

IceFIX Bridge Administrative Utility



IceFIX includes an administrative command-line tool named `icefixadmin`.

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Using icefixadmin

You can administer an IceFIX bridge using the `icefixadmin` tool. If you deploy a bridge as a [standalone server](#), you must configure `icefixadmin` with a proxy for the bridge using the property `IceFIXAdmin.Bridge`. Alternatively, if you deploy a bridge using [IceGrid](#), you must configure `icefixadmin` with the property `Ice.Default.Locator`, and each bridge must have an associated well-known object with the type id `::IceFIX::Bridge` (see `application.xml` in `demo/grid` for an example).

`icefixadmin` supports the following command-line options:

```
$ icefixadmin -h
Usage: icefixadmin [options]
Options:
-h, --help           Show this message.
-v, --version        Display the Ice version.
-e COMMANDS          Execute COMMANDS.
-d, --debug          Print debug messages.
```

The tool operates in one of two modes, depending on the command-line arguments. If one or more `-e` options are specified, the tool executes the given commands and exits. Otherwise, the tool enters an interactive session.

In an interactive session, the `help` command displays the following usage information:

- `help`
Print this message.
- `exit, quit`
Exit this program.
- `activate [list]`
Activate the specified bridges, or all by default.
- `deactivate [list]`
Deactivate the specified bridges, or all by default.
- `status [list]`
Report the status for the specified bridges, or all by default.
- `clean timeout [list]`
Clean the database of all records older than `timeout` for the specified bridges, or all by default.
- `testclean timeout [list]`
Show the number of records older than `timeout` that would be erased for the specified bridges, or for all bridges by default.
- `dbstat [list]`
Report the status of the databases for the specified bridges, or all by default.
- `status [list]`
Report the status for the specified bridges, or all by default.
- `clients [list]`
Show the registered clients for the specified bridges, or all by default.
- `unregister [--force] [bridge] ID`
Unregister the given client from the specified bridge, or all by default.

Most of the commands accept a `[list]` argument representing the names of one or more bridges; this argument is only relevant for an IceGrid deployment. Bridge names containing white space, or matching a command keyword, must be enclosed in single or double quotes. The bridge name is the same as the instance name in the IceGrid deployment.

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Bridge life cycle

A bridge starts in an inactive state and does not connect to its configured FIX acceptor until it is activated via the `activate` command. Once activated, the bridge continues to relay and store messages until it is deactivated using the `deactivate` command. The current state of the bridge can be determined using the `status` command.

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Administering bridge databases

A bridge maintains several databases containing routing records for FIX messages that it sends on behalf of its connected clients. These routing records, although small, must be erased administratively on a regular basis, such as bi-weekly, to prevent the database from becoming too large. You can examine the number of records in a bridge's databases using the `dbstat` command.

`icefixadmin` provides two commands for managing these routing records: `clean` and `testclean`. The `clean` command removes records that are older than a given timeout period, whereas `testclean` shows the number of records that would be erased for a given timeout period without actually removing those records. The timeout argument has the format `[nd]hh[:mm[:ss]]`. For example, the value `10` represents a timeout of 10 hours; `5d10` means 5 days, 10 hours; and `1d1:10:10` is a timeout of 1 day, 1 hour, 10 minutes and 10 seconds.

The timeout period must be large enough to guarantee that the bridge will not receive a FIX message in the future that correlates to an existing routing record. For example, if multi-day orders are sent with a one-week outstanding duration then choosing a timeout period of two days might unintentionally remove pending orders.

Administering bridge clients

Each IceFIX client has a unique persistent identity that a bridge uses to identify the client and route its messages. A client's identity can be assigned administratively, or the bridge can assign an identity during the client's installation. The identity can be any text string, as long as it is unique per client.

You can obtain the current set of registered client identities using the `clients` command. Once a client has been uninstalled, the client should also be unregistered from the bridge to ensure that the identity namespace is kept clean, and to prevent messages from accumulating for the now-uninstalled client. The `unregister` command removes a client's registration, but only if the client is not currently connected and does not have any queued messages. You can force the bridge to unregister a client by including the `--force` option.

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