

Freeze Properties

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Freeze.DbEnv.*env-name*.CheckpointPeriod

Synopsis

```
Freeze.DbEnv.env-name.CheckpointPeriod=num
```

Description

Every Berkeley DB environment created by Freeze has an associated thread that checkpoints this environment every *num* seconds. If *num* is less than 0, no checkpointing is performed. The default is 120 seconds.

Freeze.DbEnv.*env-name*.DbHome

Synopsis

```
Freeze.DbEnv.env-name.DbHome=db-home
```

Description

Defines the home directory of this Freeze database environment. The default directory is *env-name*.

Freeze.DbEnv.*env-name*.DbPrivate

Synopsis

```
Freeze.DbEnv.env-name.DbPrivate=num
```

Description

If *num* is set to a value larger than zero, Freeze instructs Berkeley DB to use process-private memory instead of shared memory. The default value is 1. Set this property to 0 in order to run a [FreezeScript](#) utility, or a Berkeley DB utility such as `db_archive`, on a running environment.

Freeze.DbEnv.*env-name*.DbRecoverFatal

Synopsis

```
Freeze.DbEnv.env-name.DbRecoverFatal=num
```

Description

If *num* is set to a value larger than zero, fatal recovery is performed when the environment is opened. The default value is 0.

Freeze.DbEnv.*env-name*.EncodingVersion

Synopsis

```
Freeze.DbEnv.env-name.EncodingVersion=encoding
```

Description

Defines the encoding used to decode keys and to encode keys and values. The default value is the value of [Ice.Default.EncodingVersion](#).

Freeze.DbEnv.*env-name*.LockFile

Synopsis

```
Freeze.DbEnv.env-name.LockFile=num
```

Description

If *num* is set to a value larger than zero, Freeze creates a lock file in the database environment to prevent other processes from opening the environment. The default value is 1.

Note that applications should not normally disable the lock file because simultaneous access to the same environment by multiple processes can lead to data corruption.

[FreezeScript](#) utilities automatically disable the lock file when [Freeze.DbEnv.*env-name*.DbPrivate](#) is set to zero.

Freeze.DbEnv.*env-name*.OldLogsAutoDelete

```
Freeze.DbEnv.env-name.OldLogsAutoDelete=num
```

If *num* is set to a value larger than zero, old transactional logs no longer in use are deleted after each periodic checkpoint (see [Freeze.DbEnv.*env-name*.CheckpointPeriod](#)). The default value is 1.

Freeze.DbEnv.*env-name*.PeriodicCheckpointMinSize

Synopsis

```
Freeze.DbEnv.env-name.PeriodicCheckpointMinSize=num
```

Description

num is the minimum size in kilobytes for the periodic checkpoint (see [Freeze.DbEnv.*env-name*.CheckpointPeriod](#)). This value is passed to Berkeley DB's `checkpoint` function. The default is 0 (which means no minimum).

Freeze.Evictor.*env-name.filename.name*.BtreeMinKey

Synopsis

```
Freeze.Evictor.env-name.filename.name.BtreeMinKey=num
```

Description

name represents a database name or an index name. This property sets the B-tree minkey of the corresponding Berkeley DB database. *num* is ignored if it is less than 2. Please refer to the [Berkeley DB documentation](#) for details.

Freeze.Evictor.*env-name.filename.name*.Checksum

Synopsis

```
{{Freeze.Evictor.env-name.filename.Checksum=num
```

Description

If *num* is greater than 0, checksums on the corresponding Berkeley DB database(s) are enabled. Please refer to the [Berkeley DB documentation](#) for details.

Freeze.Evictor.*env-name.filename*.MaxTxSize

Synopsis

```
Freeze.Evictor.env-name.filename.MaxTxSize=num
```

Description

Freeze can use a [background thread](#) to save updates to the database. Transactions are used to save many facets together. *num* defines the maximum number of facets saved per transaction. The default is 10 * `SaveSizeTrigger` (see `Freeze.Evictor.env-name.filename.SaveSizeTrigger`); if this value is negative, the actual value is set to 100.

Freeze.Evictor.*env-name.filename*.PageSize

Synopsis

```
Freeze.Evictor.env-name.filename.PageSize=num
```

Description

If *num* is greater than 0, it sets the page size of the corresponding Berkeley DB database(s). Please refer to the [Berkeley DB documentation](#) for details.

