XtAppInitialize, XtVaAppInitialize – initialize, open, or close a display

**Widget XtAppInitialize**

(app_context_return, application_class, options, num_options, argc_in_out, argv_in_out, fallback_resources, args, num_args)

XtAppInitialize(app_context_return, application_class, options, num_options, argc_in_out, argv_in_out, fallback_resources, args, num_args);

- **app_context_return**
  - Specifies the application context.

- **application_class**
  - Specifies the class name of this application, which usually is the generic name for all instances of this application.

- **options**
  - Specifies how to parse the command line for any application-specific resources. The options argument is passed as a parameter to **XrmParseCommand**. For further information, see [Xlib – C Language X Interface](https://www.xlib.org).

- **num_options**
  - Specifies the number of entries in the options list.

- **argc_in_out**
  - Specifies a pointer to the number of command line parameters.

- **argv_in_out**
  - Specifies the command line parameters.

- **fallback_resources**
  - Specifies resource values to be used if the application class resource file cannot be opened or read, or NULL.

- **args**
  - Specifies the argument list to override any other resource specification for the created shell widget.

- **num_args**
  - Specifies the number of entries in the argument list.

- **...**
  - Specifies the variable argument list to override any other resource specification for the created shell widget.

The **XtAppInitialize** function calls **XtToolkitInitialize** followed by **XtCreateApplicationContext**, then calls **XtOpenDisplay** with **display_string** NULL and **application_name** NULL, and finally calls **XtAppCreateShell** with **application_name** NULL, **widget_class** **applicationShellWidgetClass**, and the specified **args** and **num_args** and returns the created shell. The modified **argc** and **argv** returned by **XtDisplayInitialize** are returned in **argc_in_out** and **argv_in_out**. If **app_context_return** is not NULL, the created application context is also returned. If the display specified by the command line cannot be opened, an error message is issued and **XtAppInitialize** terminates the application. If **fallback_resources** is non-NULL, **XtAppSetFallbackResources** is called with the value prior to calling **XtOpenDisplay**.

**XtAppInitialize** and **XtVaAppInitialize** have been superceded by **XtOpenApplication** and **XtVaOpenApplication** respectively.
XtOpenApplication(3Xt), XtVaOpenApplication(3Xt)

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