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- [Prev Class](#)
- [Next Class](#)

- [Frames](#)
- [No Frames](#)

- [All Classes](#)

- [Summary:](#)
- [Nested |](#)
- [Field |](#)
- [Constr |](#)
- [Method](#)

- [Detail:](#)
- [Field |](#)
- [Constr |](#)
- [Method](#)

jminusminus

## Class JNewOp

- [java.lang.Object](#)
- [jminusminus.AST](#)
- [jminusminus.JStatement](#)
- [jminusminus.JExpression](#)
- [jminusminus.JNewOp](#)

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```
class JNewOp
extends JExpression
```

The AST node for a "new" expression. It keeps track of its type, the Constructor representing the expression, its arguments and their types.

- **Field Summary**
- **Fields inherited from class jminusminus.JExpression**  
[isStatementExpression](#), [type](#)
- **Fields inherited from class jminusminus.JAST**  
[compilationUnit](#), [line](#)
- **Constructor Summary**

Constructors  
**Constructor and Description**

```
JNewOp(int line, Type type,
ArrayList<JExpression> arguments)
Construct an AST node for a "new" expression.
```

- **Method Summary**

Methods	
Modifier and Type	Method and Description
<code>JExpression</code>	<b><code>analyze</code></b> ( <code>Context</code> context) To analyze the new operation, we (1) resolve the type, (2) analyze its arguments, (3) check accessibility of the type, (3) find the appropriate Constructor.
<code>void</code>	<b><code>codegen</code></b> ( <code>CLEmitter</code> output) Generating code for a new operation involves generating the NEW instruction for creating the object on the stack, then generating the code for the actual arguments, and then code for invoking the constructor (the initialization method).
<code>void</code>	<b><code>writeToStdOut</code></b> ( <code>PrettyPrinter</code> p) Write the information pertaining to this AST to STDOUT.

- **Methods inherited from class `jminusminus.JExpression`**

`codegen`, `isStatementExpression`, `type`

- **Methods inherited from class `jminusminus.JAST`**

`clone`, `hashCode`, `toString`

- **Methods inherited from class `java.lang.Object`**

`clone`, `equals`, `finalize`, `getClass`, `hashCode`, `notify`, `notifyAll`, `toString`, `wait`, `wait`, `wait`

- **Constructor Detail**

- **`JNewOp`**

```
public JNewOp(int line,
              Type type,
              ArrayList<JExpression> arguments)
```

Construct an AST node for a "new" expression.

**Parameters:**

`line` - the line in which the "new" expression occurs in the source file.

`type` - the type being constructed.

`arguments` - arguments to the constructor.

- **Method Detail**

- **`analyze`**

```
public JExpression analyze(Context context)
```

To analyze the new operation, we (1) resolve the type, (2) analyze its arguments, (3) check accessibility of the type, (3) find the appropriate Constructor.

**Specified by:**

`analyze` in class `JExpression`

**Parameters:**

`context` - context in which names are resolved.

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**Returns:**

the analyzed (and possibly rewritten) AST subtree.

- **codegen**

```
public void codegen(CLEmitter output)
```

Generating code for a new operation involves generating the NEW instruction for creating the object on the stack, then generating the code for the actual arguments, and then code for invoking the constructor (the initialization method).

**Specified by:**

`codegen` in class `JAST`

**Parameters:**

`output` - the code emitter (basically an abstraction for producing the .class file).

- **writeToStdOut**

```
public void writeToStdOut(PrettyPrinter p)
```

**Description copied from class: `JAST`**

Write the information pertaining to this AST to STDOUT.

**Specified by:**

`writeToStdOut` in class `JAST`

**Parameters:**

`p` - for pretty printing with indentation.

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- [Prev Class](#)

- [Next Class](#)

- [Frames](#)
- [No Frames](#)
- [All Classes](#)

- [Summary:](#)
- [Nested |](#)
- [Field |](#)
- [Constr |](#)
- [Method](#)

- [Detail:](#)
- [Field |](#)
- [Constr |](#)
- [Method](#)

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