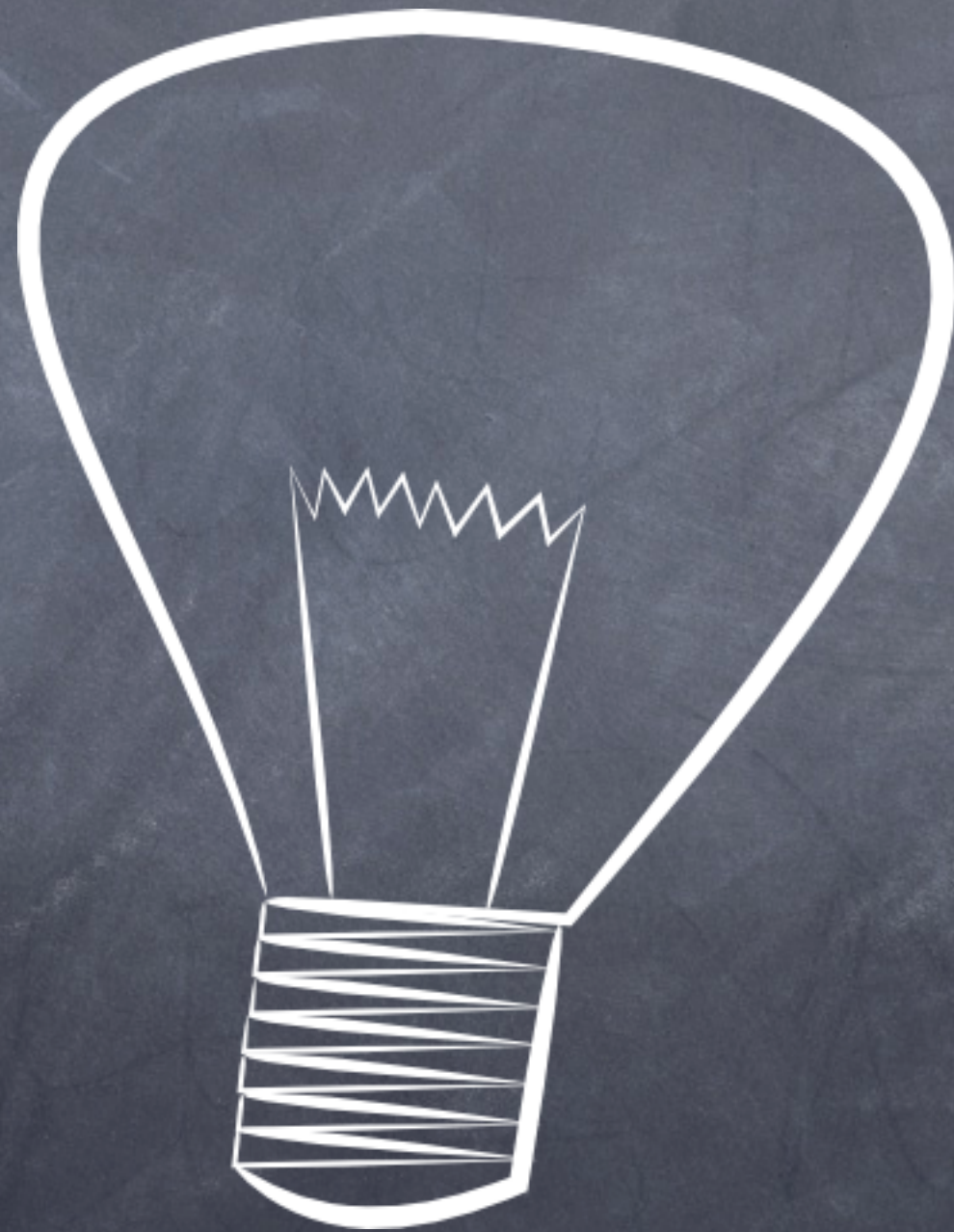
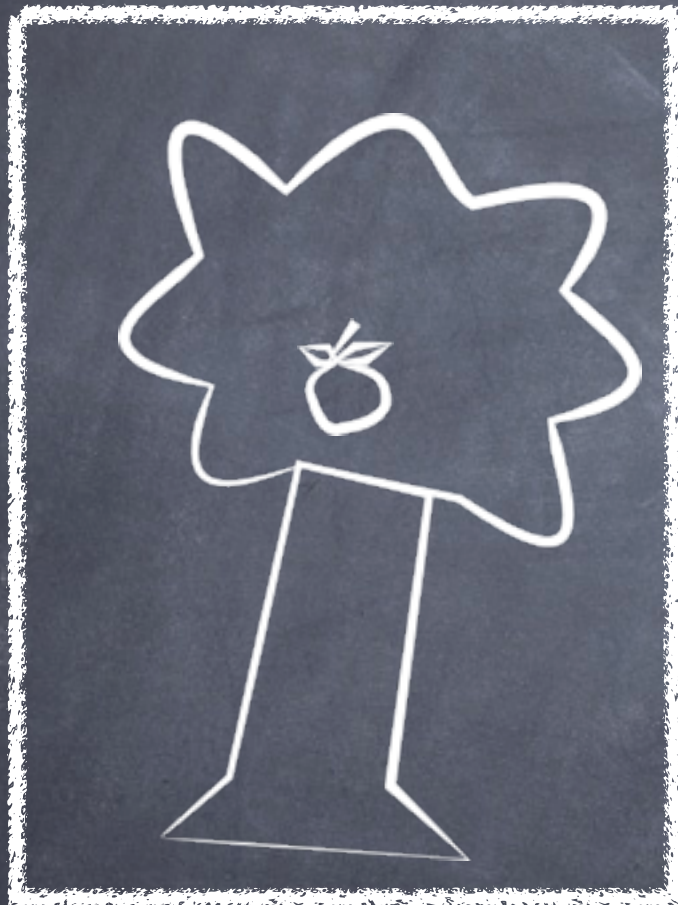


