

## 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

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```
public final class PID extends java.lang.Object implements java.io.Serializable, java.lang.Cloneable, AeolusSafe
```

Objects of this class represent principals.

### See Also:

[Serialized Form](#)

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## Constructor Summary

<b>PID</b> ( )	
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Creates a new principal.	
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## Method Summary

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

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