

aspect Checkpointable depends on ZeroToMany, Copyable

structural view

ICheckpointable

Checkpoint

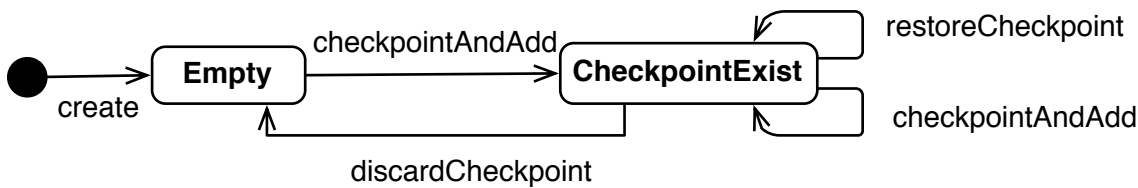
ICheckpointable

+ Checkpoint create()
- addCheckpointable(ICheckpointable c)
~ Set<ICheckpointable> getCheckpointables()
+ checkpointAndAdd(ICheckpointable c)
+ restoreCheckpoint()
+ discardCheckpoint()

Instantiations:

Copyable: ICopyable → ICheckpointable
ZeroToMany-Ordered: IData → ICheckpoint; IAssociated → ICheckpointable; getAssociated → getCheckpointables;
add → addCheckpointable; get → getCheckpointable; remove → removeCheckpointable
ZeroToMany-Ordered: IData → ICheckpoint; IAssociated → ICheckpointable; getAssociated → getBackupCopies;
add → addBackupCopy; get → getBackupCopy; remove → removeBackupCopy

state view Checkpoint



state view ICheckpointable is Copyable.ICopyable

message view checkpointAndAdd

target: Checkpoint

checkpointAndAdd(c)
already := contains(c)

opt [!contains]

addCheckpointable(c)

backupCopy := copy()

addBackupCopy(i, backupCopy)

cp: ICheckpointable

message view restoreCheckpoint

target: Checkpoint

restoreCheckpoint()
numberOfObjects := getSize()

loop [i = 0; i < numberOfObjects; i++]

cp := getCheckpointable(i)

backup := getBackupCopy(i)

replaceStateWith(backup)

cp: ICheckpointable

message view discardCheckpoint

target: Checkpoint

discardCheckpoint()
numberOfObjects := getSize()

loop [i = 0; i < numberOfObjects; i++]

removeCheckpointable(i)

removeBackupCopy(i)