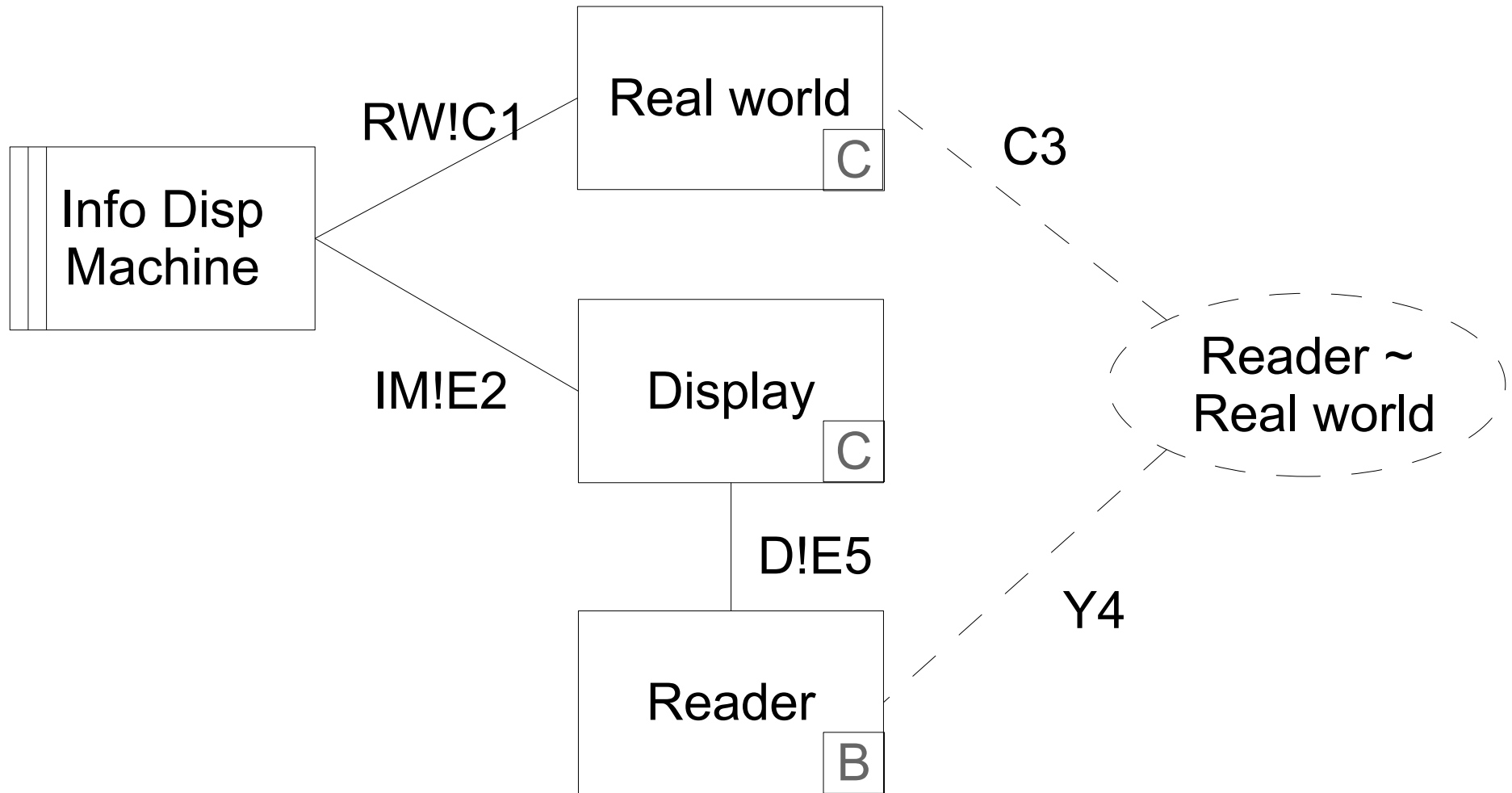




- **Exercises**
 - On the examples in previous lectures
 - Identifying problem frames in common problems
 - **Discussion**
 - Case study for the course
-
-

