

Locator Configuration for a Server

On this page:

- [Configuring an Object Adapter with a Locator](#)
- [Registering a Process with a Locator](#)

Configuring an Object Adapter with a Locator

An [object adapter](#) must be able to obtain a [locator](#) proxy in order to register itself with a location service. Each object adapter can be configured with its own locator proxy by defining its [Locator](#) property, as shown in the example below for the object adapter named `SampleAdapter`:

```
SampleAdapter.Locator=IceGrid/Locator:tcp -h locatorhost -p 10000
```

Alternatively, a server may call `setLocator` on the object adapter prior to activation. If the object adapter is not explicitly configured with a locator proxy, it uses the [default locator](#) as provided by its communicator.

Two other configuration properties influence an object adapter's interactions with a location service during activation:

- [AdapterId](#)
Configuring a non-empty identifier for the `AdapterId` property causes the object adapter to register itself with the location service. A locator proxy must also be configured.
- [ReplicaGroupId](#)
Configuring a non-empty identifier for the `ReplicaGroupId` property indicates that the object adapter is a member of a [replica group](#). For this property to have an effect, `AdapterId` must also be configured with a non-empty value.

We can use these properties as shown below:

```
SampleAdapter.AdapterId=SampleAdapterId
SampleAdapter.ReplicaGroupId=SampleGroupId
SampleAdapter.Locator=IceGrid/Locator:tcp -h locatorhost -p 10000
```

Note that a location service may enforce [pre-registration requirements](#).

Registering a Process with a Locator

An activation service, such as an [IceGrid](#) node, needs a reliable way to gracefully deactivate a server. One approach is to use a platform-specific mechanism, such as POSIX signals. This works well on POSIX platforms when the server is prepared to [intercept signals](#) and react appropriately. On Windows platforms, it works less reliably for C++ servers, and not at all for Java servers. For these reasons, Ice provides an alternative that is both portable and reliable:

Slice

```
module Ice {
  interface Process {
    void shutdown();
    void writeMessage(string message, int fd);
  };
};
```

The Slice interface `Process` allows an activation service to request a graceful shutdown of the server. When `shutdown` is invoked, the object implementing this interface is expected to initiate the termination of its server process. The activation service may expect the server to terminate within a certain period of time, after which it may terminate the server abruptly.

One of the benefits of the Ice [administrative facility](#) is that it creates an implementation of `Process` and makes it available via an administrative object adapter. Furthermore, IceGrid automatically enables this facility on the servers that it activates.

See Also

- [Object Adapters](#)
- [Locators](#)
- [Locator Configuration for a Client](#)
- [Locator Semantics for Servers](#)
- [Portable Signal Handling in C++](#)
- [The Process Facet](#)
- [Administrative Facility](#)
- [IceGrid](#)