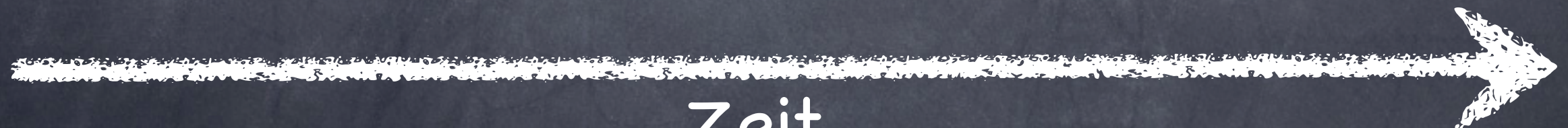
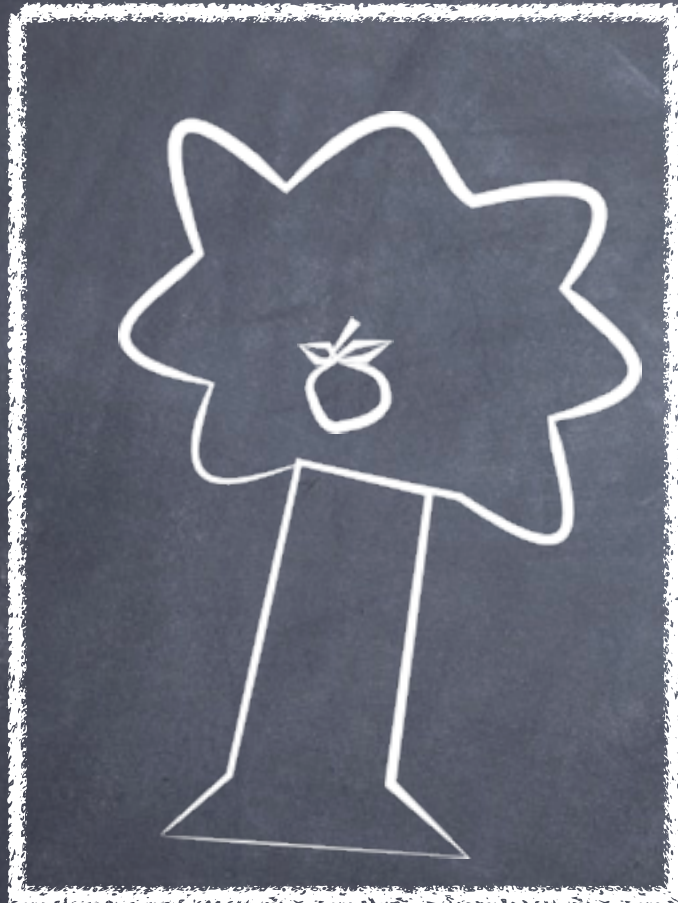
COMPLEX EVENT PROCESSING