Recent experiences with (extended) Information Display



Recent experiences with (extended) Information Display

✈ Departures			
Time	Destination	Flight	Gate
13:37			
11:55	Pisa	FR 9924	
11:55	Prague	W6 2642	1
Instappen			
13:40	Wroclaw	W6 1826	4
Laatste oproep			
14:15	Faro	FR 7412	
14:30	Katowice	W6 1072	
14:35	Rome CIA	FR 9616	
15:15	Malaga	HV 6653	
16:20	Stockholm NYO	FR 1823	
16:20	Dublin	FR 1965	
16:40	Innsbruck	HV 6685	
17:30	Tenerife	HV 215	

gemaakt+++
Welcome to Eindhoven Airport

- Reader ~ Real-world
- BUT:
 - The **real** information about the **real** world might be unknown to the system
 - Especially when presenting **estimates**, important to give ETA of the “next update”
 - Alert Reader when new data is displayed
 - Multiple channels

Recent experiences with (extended) Information Display

✈ Departures			
Time	Destination	Flight	Gate
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17:30	Tenerife	HV 215	

gemaakt+++
Welcome to Eindhoven Airport

- Conflicting goals among stakeholders
- Airport
 - Wants to provide information **for the efficient dispatch of passengers**
 - Wants to avoid protests and disturbances
- Passenger
 - Wants **accurate reporting** and honest forecasts

Recent experiences with (extended) Information Display

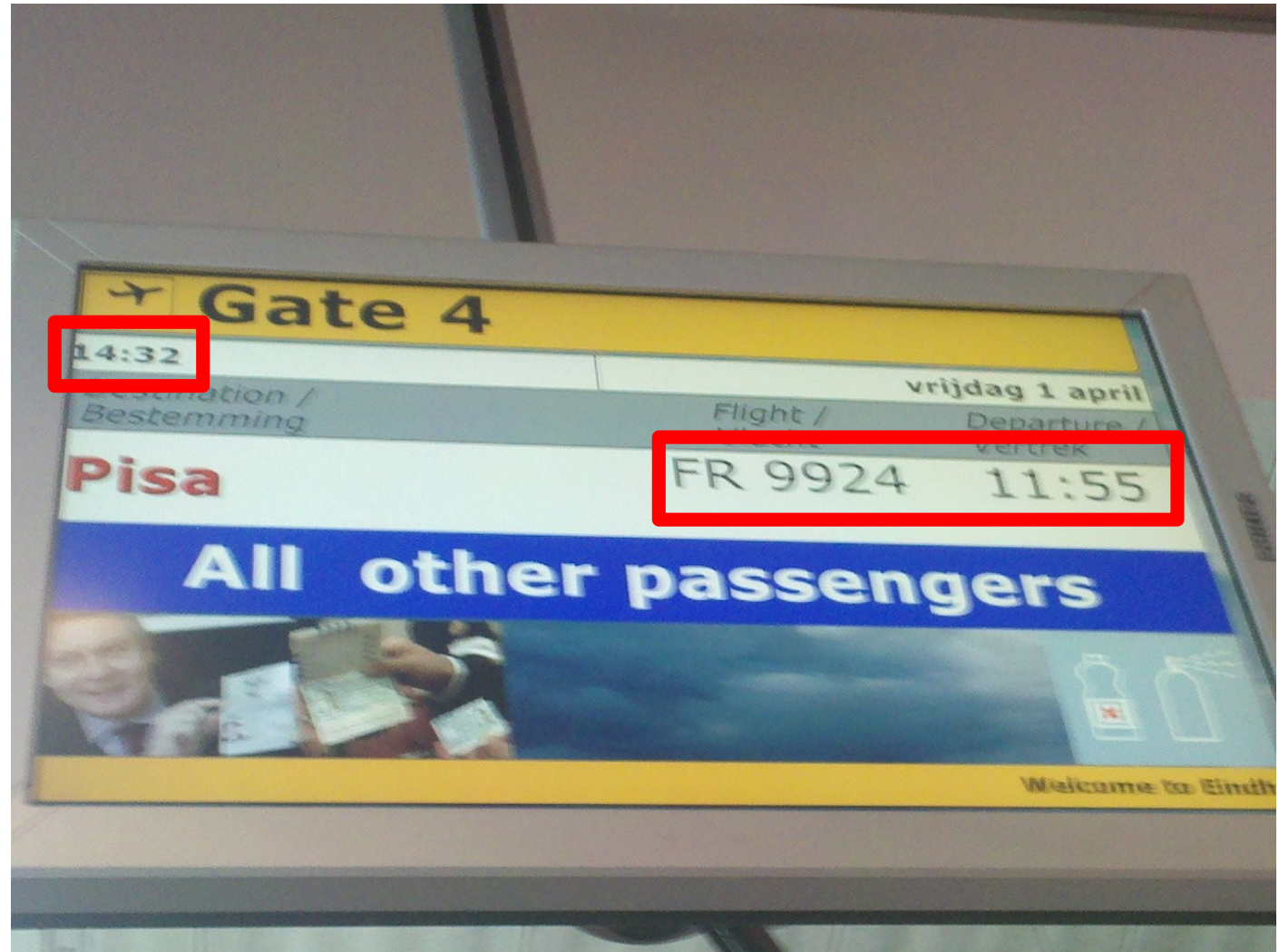
✈ Departures			
Time	Destination	Flight	Gate
13:37			vrijdag 1 april
11:55	Pisa	FR 9924	
11:55	Prague	W6 2642	1
Instappen			
13:40	Wroclaw	W6 1826	4
Laatste oproep			
14:15	Faro	FR 7412	
14:30	Katowice	W6 1072	
14:35	Rome CIA	FR 9616	
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16:40	Innsbruck	HV 6685	
17:30	Tenerife	HV 215	

