requests for service to a server. The client's address space is separate from the server's address space; the two programs may reside on separate machines. *See also* server.

clipping

The restriction of output to a particular area of the screen by a given boundary. For example, windows are clipped by their parents.

code set

1.A collection of characters with assigned code values. For example, ASCII contains a specified group of characters; each character has an assigned value in the set.
2.The set of binary values needed to represent all the characters in a language.

colormap

An association between pixel values and colors. Each color is represented by a triple of red, green, and blue values that result in a particular color on a particular screen. Each window has an associated colormap that determines what color is used to display each pixel.

composite

One of a group of widgets that can have child widgets and can manage their children's geometry.

cursor

1.A movable symbol (such as an underline) on a display that indicates to the user where the next typed character will be placed or where the next action will be directed.
2.A marker that indicates the current data access location within a file.
3.A graphical image, usually a pipe (|) or block, that shows the location where text will appear on the screen when keys on the keyboard are pressed or where a selection can be made.
4.A visible cue that indicates where the user's interaction with the keyboard will be performed.

destination

The location at which transfer actions place data.

dialog

1.A widget that provides a means of communicating between the user and the application. A dialog is a popup that usually asks a question or presents some information to the user. A dialog can be modal, suspending the application until the user provides a response, or modeless, allowing the user to interact with the application during the dialog.
2.In an interactive system, a series of related inquiries and responses similar to a conversation between two people.
3.A specialized interaction with the user that occurs in a secondary window.

display

An abstraction that represents the input and output devices controlled by a single server. Usually a display consists of a keyboard, a pointing device, and one or more screens.

drag and drop

1.A transfer mechanism where data is dragged from a source to a drop site using mouse motion.
2.A user interaction in which a user drags source elements to a target element on which they are dropped.

drag icon

A graphic that is generated using pixmaps and is moved during a drag operation. The drag icon is composed of a source pixmap, a state cursor, and an operation cursor.

drag initiator

The client within whose window the user starts a drag transaction. *See also* drag source.

drag source

The object whose graphical representation is being dragged and whose data the user wishes to transfer.

drawable

An entity that can be the source or destination for a graphics operation. Both windows and pixmaps are drawables.

drop site

An area of the screen on which the user can drop a drag icon.

event

1. The enqueueing or dequeueing of an element.
2. An occurrence of significance to a task.
3. Information generated either asynchronously from a device or as the side−effect of a client request. Events are grouped into types and are not sent to a client by the server unless the client has issued a specific request for information of that type. Events are usually reported relative to a window.
4. A synchronization primitive for asynchronous notification of a change of state.
5. An occurrence, or happening, that is significant to an application. Events are typically asynchronous, in that they do not happen as a result of an action taken by the user. Also, the information returned to the user for an event.
6. In XTI, events are asynchronous and the transport user acts on the occurrences.
7. A means by which the server notifies clients of changes of state. An event may be a side effect of a client request, or it may have a completely asynchronous cause, such as the user's pressing a key or moving the pointer. In addition, a client may send an event, via the server, to another client.
8. In EVS, an occurence or condition that is significant to an application.

event handler

A procedure called by the Xt event dispatcher when a widget receives an event of a given type. Event handlers provide input processing at a lower level than callbacks or action routines.

event loop

A program loop in which the application receives an event, handles the event, and then waits for the next event. An event loop usually does not end until the user terminates the application. Xt provides an event−dispatching loop suitable for most applications.

export target

A type of object that a drag source can process.

expose method

A method that regenerates the content of a window.

focus

1. A state of the system that indicates which component receives keyboard events. A component is said to have the focus if keyboard events are sent to that component.
2. * *See also* keyboard focus.
3. The place to which keyboard input is directed.

font

A collection of glyphs and associated metrics usually used to display text.

gadget

An object that is like a primitive widget in most respects except that it has no associated window or translations. A gadget depends on a manager parent for its colors and for input dispatching.

GC

See graphics context.

geometry

The elements of a widget's layout, including its size, location, and stacking order.

geometry management

The process by which the user, parent widgets, and child widgets negotiate the actual sizes and locations of the widgets in an application. In general, a child widget can ask its parent to change its geometry but cannot make any changes on its own. A parent can grant or reject a request from its child and can force changes on the child at other times.

grab

A client's assertion of exclusive use of a keyboard key, the keyboard, a pointer button, the pointer, or the server. Applications usually do not use explicit grabs, but toolkits and window managers often use them to implement such features as menus and accelerators.

graphics context (GC)

A collection of attributes that determine how any given graphics operation affects a drawable. Each graphics operation on a drawable is executed using a given graphics context specified by the client. Some attributes of a graphics context are the foreground pixel, background pixel, line width, and clipping region.

hotspot

1.The location in a cursor that corresponds to the coordinates of the pointer position.
2.The area of a graphical image used as a pointer or cursor that is defined as the point of the pointer or cursor.