Jochen Mader & Christoph Emmersberger









Zeit

Implementierungsmöglichkeiten von CEP

Implementierungsmöglichkeiten von CEP

Custom Lösungen

Implementierungsmöglichkeiten von CEP

Custom Lösungen

Datenbanken

Implementierungsmöglichkeiten von CEP

Custom Lösungen

Datenbanken

nicht-RETE-Algorithmen

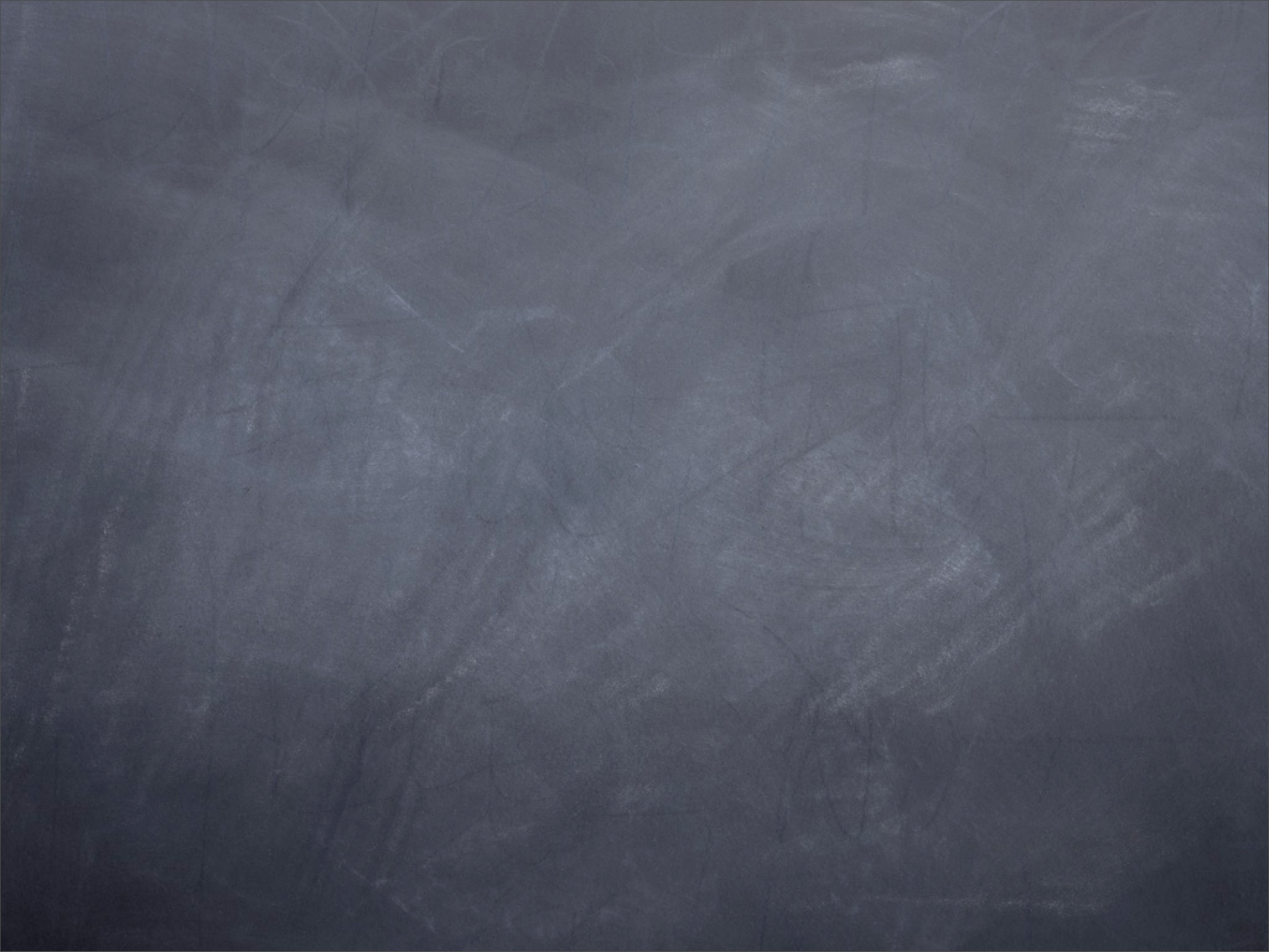
Implementierungsmöglichkeiten von CEP

Custom Lösungen

Datenbanken

nicht-RETE-Algorithmen