gemaakt+++
Welcome to Eindhoven Airport

- Conflicting goals among stakeholders
- Airline
 - Wants to avoid losing passengers to other means of travels (= **reassurance**)
 - Wants to **avoid penalties** linked to excessive delays
- Developer
 - Wants to accommodate **all** the various needs

Recent experiences with (extended) Information Display

- All parties comfortable with downplaying unpleasant info (**denial**)
- Compare: IE progress bar



Recent experiences with (extended) Information Display

ARRIVI - ARRIVALS					
NR	VOLO	ARRIVO DA	TIME	EXPECTED	NOTE REMARKS
RYANAIR	FR 9924	EINDHOVEN	13:45	16:52	ATTERRATO LANDED
RYANAIR	FR 1234	Frankfurt HAHN	15:10	17:02	ATTERRATO LANDED
Alitalia	AZ 7395	PARIS C. De Gaulle	17:25	17:23	
AIR PORTUGAL	TP 7166	ROMA Fiumicino	18:35		
RYANAIR	FR 9326	VALENCIA VALENCIA	19:25		
RYANAIR	FR 9382	SANTANDER	19:30		
RYANAIR	FR 9929	ALGHERO	19:30		
RYANAIR	FR 9932	CAGLIARI	19:45		

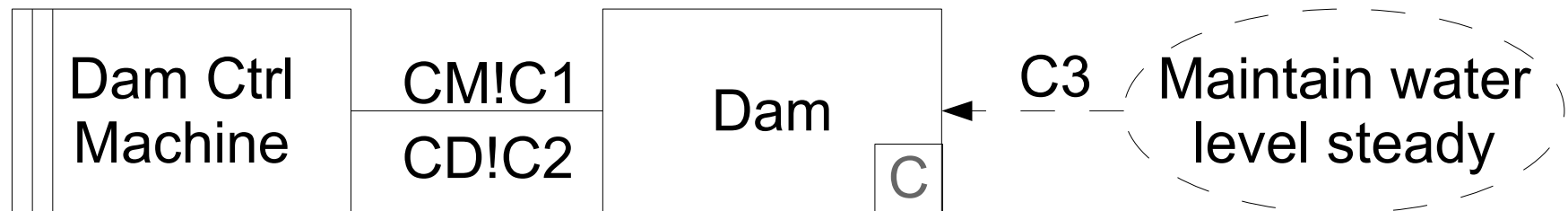
Galilei International Airport 01 aprile 2011 16.59 Pagina 1/2

