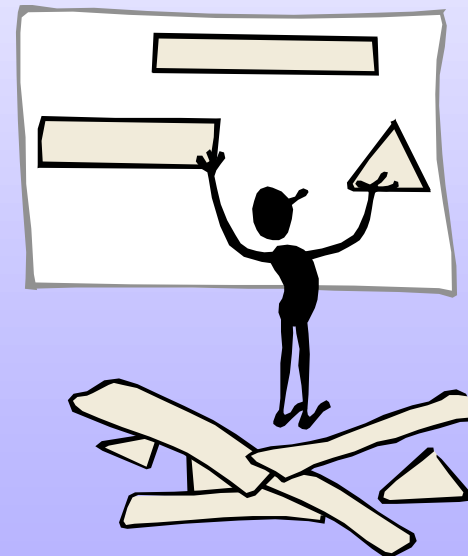


Data, Agents and Teams

Dr. Ralph Rönquist
Agent Oriented Software

Illustration

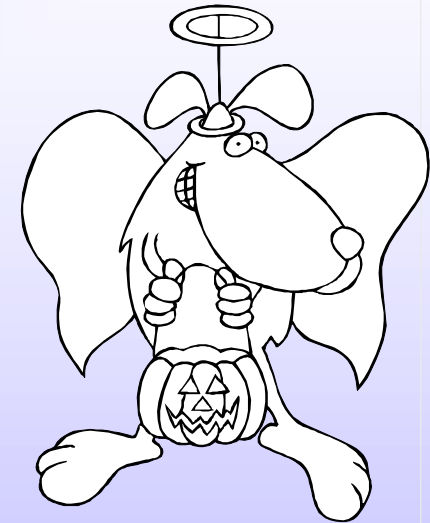
- ↑ A 'Greeter' agent
- ↑ Triggered by 'hearing' a 'hello' (event)
- ↑ Two plans, to respond:
 - ▣ "how are you" to a friend
 - ▣ "g'day mate" otherwise
 - then he becomes a friend
- ↑ Remembering 'Friends'



More Exactly ...