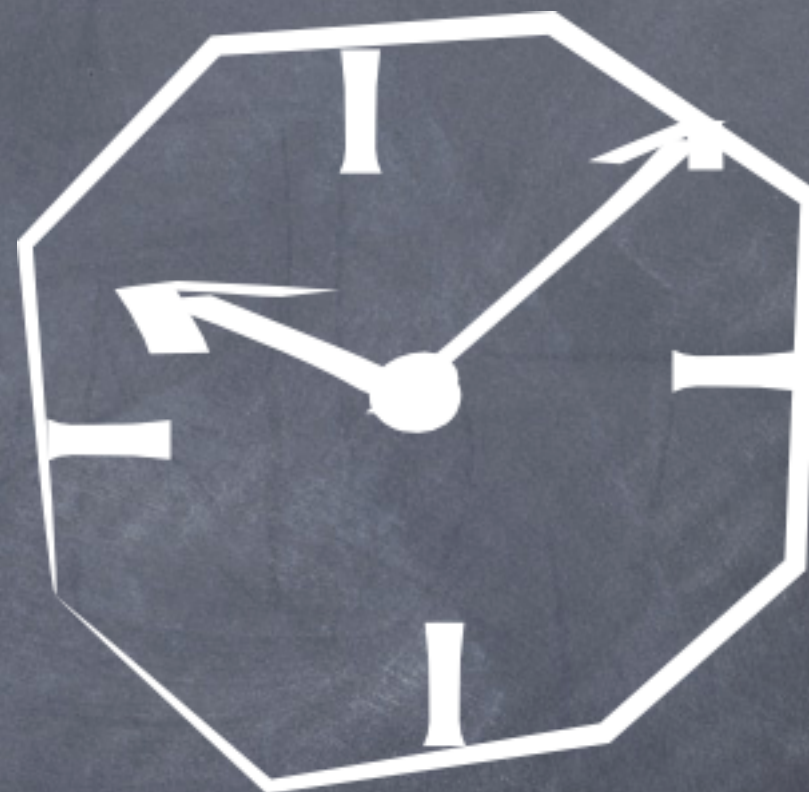
RETE-basierte Lösungen





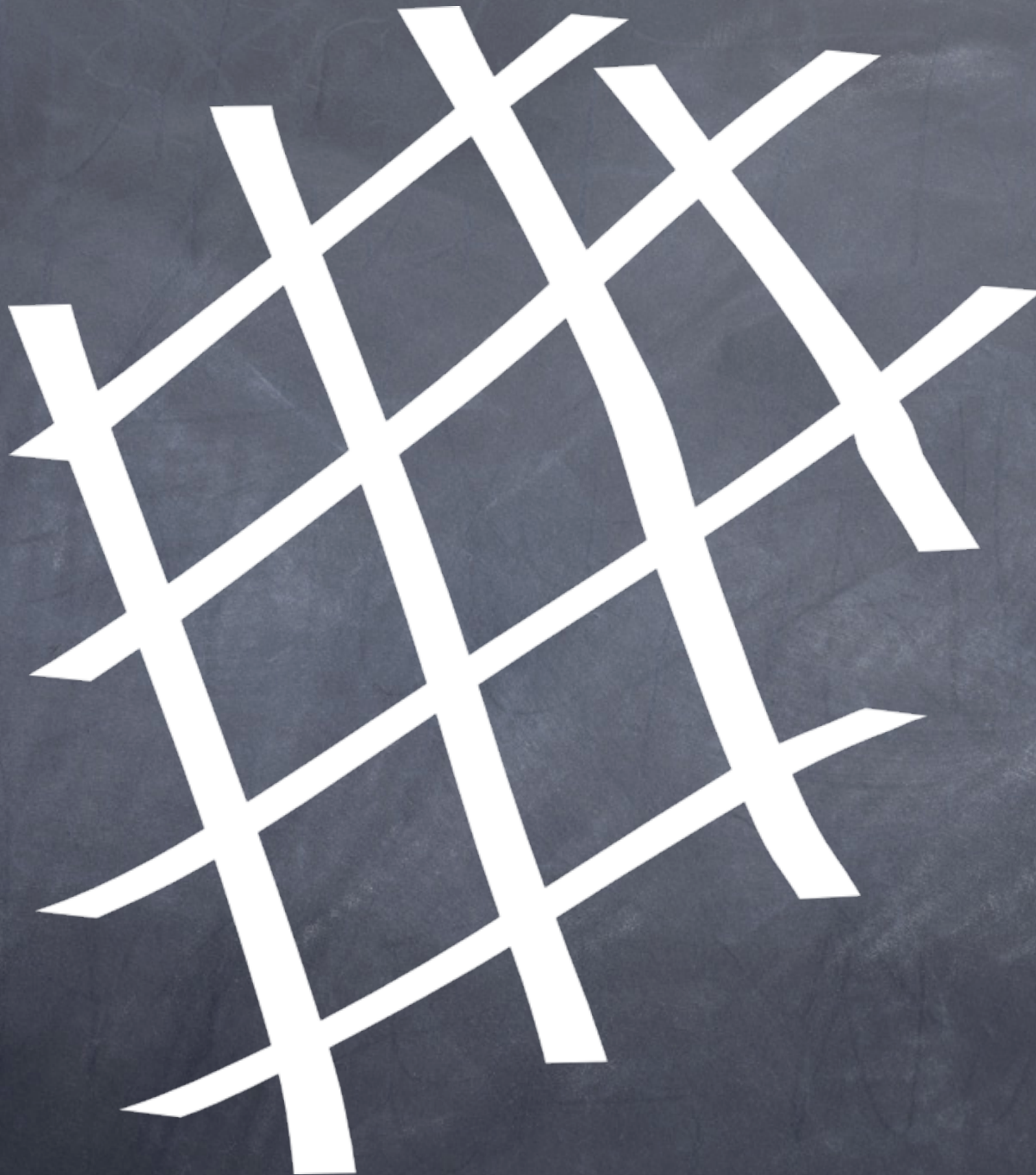


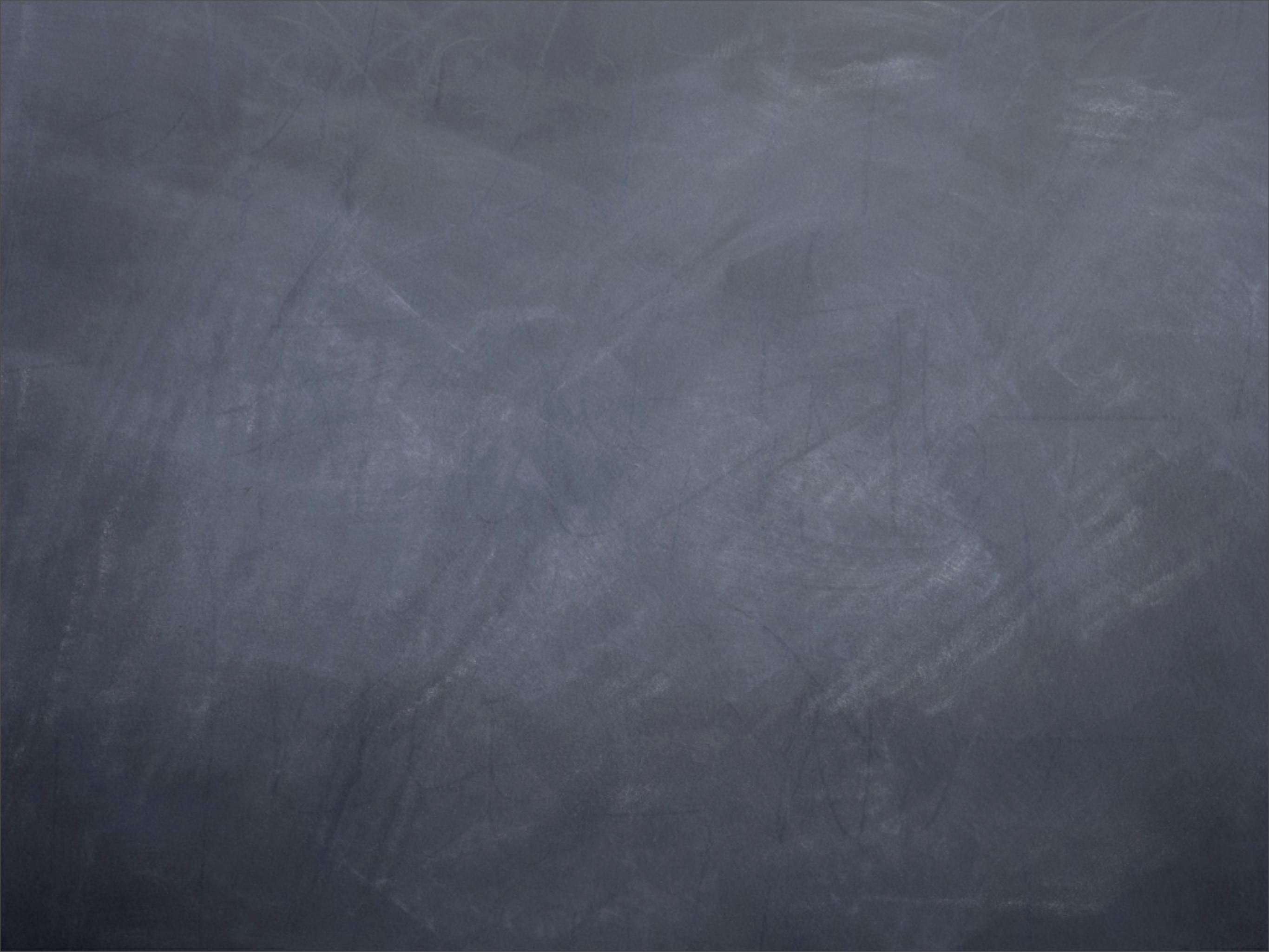
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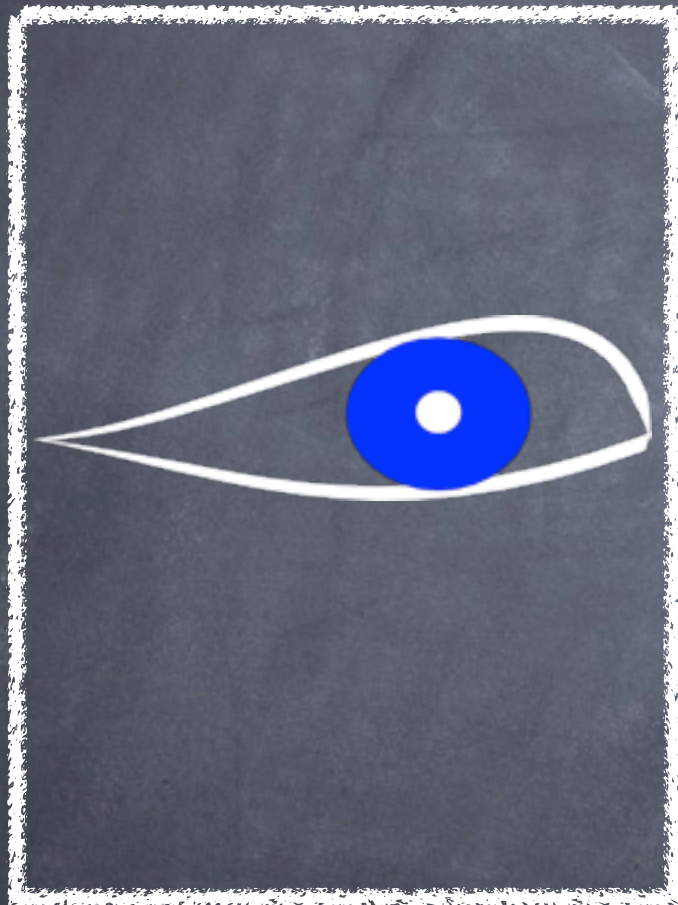