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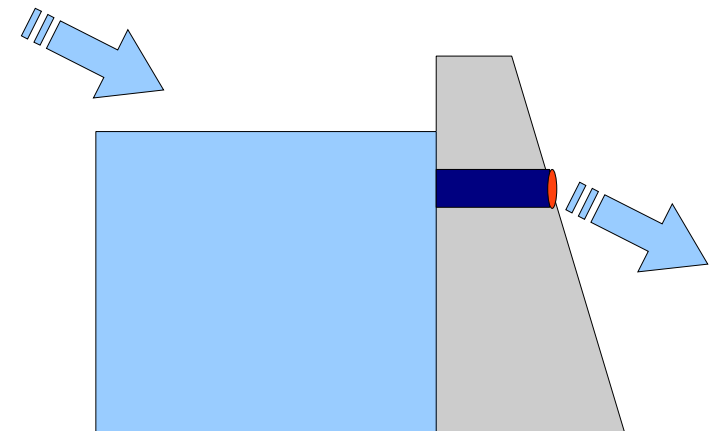
- Once “out of the system”, no need to downplay
- Passenger's goal somewhat satisfied
- *Home sweet home!*

Exercise (Controlled behaviour)

- Can you write formally S, D and R for the dam example and satisfy the concern?



C1: OpenGate, CloseGate
C2: SensorReading
C3: WaterLevel



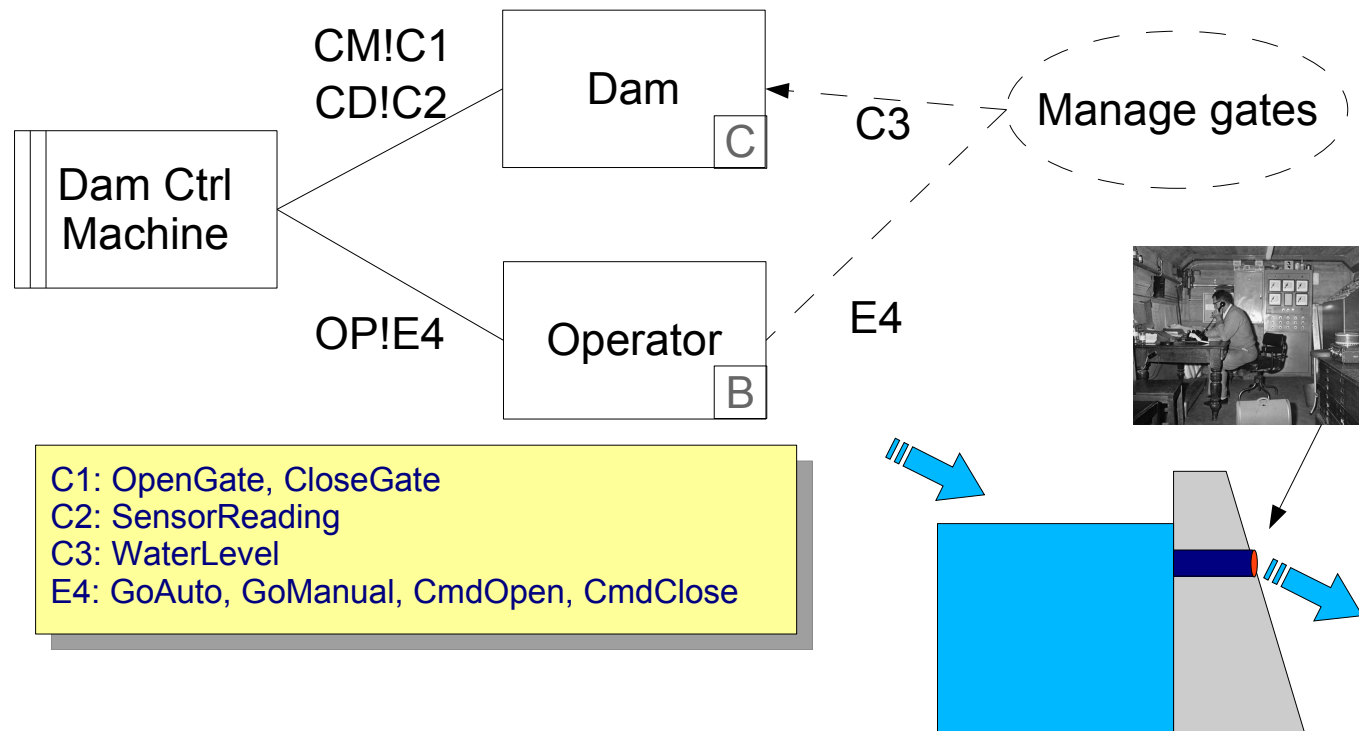
Exercise (Controlled behaviour)