Freeze.Evictor.*env-name.filename*.PopulateEmptyIndices

Synopsis

```
Freeze.Evictor.env-name.filename.PopulateEmptyIndices=num
```

Description

When *num* is not 0 and you create an evictor with one or more empty indexes, the `createBackgroundSaveEvictor` or `createTransactionalEvictor` call will populate these indexes by iterating over all the corresponding facets. This is particularly useful after transforming a Freeze evictor with `FreezeScript`, since `FreezeScript` does not transform indexes; however this can significantly slow down the creation of the evictor if you have an empty index because none of the facets currently in the database match the type of this index. The default value for this property is 0.

Freeze.Evictor.*env-name.filename*.RollbackOnUserException

Synopsis

```
Freeze.Evictor.env-name.filename.RollbackOnUserException=num
```

Description

If *num* is non-zero, a transactional evictor rolls back its transaction if the outcome of the dispatch is a user exception. If *num* is 0 (the default), the transactional evictor commits the transaction.

Freeze.Evictor.*env-name.filename*.SavePeriod

Synopsis

```
Freeze.Evictor.env-name.filename.SavePeriod=num
```

Description

Freeze can use a [background thread](#) to save updates to the database. After *num* milliseconds without saving, if any facet is created, modified, or destroyed, this background thread wakes up to save these facets. When *num* is 0, there is no periodic saving. The default is 60000.

Freeze.Evictor.*env-name.filename*.SaveSizeTrigger

Synopsis

```
Freeze.Evictor.env-name.filename.SaveSizeTrigger=num
```

Description

Freeze can use a [background thread](#) to save updates to the database. When *num* is 0 or positive, as soon as *num* or more facets have been created, modified, or destroyed, this background thread wakes up to save them. When *num* is negative, there is no size trigger. The default is 10.

Freeze.Evictor.*env-name.filename*.StreamTimeout

Synopsis

```
Freeze.Evictor.env-name.filename.StreamTimeout=num
```

Description

When the saving thread saves an object, it needs to lock this object in order to get a consistent copy of the object's state. If the lock cannot be acquired within *num* seconds, a fatal error is generated. If a [fatal error callback](#) was registered by the application, this callback is called; otherwise the program is terminated immediately. When *num* is 0 or negative, there is no timeout. The default value is 0.

Freeze.Map.*name*.BtreeMinKey

Synopsis

```
Freeze.Map.name.BtreeMinKey=num
```

Description

name may represent a database name or an index name. This property sets the B-tree minkey of the corresponding Berkeley DB database. *num* is ignored if it is less than 2. Please refer to the [Berkeley DB documentation](#) for details.

Freeze.Map.name.Checksum

Synopsis

```
Freeze.Map.name.Checksum=num
```

Description

name may represent a database name or an index name. If *num* is greater than 0, checksums for the corresponding Berkeley DB database are enabled. Please refer to the [Berkeley DB documentation](#) for details.

Freeze.Map.name.PageSize

Synopsis

```
Freeze.Map.name.PageSize=num
```

Description

name may represent a database name or an index name. If *num* is greater than 0, it sets the page size of the corresponding Berkeley DB database. Please refer to the [Berkeley DB documentation](#) for details.

Freeze.Trace.DbEnv

Synopsis

```
Freeze.Trace.DbEnv=num
```

Description

The Freeze database environment activity trace level:

0	No database environment activity trace (default).
1	Trace database open and close.
2	Also trace checkpoints and the removal of old log files.

Freeze.Trace.Evictor

Synopsis

```
Freeze.Trace.Evictor=num
```

Description

The Freeze evictor activity trace level:

0	No evictor activity trace (default).
1	Trace Ice object and facet creation and destruction, facet streaming time, facet saving time, object eviction (every 50 objects) and evictor deactivation.
2	Also trace object lookups, and all object evictions.

3	Also trace object retrieval from the database.
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Freeze.Trace.Map

Synopsis

`Freeze.Trace.Map=num`

Description

The Freeze map activity trace level:

0	No map activity trace (default).
1	Trace database open and close.
2	Also trace iterator and transaction operations, and reference counting of the underlying database.

Freeze.Trace.Transaction

Synopsis

`Freeze.Trace.Transaction=num`

Description

The Freeze transaction activity trace level:

0	No transaction activity trace (default).
1	Trace transaction IDs and commit and rollback activity.

Freeze.Warn.Deadlocks

Synopsis

`Freeze.Warn.Deadlocks=num`

Description

If *num* is set to a value larger than zero, Freeze logs a warning message when a deadlock occur. The default value is 0.

Freeze.Warn.Rollback

Synopsis

`Freeze.Warn.Deadlocks=num`

Description

If *num* is set to a value larger than zero, Freeze logs a warning message when it rolls back a transaction that goes out of scope together with its associated connection. The default value is 1. (C++ only)