



Figure 7.3 State diagram symbols

Table 7.1: Events in the 'In credit' state

Event	Result
money is deposited	the account remains in the 'In credit' state
all the money is withdrawn and the account is closed	the account moves into the stop state

While in the 'In credit' state the 'deposit money' event leaves a BankAccount object in the same state. This is known as a self-transition and can be seen as a loop on the 'In credit' state in the diagram in Figure 7.2.

Withdrawing all the money and closing the account causes a BankAccount object to move from the 'In credit' state to the stop state.

Another event which a BankAccount object may undergo while in the 'In credit' state is a 'withdraw money' event. This event can occur with different conditions or guards and therefore may affect the object in different ways (see Table 7.2). It is important to note that the guards relating to an event coming out of a state must be mutually exclusive. This is to ensure that there is no ambiguity about how an object responds to the event. The guards are shown in the state diagram in square brackets.

One of the things that can happen while a BankAccount is in the 'Overdrawn' state is that money may be deposited. This event ('deposit money') can have different conditions or guards and so affect the object in different ways (see Table 7.3).