I18N

See internationalization.

import target

A type of object that a drop site can process.

input context

The mechanism used to provide the state information flow between an application and the input method.

input focus

1.* *See also* keyboard focus.
2.* *See also* focus.

input method

A layer of mapping between the keyboard keys (or combination of keys) that the user types and the text data that is passed to the application.

insertion cursor

1.The graphical symbol that provides the visual cue to the location of the insertion point.
2.The graphical symbol that provides the visual cue to the location of the insertion point in a Text component.

internationalization (I18N)

The process of generalizing programs or systems so that they can handle a variety of languages, character sets, and national customs.

keyboard focus

1.Indicates the window or component within a window that receives keyboard input. It is sometimes called the input focus.
2.A state of the system that indicates which component receives keyboard events. A component is said to have the focus if keyboard events are sent to that component.

keyboard traversal

The set of actions, usually invoked from the keyboard, that cause focus to move from one component to another within an application or between applications.

localization

The process of providing language−specific or country−specific information and support for programs.

manage

To place the geometry of a child widget under the control of its parent. In general widgets are eligible to appear on the screen only after they are managed.

manager

1. RPC: A set of remote procedures that implement the operations of an RPC interface and that can be dedicated to a given type of object. *See also* object, RPC interface.
2. * *See also* device manager.
3. One of a group of widgets that can have children and can manage their geometry. Managers provide colors and input dispatching for gadget children.

map

1. To cause a region of the processor's virtual address space to be backed by a region of a file such that future references to addresses in the mapped range refer to the data in the file.
2. To mark a window as eligible to be visible on the screen. A window actually becomes visible when all of its ancestors are mapped and when it is not obscured by an ancestor or by another window.

menu

1. A displayed list of items from which a user can make a selection.
2. A popup widget usually allowing the user to make a single selection from a constrained set of choices. A menu is usually modal, suspending the application until the user makes a selection or dismisses the menu. When torn off, a menu becomes modeless, allowing the user to interact with the application while the menu remains visible.
3. A control generally containing a list of choices of any type.

mnemonic

1. A symbol chosen to help the user remember the significance of the symbol.
2. The field of an assembler instruction that contains the acronym or abbreviation for a machine instruction. Using mnemonics frees the programmer from having to remember the machine's numeric operator codes.
3. A single character (frequently the initial character) of a Menu selection. When the Menu is displayed and the user presses the key that corresponds to that character, the Menu selection is chosen.
4. A character that the user can type (possibly augmented with `Alt`) to move the focus elsewhere in a window or menu and/or to activate or toggle a choice whose label contains and emphasizes that character.

modal

1. A DialogBox that requires a response before you can interact with other components in an application.
2. A state of a dialog that requires the user to interact with the dialog before interacting with other parts of the application or with other applications. Three modal styles exist: primary application modal, full application modal, and system modal. *See also* modeless.
3. A state in which the user must complete the operation of the mode before continuing.

modeless

1. A DialogBox that does not limit your interaction with the rest of an application.
2. A state of a dialog that does not require the user to interact with the dialog before interacting with other parts of the application or with other applications. *See also* modal.
3. A state that does not interfere with the user performing any other action.

off−the−spot

A location for the pre−edit area in an input method. The input data is displayed in a window within the application window but not at the point of insertion.

on−the−spot

A location for the pre−edit area in an input method. The input data is displayed in a window at the point of insertion.

over−the−spot

A location for the pre−edit area in an input method. The input data is displayed in a window immediately above the point of insertion.

pane

1. On a display screen, the inner portion of a window used to present information to the user. A window can consist of one or more panes.
2. A widget that is a child of a PanedWindow. The user adjusts the size of a pane by means of a sash.
3. One of the separate areas in a split window or a paned box.

pending delete

1.A state of a Text component in which some user actions cause the current selection to be deleted.
2.A mode of a selection scope in which an insertion within a selected region replaces the selected item.

pixel

1.* *See also* picture element.
2.A unit of height and width for a window or pixmap. Each pixel has a number of bits or planes equal to the depth of the window or pixmap. Thus, each pixel has an integral value whose range depends on the depth of the drawable. The pixel value is used as an index into a colormap to determine the color to display for that pixel.

pixmap

A two−dimensional array of pixels, all of the same depth. Like a window, a pixmap is a drawable, an entity that can be the source or destination for a graphics operation.

popup

A widget that is outside the normal widget hierarchy. Any widget can have popup children, and the widget does not manage these children. A popup's window is a descendant of the root window, and the popup is not clipped by the parent widget. A popup usually appears on the screen temporarily in behalf of its parent. Dialogs and menus are the most common popups.

pre−edit area

An area that displays the intermediate text characters for languages whose characters may require more than one keystroke to complete.

pre−editing

Creating characters in a particular language by using individual keystrokes or combinations of keystrokes.

primitive

One of a group of widgets that usually do not have children.

property

An entity associated with a window and consisting of a name, a type, a data format, and data. Properties are often used for communicating between clients and between a client and the window manager.

realize

To create windows for a widget and its managed children.

receiver

The client containing the destination of a drag and drop transaction.

