XtMakeGeometryRequest, XtMakeResizeRequest – make geometry manager request

XtGeometryResult XtMakeGeometryRequest(w, request, reply_return)

Widget w;
XtWidgetGeometry *request;
XtWidgetGeometry *reply_return;

XtGeometryResult XtMakeResizeRequest(w, width, height, width_return, height_return)

Widget w;
Dimension width, height;
Dimension *width_return, *height_return

reply_return     Returns the allowed widget size or may be NULL if the requesting widget is not interested in handling XtGeometryAlmost.
request          Specifies the desired widget geometry (size, position, border width, and stacking order).
w                Specifies the widget that is making the request.
width_return     Return the allowed widget width and height.
height_return    Return the allowed widget width and height.

Depending on the condition, XtMakeGeometryRequest performs the following:
• If the widget is unmanaged or the widget’s parent is not realized, it makes the changes and returns XtGeometryYes.
• If the parent is not a subclass of compositeWidgetClass or the parent’s geometry_manager is NULL, it issues an error.
• If the widget’s being_destroyed field is True, it returns XtGeometryNo.
• If the widget’s x, y, width, height and border_width fields are all equal to the requested values, it returns XtGeometryYes; otherwise, it calls the parent’s geometry_manager procedure with the given parameters.
• If the parent’s geometry manager returns XtGeometryYes and if XtCWQueryOnly is not set in the request_mode and if the widget is realized, XtMakeGeometryRequest calls the XConfigureWindow Xlib function to reconfigure the widget’s window (set its size, location, and stacking order as appropriate).
• If the geometry manager returns XtGeometryDone, the change has been approved and actually has been done. In this case, XtMakeGeometryRequest does no configuring and returns XtGeometryYes. XtMakeGeometryRequest never returns XtGeometryDone.

Otherwise, XtMakeGeometryRequest returns the resulting value from the parent’s geometry manager.

Children of primitive widgets are always unmanaged; thus, XtMakeGeometryRequest always returns XtGeometryYes when called by a child of a primitive widget.

The XtMakeResizeRequest function, a simple interface to XtMakeGeometryRequest, creates a XtWidgetGeometry structure and specifies that width and height should change. The geometry manager is free to modify any of the other window attributes (position or stacking order) to satisfy the resize request.

If the return value is XtGeometryAlmost, width_return and height_return contain a compromise width and height. If these are acceptable, the widget should immediately make an XtMakeResizeRequest and request that the compromise width and height be applied. If the widget is not interested in XtGeometryAlmost replies, it can pass NULL for width_return and height_return.

XtConfigureWidget(3Xt), XtQueryGeometry(3Xt)

X Toolkit Intrinsics – C Language Interface
Xlib – C Language X Interface