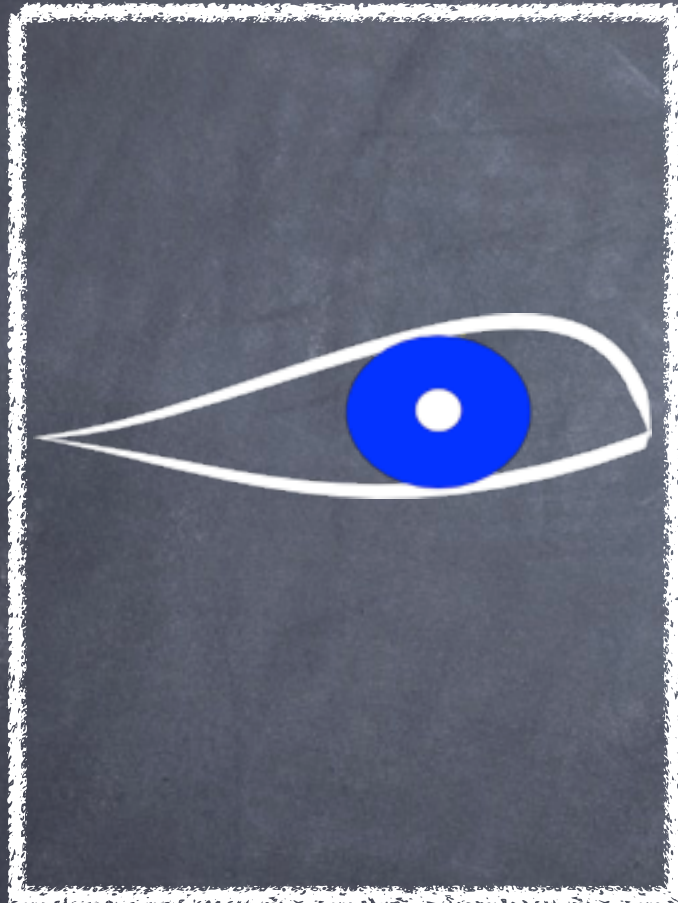








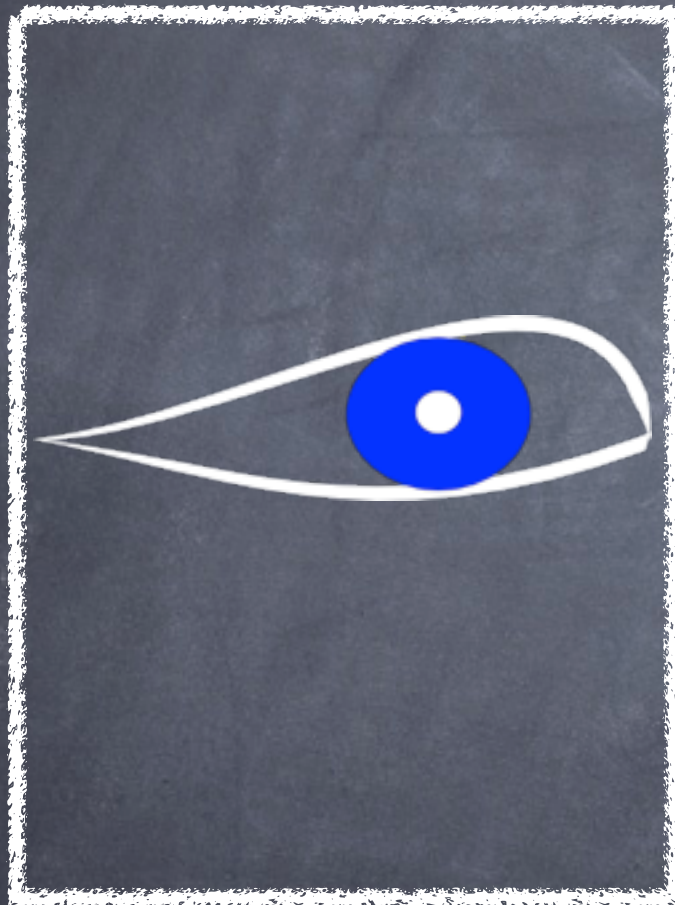
erkennen



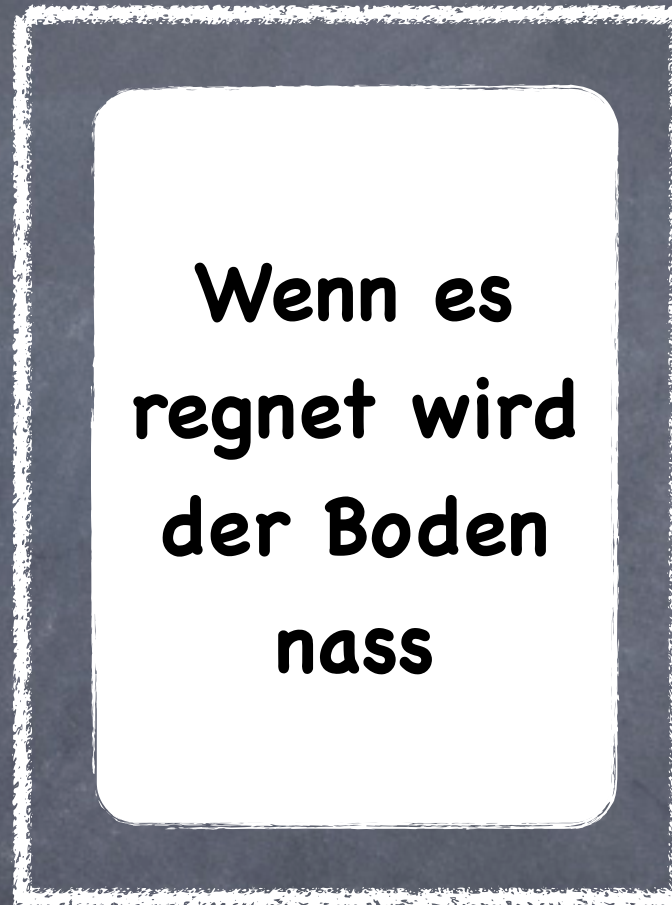
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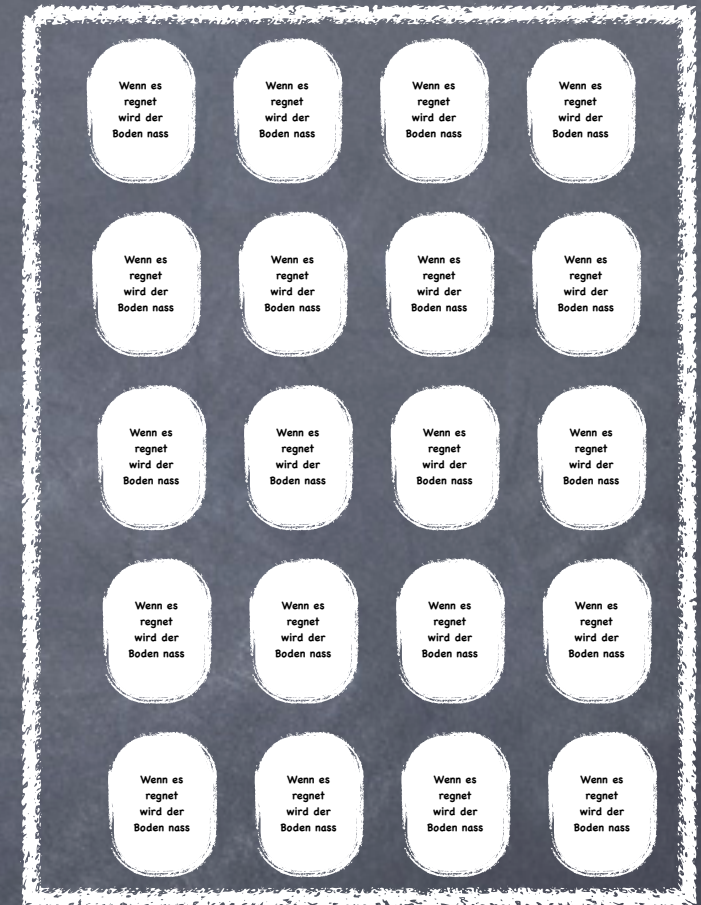
archivieren



