edu.mit.csail.aeolus.api

Class PID

```
java.lang.Object
  └ edu.mit.csail.aeolus.api.PID
```

All Implemented Interfaces:

AeolusSafe, java.io.Serializable, java.lang.Cloneable

```
public final class PIDextends java.lang.Objectimplements java.io.Serializable, java.lang.Cloneable, AeolusSafe
```

Objects of this class represent principals.

See Also:

Serialized Form

Constructor Summary

PID() Creates a new principal.	

Method Summary

void	**actFor**(PID p) Adds an act-for link from this to principal p.
PID	**clone**() Returns a new PID which will be equal to this.
boolean	**doesActFor**(PID p) Returns true if and only if p acts for this
boolean	**equals**(PID p) Returns true if the PID p equals this, otherwise returns false
static PID	**getPublicPID**() Returns the public PID
void	**revoke**(PID p) Removes the act-for link from this to principal p.
java.lang.String	**toString**() Returns a string representation of this.

Methods inherited from class java.lang.Object
equals, finalize, getClass, hashCode, notify, notifyAll, wait, wait, wait

Constructor Detail

PID

```
public PID()
    throws AuthorityException,
           InfoFlowControlException,
           AeolusException
```

Creates a new principal. Caller principal will act for the new principal.

Throws:

`AuthorityException` - - if caller principal not authorized to create a new principal (i.e. if the caller is the public principal)
`AeolusException` - - if failure in communicating with the authority server or an unexpected platform failure occurred
`InfoFlowControlException` - - if caller's secrecy label is not null

Method Detail

actFor

```
public void actFor(PID p)
            throws InfoFlowControlException,
                   AuthorityException,
                   AeolusException
```

Adds an act-for link from this to principal p. Caller's principal must act for this and p must not be the public pid.

Throws:

`AuthorityException` - - if caller principal does not act for this or if p is the public pid
`AeolusException` - - if failure in communicating with the authority server or an unexpected platform failure occurred or would create a cycle in the principal hierarchy
`InfoFlowControlException` - - if caller's secrecy label is not null

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clone

```
public PID clone()
```

Returns a new PID which will be equal to this.

Overrides:
`clone` in class `java.lang.Object`

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doesActFor

```
public boolean doesActFor(PID p)
```

Returns true if and only if p acts for this

---

equals

```
public boolean equals(PID p)
```

Returns true if the PID p equals this, otherwise returns false

---

getPublicPID

```
public static PID getPublicPID()
```

Returns the public PID

---

revoke

```
public void revoke(PID p)
            throws AuthorityException,
                   AeolusException,
                   InfoFlowControlException
```

Removes the act-for link from this to principal p. Current principal must act for principal p.

Throws:
`AuthorityException` - - if caller principal doesn't act-for this or there is no link from this to p
`AeolusException` - - if failure in communicating with the authority server or an unexpected platform failure occurred
`InfoFlowControlException` - - if caller's secrecy label is not null

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toString

```
public java.lang.String toString()
```

Returns a string representation of this.

Overrides:

`toString` in class `java.lang.Object`