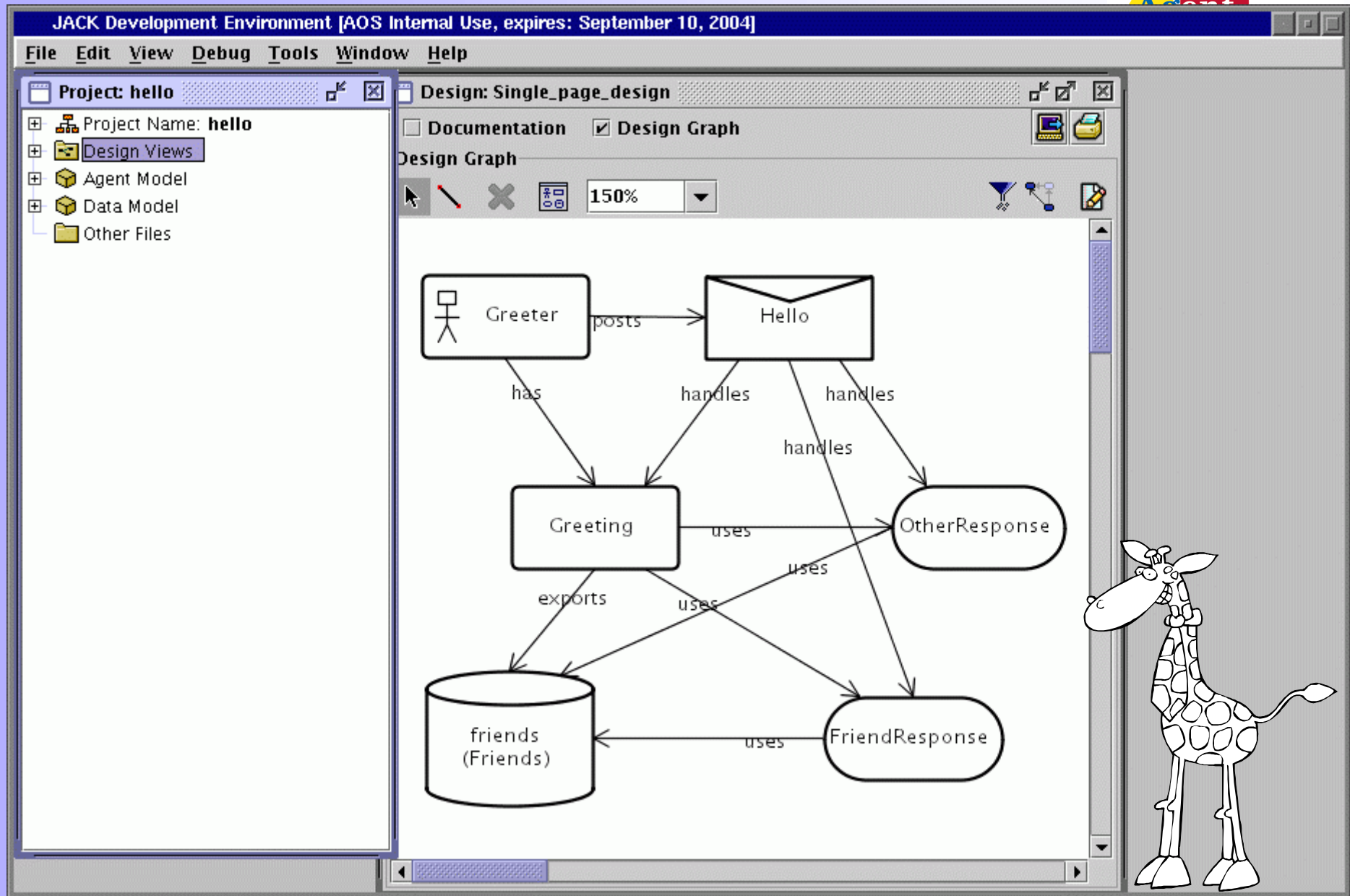
↑ Agent Model

- Greeter agent posts Hello event
- Greeter agent has Greeting capability
- Greeting capability handles Hello event
- Greeting capability uses FriendResponse plan
 - which responds “How are you” to a friend
- Greeting capability exports data friends of type Friends
- Greeting capability uses OtherResponse plan
 - which responds “G’day mate” and makes new friend
- FriendReponse plan handles Hello event
- FriendResponse plan uses data friends of type Friends
- OtherReponse plan handles Hello event
- OtherResponse plan uses data friends of type Friends



↑ Data Model

- beliefset Friends



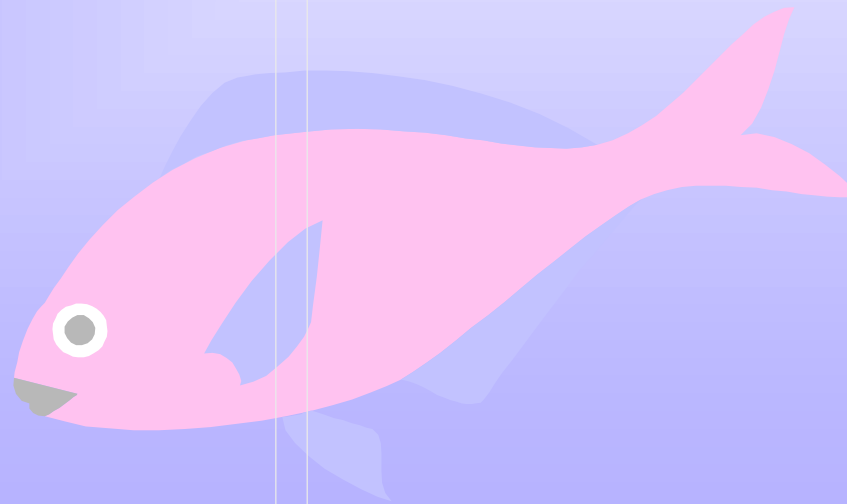
Model Elements

↑ Agent Model Elements

- ▣ event type 'Hello'
- ▣ agent type 'Greeter'
- ▣ capability type 'Greeting'
- ▣ plan type 'FriendResponse'
- ▣ plan type 'OtherResponse'
- ▣ named data 'friends' (of type 'Friends')

↑ Data Model Elements

- ▣ beliefset 'Friends'



Agent Model and Data Model

↑ Agent model

- reasoning
- computation
- behaviour
- 'doing'



↑ Agent model designs

- presenting reasoning structure, interfaces and hierarchies
- Prometheus Methodology
- JACK Developer Environment

