



Can you do anything under any circumstances?

An order can't be done anything at all times.

What state an order can be in?

Is it possible to get from any state to any other state?

What makes a state to change?

How do states exhibit in the code itself and in a working system?

Can we use a single state machine to describe all the states, also different data types's states?

Can a system be in several states at once?

States with no actions constitute a prececed - the behavior form. Actions define the behavior content.

By defining actions, we narrow the operations that the system can perform.

What's the difference compared to sequence diagrams?

State

Transition

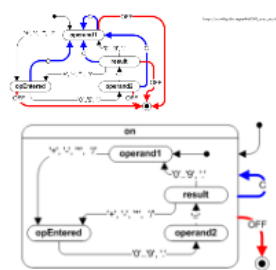
event (condition) / action

UML: trigger (guard) / effect

Automaton

Finite state machine

Statechart



Precedence Diagram

Microstate Diagram

Act

Act

Context

Detailed state diagrams and activity diagrams are similar.

A state: an abstraction of a readiness to realize behavior	A transition: an abstraction of the ability to get into a certain state
A combinatorial explosion of states and transitions can be prevented with composite states	States with no actions make a prececed - behavior form; actions determine the behavior content

Lecture 5:

State Diagrams

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Transition

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Finite state machine

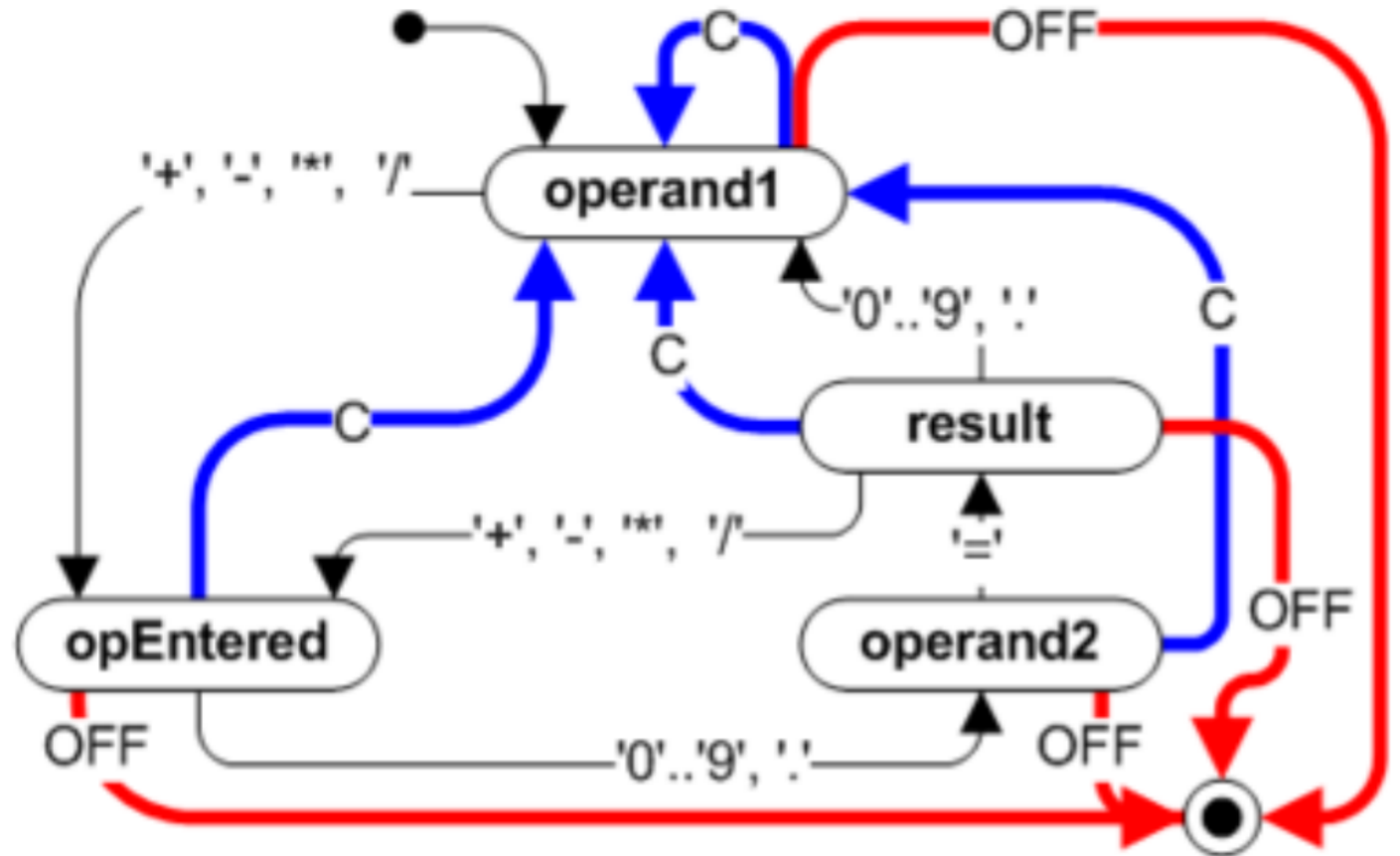
Statechart

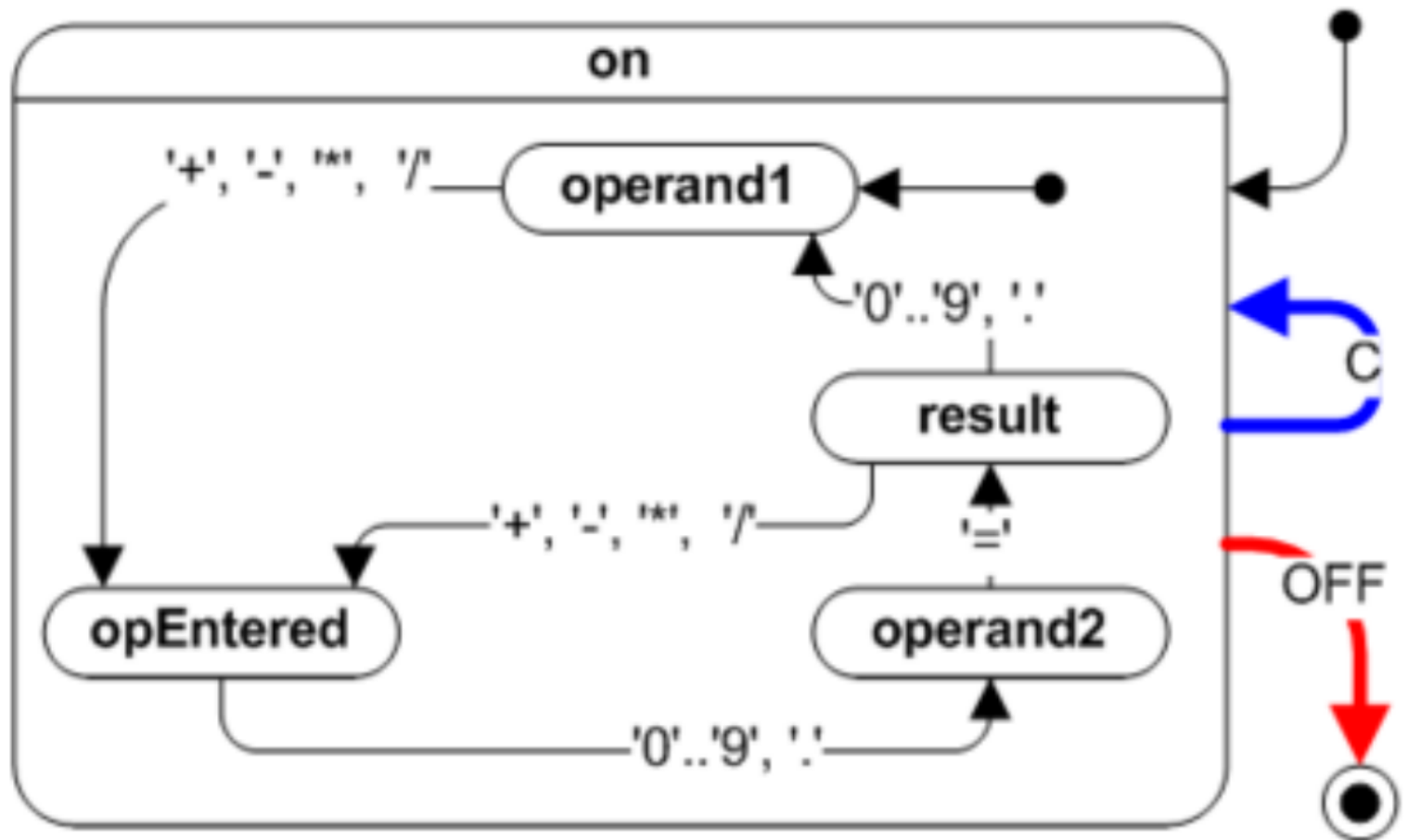
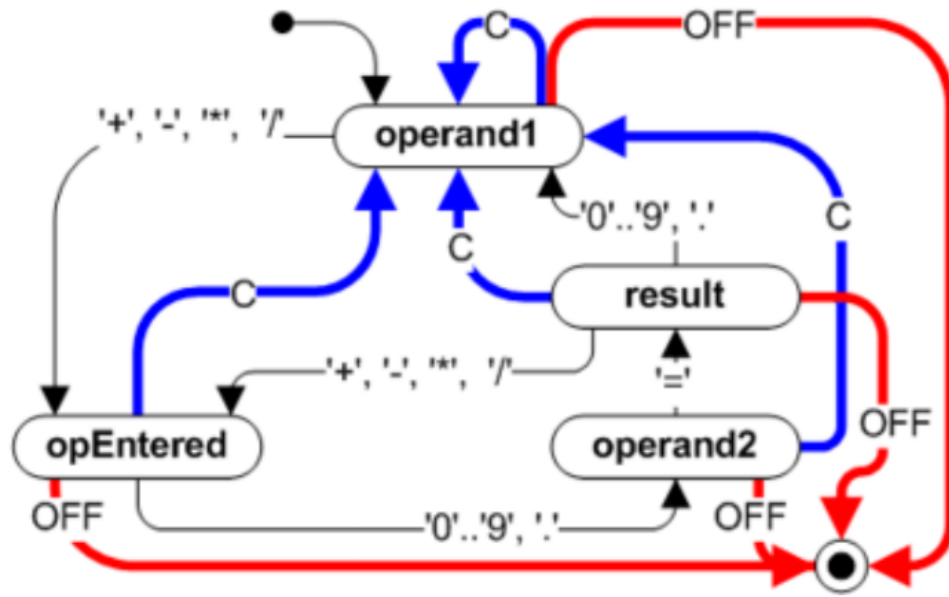
How do states exhibit in
the code itself and in a
working system?

A transition:
an abstraction of the
ability to get into a
certain state

Čo ak sa z mnohých stavov
možno dostať
do určitého stavu alebo
dokonca do viacerých stavov?







Can a system be in several states at once?

A combinatorial
explosion of states
and transitions can
be prevented with
composite states

States with no actions
constitute a protocol –
the behavior form

Actions define the behavior
content

Protocol state diagrams

vs.

behavior state diagrams

=

form

vs.

content

Detailed state diagrams
and activity diagrams
are similar

By defining actions, we uncover the operations that the system or its part should provide.

What's the difference compared to sequence diagrams?

States with no actions
make a protocol –
behavior form;
actions determine the
behavior content

A state:
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