resource

1.A variable that controls a single aspect of the appearance or behavior of an application or component.
2.An element of a database representing options or values for attributes of an application. A resource is a triple consisting of a name, a class, and a value. A name and class may consist of components, each identifying the name or class of a particular level of a hierarchy. A widget can also have resources, whose values are derived from the resource database or set directly by the application.

root window

1.The window that covers the entire screen. The root window is the backdrop of your X environment. All windows and graphic objects appear stacked on the root window.
2.A window that covers the entire viewable extent of the screen and is the ancestor of all other windows on the screen.

root−window

A pre−edit area (or window) that is a child of the root window and not a part of the application window.

sash

1.A control with which the user changes the sizes of panes in a PanedWindow.
2.A box on a split bar through which users can directly manipulate the split bar to change the sizes of associated panes.

screen

1.* *See also* display screen.
2.The physical surface of a workstation upon which information is shown to users.
3.An abstraction that represents a single bitmapped output device on a display.
4.The physical surface of a display device upon which information is shown to users.

sensitive

Eligible to receive input events. Xt does not dispatch most input events to insensitive widgets.

server

1.RPC: The party that receives remote procedure calls. A given application can act as both an RPC server and an RPC client. *See also* client.
2.CDS: A node running CDS server software. A CDS server handles name−lookup requests and maintains the contents of the clearinghouse or clearinghouses at its node.
3.DTS: A system or process that synchronizes with its peers and provides its clock value to clerks and their client applications.
4.DFS: A provider of resources or services. *See also* client.
5.GDS: The server consists of a DSA, which accesses the database, and an S−stub, which handles the connection over the communications network for responding to remote clients and accessing remote servers.
6.An application program that usually runs in the background (daemon) and is controlled by the System Program Controller.
7.On a network, the computer that contains the data or provides the facilities to be accessed by other computers on the network.
8.A program that handles protocol, queuing, routing, and other tasks necessary for data transfer between devices in a computer system.
9.The component of the X Window System that manages input and the visual display.
10.The portion of a distributed program that handles requests for service from one or more client programs. The server's address space is separate from the client address spaces. *See also* client.

shell

1.A software interface between a user and the operating system of a computer. Shell programs interpret commands and user interactions on devices such as keyboards, pointing devices, and touch−sensitive screens and communicate them to the operating system. OSF/1 provides three shells: the Bourne, Korn, and C shell.
2.Software that allows a kernel program to run under different operating system environments.
3.The command interpreter that provides a user interface to the operating system and its commands. *See also* shell program, interface.
4.One of a group of widgets that envelop the top−level widgets, including dialogs and menus, in an application. A shell usually has only one managed child, and its window is often coincident with the managed child's window. A shell usually handles communication with the window manager.

status area

1.An input method output−only window thaqt identifies the input style (phonetic, numeric, stroke and radial, etc.) and the current status of an input method interaction.
2.A specific part of a window used to display information about the state of the current application task.

tab group

1.A widget or set of widgets to which the user traverses by means of the `Tab` key. Within a tab group, the user traverses to non−tab−group descendants by means of the arrow keys.
2.A control or group of controls to which the user can navigate by using Tab.

translation

A mapping from an event description to one or more actions. When a widget receives an event, Xt searches the widget's translation table for a matching event description. If it finds such a description, it invokes the associated action or actions.

traversal

1.* *See also* navigation.
2.* *See also* keyboard traversal.

vertical writing

The writing of characters or glyphs in columns (to be read from top to bottom) rather than in rows (to be read from left to

right or from right to left). Vertical writing is characteristic of some Asian languages.

virtual binding

An assocation between an abstract key or pointer button, known as a virtual key or virtual button, and a physical key or button on the display.

virtual key

An abstract representation of a key that is independent of any physical key. A virtual key is associated with a physical key by means of a virtual binding.

widget

1. The technical term for user–interface components.
2. An object used to hold data and present an interface to the user. A widget is a combination of state and procedure. Each widget is a member of a class, which holds the procedures and data structures common to all widgets of that class. A widget instance holds the procedures and data structures particular to that single widget. Each widget class typically provides the general behavior associated with a particular kind of interaction with the user.

window

1. In curses, the internal representation of what a portion of the display may look like at some point in time. Windows can be any size, from the entire display screen to a single character.
2. A division of a screen in which one of several programs being executing concurrently can display information.
3. In data communications, the number of data packets a DTE or DCE can send across a logical channel before waiting for authorization to send another data packet. The window is the main mechanism of pacing, or flow control, of packets.
4. In X.25 communications, the number of packets that can be outstanding without acknowledgement.
5. In the context of the OSF/1 loader, a temporarily established mapping for a (possibly) small piece of a file.
6. A data structure that represents all or part of the display screen. Visually, a window is represented as a subarea of the display screen.
7. An area with visible boundaries that can be defined so that the user can view interact with an application.

window manager

1. A program that controls the size, placement, and operation of windows on the workspace. The window manager includes the functional window frames that surround each window object and may include a separate Menu for the workspace.
2. A program that provides users with the capability to manipulate windows on the workspace; for example, opening, resizing, moving, and closing windows.