erkennen

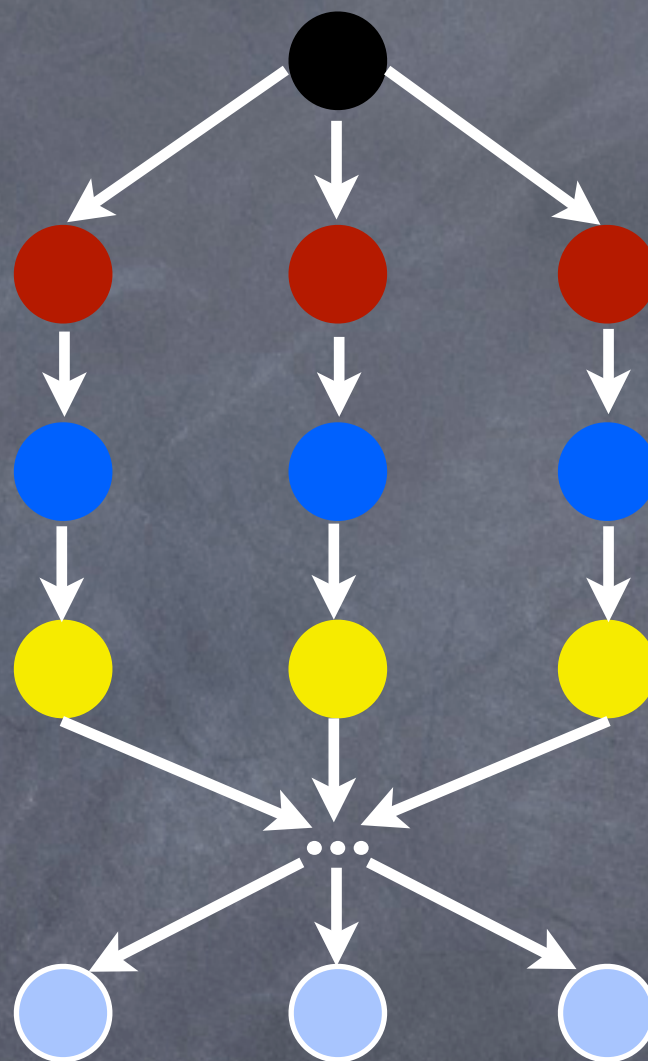


archivieren



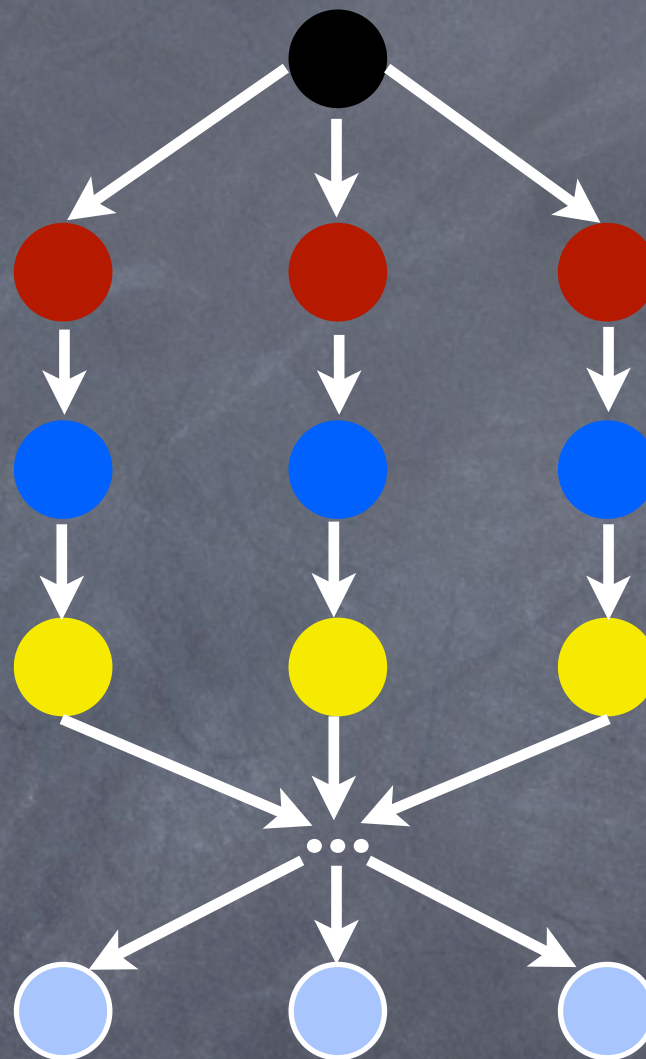
auswerten

