

NAME

XtManageChildren, XtManageChild, XtUnmanageChildren, XtUnmanageChild, XtChangeManagedSet, XtIsManaged - manage and unmanage children

SYNTAX

```
#include <X11/Intrinsic.h>
```

```
typedef Widget *WidgetList;
```

```
void XtManageChildren(WidgetList children, Cardinal num_children);
```

```
void XtManageChild(Widget child);
```

```
void XtUnmanageChildren(WidgetList children, Cardinal num_children);
```

```
void XtUnmanageChild(Widget child);
```

```
void XtChangeManagedSet(WidgetList unmanage_children, Cardinal num_unmanage_children,  
    XtDoChangeProc do_change_proc, XtPointer client_data, WidgetList manage_children, Cardinal  
    num_manage_children);
```

```
Boolean XtIsManaged(Widget widget);
```

ARGUMENTS

child Specifies the child.

children Specifies a list of child widgets.

num_children Specifies the number of children.

widget Specifies the widget.

manage_children
 Specifies the list of widget children to add to the managed set.

num_manage_children
 Specifies the number of entries in the *manage_children* list.

unmanage_children
 Specifies the list of widget children to remove from the managed set.

num_unmanage_children

Specifies the number of entries in the `unmanage_children` list.

do_change_proc

Specifies the post unmanage, pre manage hook procedure to invoke.

client_data

Specifies the client data to be passed to the hook procedure.

DESCRIPTION

The **XtManageChildren** function performs the following:

- ⊕ Issues an error if the children do not all have the same parent or if the parent is not a subclass of **compositeWidgetClass**.
- ⊕ Returns immediately if the common parent is being destroyed; otherwise, for each unique child on the list, **XtManageChildren** ignores the child if it already is managed or is being destroyed and marks it if not.
- ⊕ If the parent is realized and after all children have been marked, it makes some of the newly managed children viewable:
 - Calls the `change_managed` routine of the widgets' parent.
 - Calls **XtRealizeWidget** on each previously unmanaged child that is unrealized.
 - Maps each previously unmanaged child that has `map_when_managed` **True**.

Managing children is independent of the ordering of children and independent of creating and deleting children. The layout routine of the parent should consider children whose `managed` field is **True** and should ignore all other children. Note that some composite widgets, especially fixed boxes, call **XtManageChild** from their `insert_child` procedure.

If the parent widget is realized, its `change_managed` procedure is called to notify it that its set of managed children has changed. The parent can reposition and resize any of its children. It moves each child as needed by calling **XtMoveWidget**, which first updates the `x` and `y` fields and then calls **XMoveWindow** if the widget is realized.

The **XtManageChild** function constructs a **WidgetList** of length one and calls **XtManageChildren**.

The **XtUnmanageChildren** function performs the following:

- ⊕ Issues an error if the children do not all have the same parent or if the parent is not a subclass of **compositeWidgetClass**.
- ⊕ Returns immediately if the common parent is being destroyed; otherwise, for each unique child on the list, **XtUnmanageChildren** performs the following:
 - Ignores the child if it already is unmanaged or is being destroyed and marks it if not.
 - If the child is realized, it makes it nonvisible by unmapping it.
- ⊕ Calls the `change_managed` routine of the widgets' parent after all children have been marked if the parent is realized.

XtUnmanageChildren does not destroy the children widgets. Removing widgets from a parent's managed set is often a temporary banishment, and, some time later, you may manage the children again.

The **XtUnmanageChild** function constructs a widget list of length one and calls **XtUnmanageChildren**.

The **XtChangeManagedSet** function performs the following:

- ⊕ Issues an error if the widgets specified in the *manage_children* and the *unmanage_children* lists do not all have the same parent, or if that parent is not a subclass of **compositeWidgetClass**.
- ⊕ Returns immediately if the common parent is being destroyed.
- ⊕ If no **CompositeClassExtension** is defined, or a **CompositeClassExtension** is defined but with an *allows_change_managed_set* field with a value of **False**, and **XtChangeManagedSet** was invoked with a non-NULL *do_change_proc* procedure then **XtChangeManagedSet** performs the following:
 - Calls **XtUnmanageChildren** (*unmanage_children*, *num_unmanage_children*).
 - Calls the *do_change_proc* specified.
 - Calls **XtManageChildren** (*manage_children*, *num_manage_children*) and then returns immediately.
- ⊕ Otherwise, if a **CompositeClassExtension** is defined with an *allows_change_managed_set* field with a value of **True**, or if no **CompositeClassExtension** is defined, and **XtChangeManagedSet**

was invoked with a NULL *do_change_proc* procedure, then the following is performed:

- For each child on the *unmanage_children* list; if the child is already unmanaged or is being destroyed it is ignored, otherwise it is marked as being unmanaged and if it is realized it is made nonvisible by being unmapped.
 - If the *do_change_proc* procedure is non-NULL then it is invoked as specified.
 - For each child on the *manage_children* list; if the child is already managed or it is being destroyed it is ignored, otherwise it is marked as managed
- ⊕ If the parent is realized and after all children have been marked, the *change_managed* method of the parent is invoked and subsequently some of the newly managed children are made viewable by:
- Calling **XtRealizeWidget** on each of the previously unmanaged child that is unrealized.
 - Mapping each previously unmanaged child that has *map_when_managed* **True**.

The **XtIsManaged** function returns **True** if the specified widget is of class **RectObj** or any subclass thereof and is managed, or **False** otherwise.

SEE ALSO

XtMapWidget(3), XtRealizeWidget(3)

X Toolkit Intrinsics - C Language Interface

Xlib - C Language X Interface