

classgen($C, \overline{mt}, \overline{mt'}, D, K$) =

```
class D {
  that: C
```

```
  m(x:  $\star$ ):  $\star \{ \langle \star \rangle \triangleleft t' \triangleright \text{this.that().m}(\triangleleft C' \triangleright \triangleleft t \triangleright x) \}$ 
```

$\forall m . m(C'): C'' \in \overline{mt} \wedge m(t): t' \in \overline{mt'}$

```
  m(x:  $\star$ ):  $\star \{ \langle \star \rangle \triangleleft t' \triangleright (\langle \star \rangle \text{ this.that()})@m(\triangleleft \star \triangleright \triangleleft t \triangleright x) \}$ 
```

$\forall m . m(\star): \star \in \overline{mt} \wedge m(t): t' \in \overline{mt'}$

```
  f(x:  $\star$ ):  $\star \{ \langle \star \rangle \triangleleft t' \triangleright \text{this.that().f}(\triangleleft t \triangleright \triangleleft t' \triangleright x) \}$ 
```

$\forall f . f(t): t \in \overline{mt} \wedge f(t'): t' \in \overline{mt'}$

```
  f():  $\star \{ \langle \star \rangle \triangleleft t' \triangleright \text{this.that().f}() \}$ 
```

$\forall f . f(): t \in \overline{mt} \wedge f(): t' \in \overline{mt'}$

```
  f():  $\star \{ \langle \star \rangle \text{ this.that().f}() \}$ 
```

$\forall f . f(): t \in \overline{mt} \wedge f(): t' \notin \overline{mt'}$

```
  f(x:  $\star$ ):  $\star \{ \langle \star \rangle \text{ this.that().f}(\triangleleft \star \triangleright \triangleleft t \triangleright x) \}$ 
```

$\forall f . f(t): t \in \overline{mt} \wedge f(t'): t' \notin \overline{mt'}$

```
  m(x:  $\star$ ):  $\star \{ \langle \star \rangle \text{ this.that().m}(\triangleleft \star \triangleright x) \}$ 
```

$\forall m . m(\star): \star \in \overline{mt} \wedge m(t): t' \notin \overline{mt'}$

```
  m(x:  $\star$ ):  $\star \{ (\langle \star \rangle \text{ this.that()})@m(\triangleleft \star \triangleright x) \}$ 
```

$\forall m . m(\star): \star \in \overline{mt} \wedge m(t): t' \notin \overline{mt'}$

```
  m(x:  $t_2$ ):  $t'_2 \{ \triangleleft t'_2 \triangleright \text{this.that().m}(\triangleleft t_1 \triangleright x) \}$ 
```

$\forall m . m(t_1): t'_1 \in \overline{mt} \wedge m(t_2): t'_2 \in \overline{mt'}$
 $\wedge \text{static}(t_2, K, \cdot) \wedge \text{static}(t'_2, K, \cdot)$

```
  m(x:  $t_1$ ):  $t'_1 \{ \text{this.that().m}(x) \}$ 
```

$\forall m . m(t_1): t'_1 \in \overline{mt} \wedge m(t_2): t'_2 \notin \overline{mt'}$
 $\wedge \text{static}(t_1, K, \cdot) \wedge \text{static}(t'_1, K, \cdot)$

}