↑ Data model

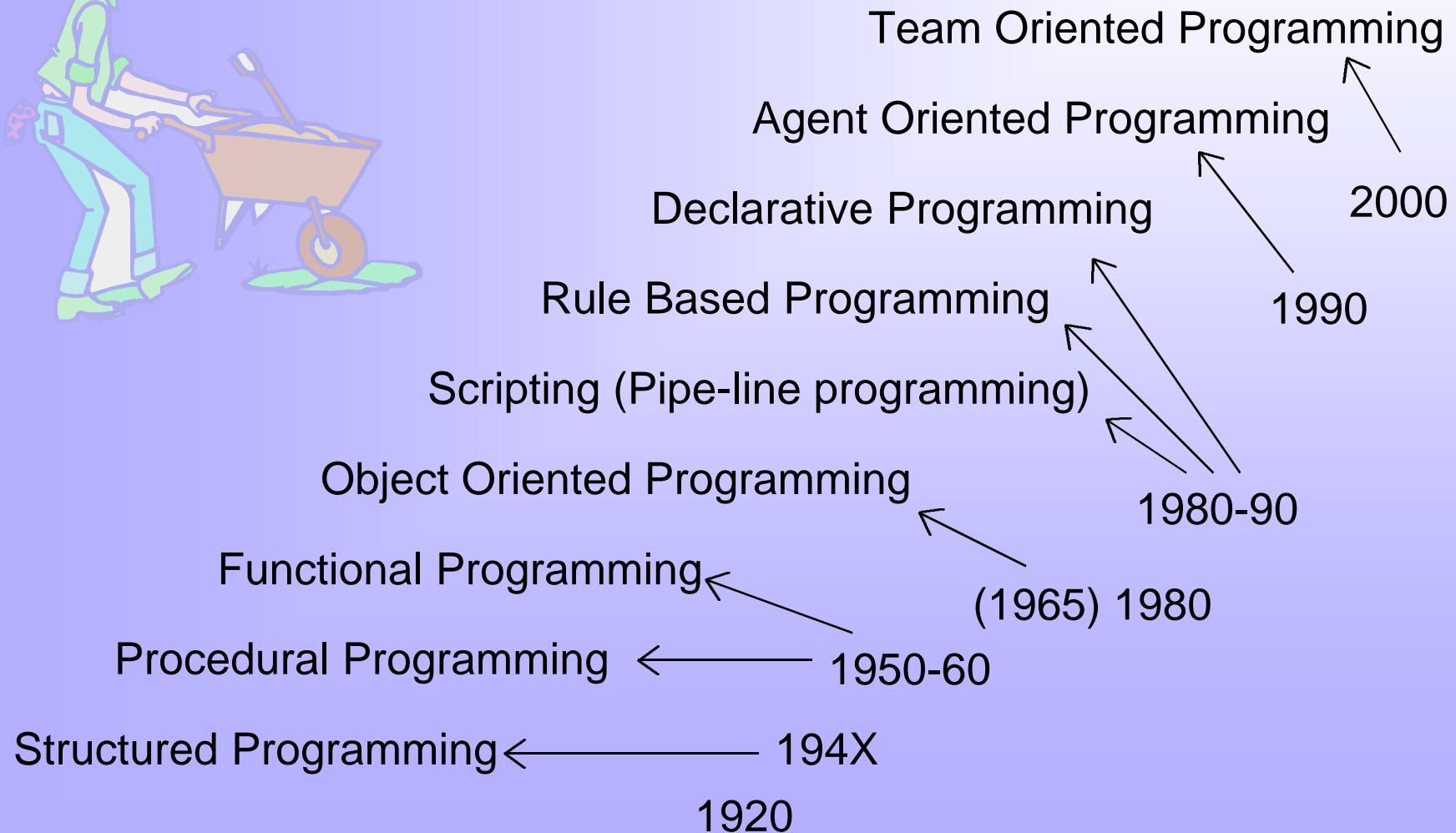
- belief formats
- representation
- constraints
- 'being'

↑ Data model designs

- presenting belief formats, patterns and consistency constraints
- UML, {relational}
- OO tools, E-R tools

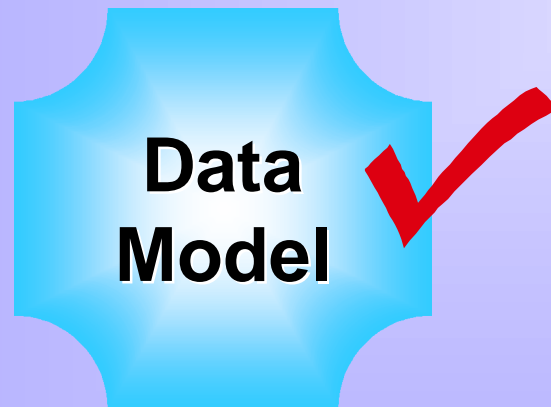
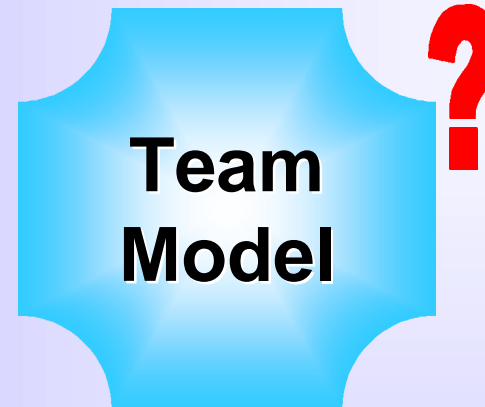


Timeline



Teams Dimension?

coordination



reasoning



belief forms