- Assume now that DM is linked to the actual dam through a connection domain
- Identify properties that the connection domain must satisfy so that the correctness argument still holds
- Consider several common implementation technologies for the connection domain, and discuss their properties as above



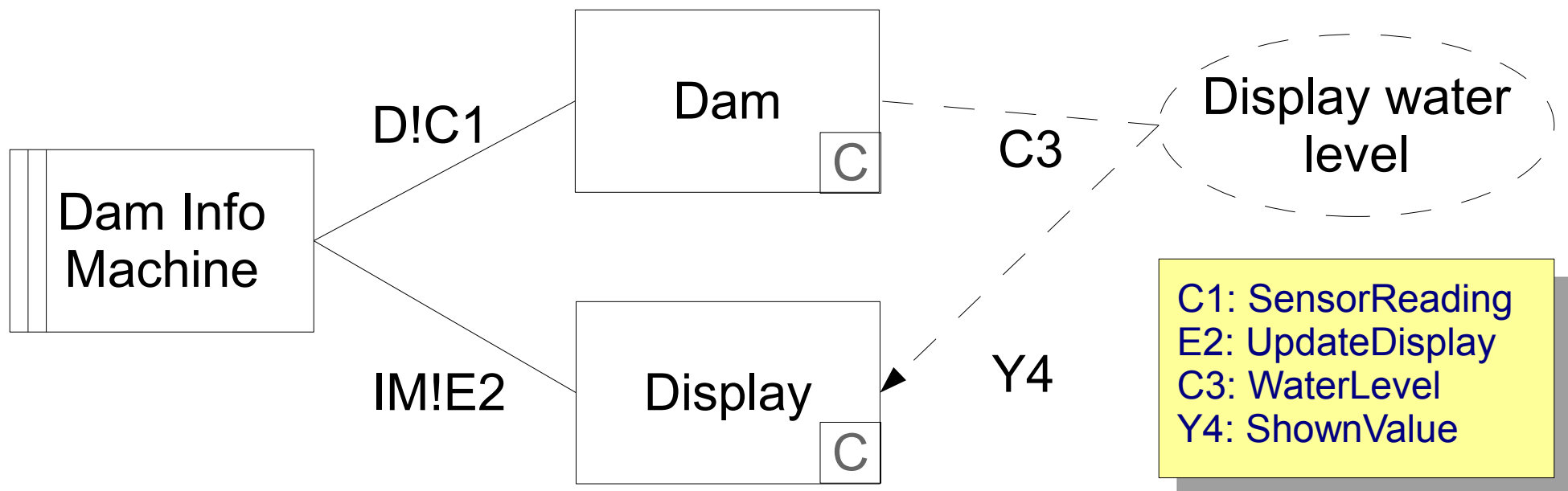
Exercise (Commanded behaviour)

- Can you write formally S, D and R for the dam example and satisfy the concern?
 - A little more complex, try it offline



Exercise (Information display)

- Describe and prove the correctness concern for the Dam display problem
 - You will need to write R, D and S
 - What can be learned about risks with the dam?



Exercise (Simple Workpiece vs. Commanded Behaviour)

- If Commanded Behaviour and Simple Workpiece are so similar, why are they two distinct frames?
 - Spot the differences!
-
-

Planning session

- Order of business
 - Choosing a suitable sample problem
 - Sketch a distributed application solution
 - Discuss implementation options
 - Select technologies
 - AoB
-
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