RETE

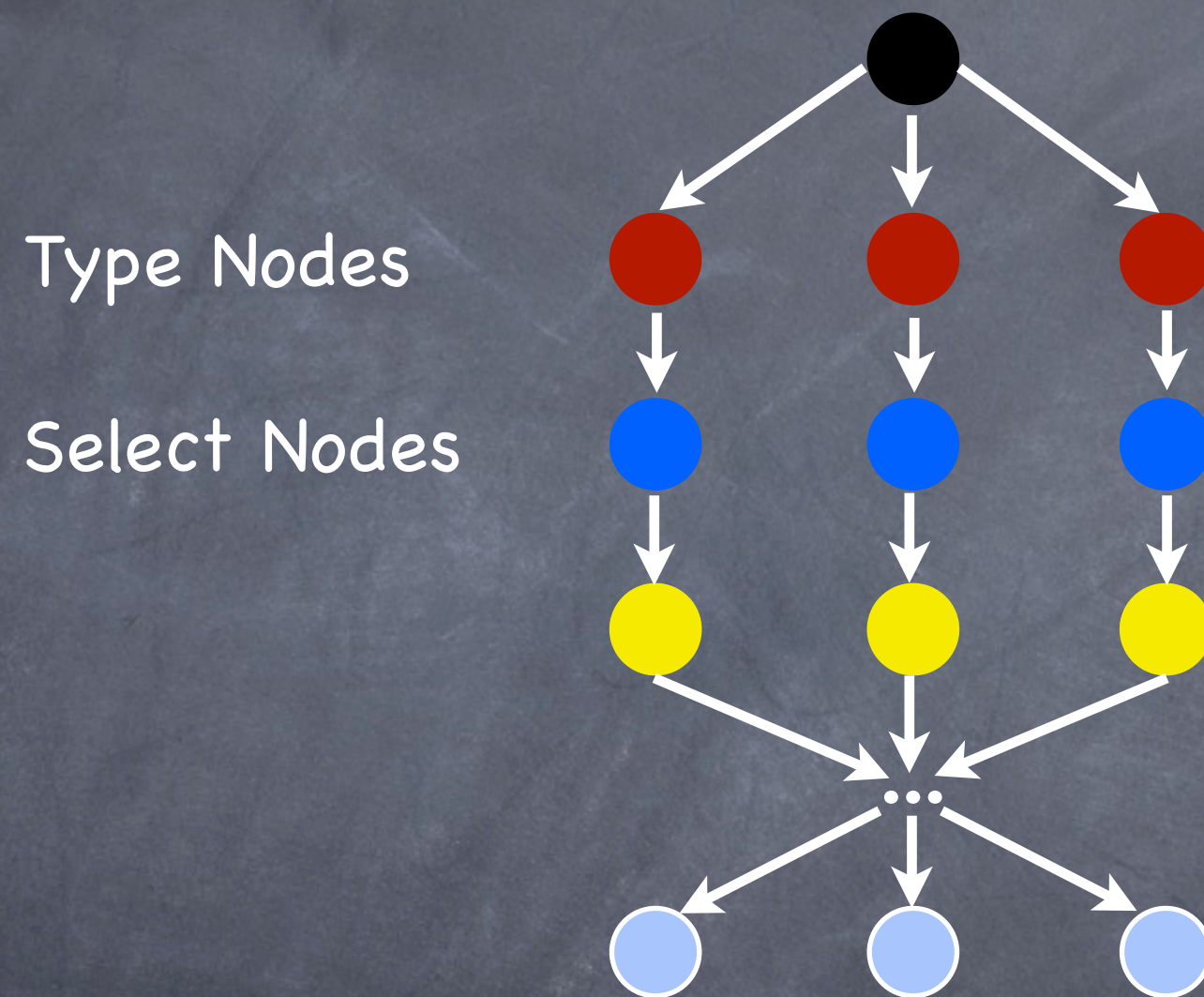


RETE

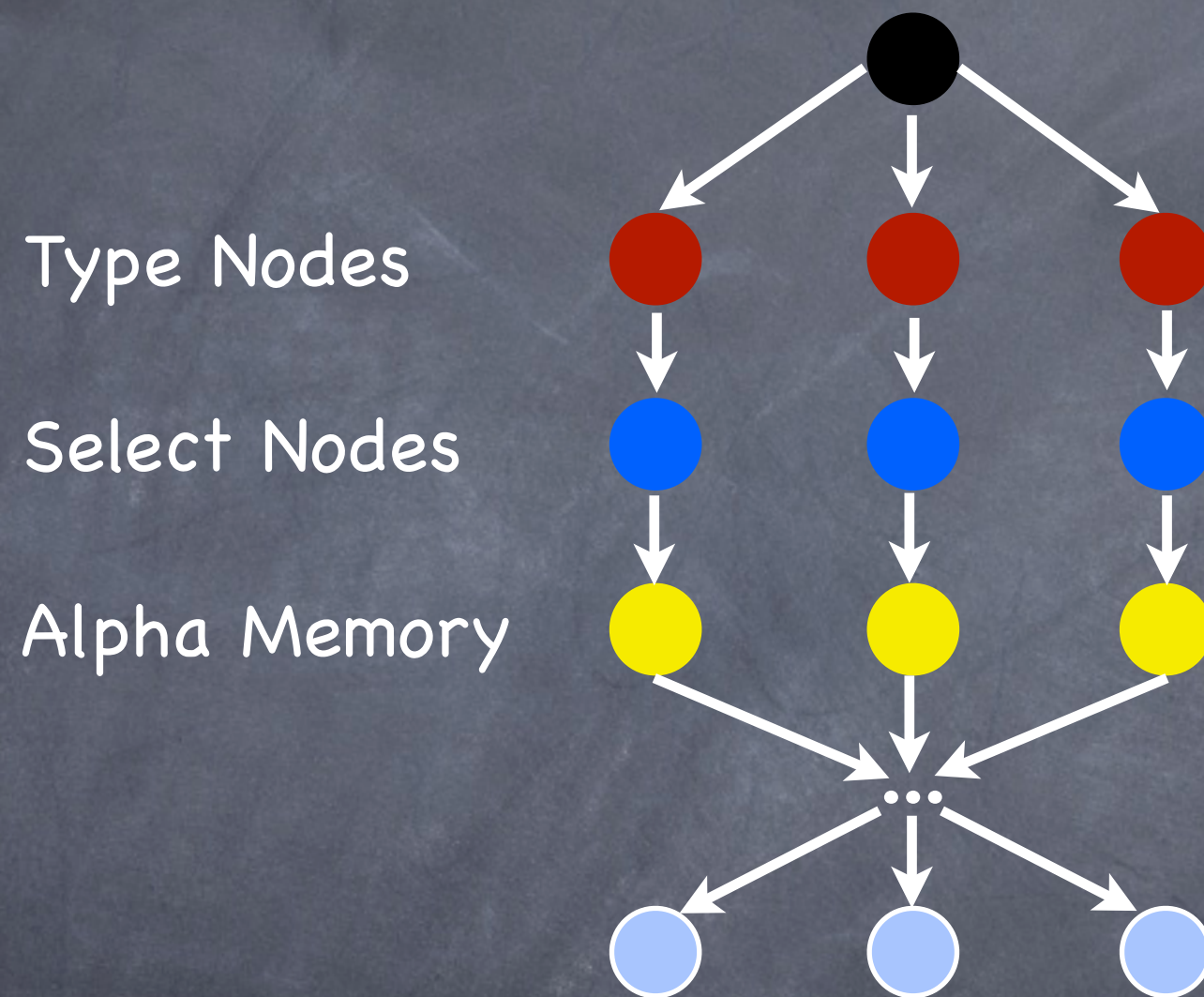
Type Nodes



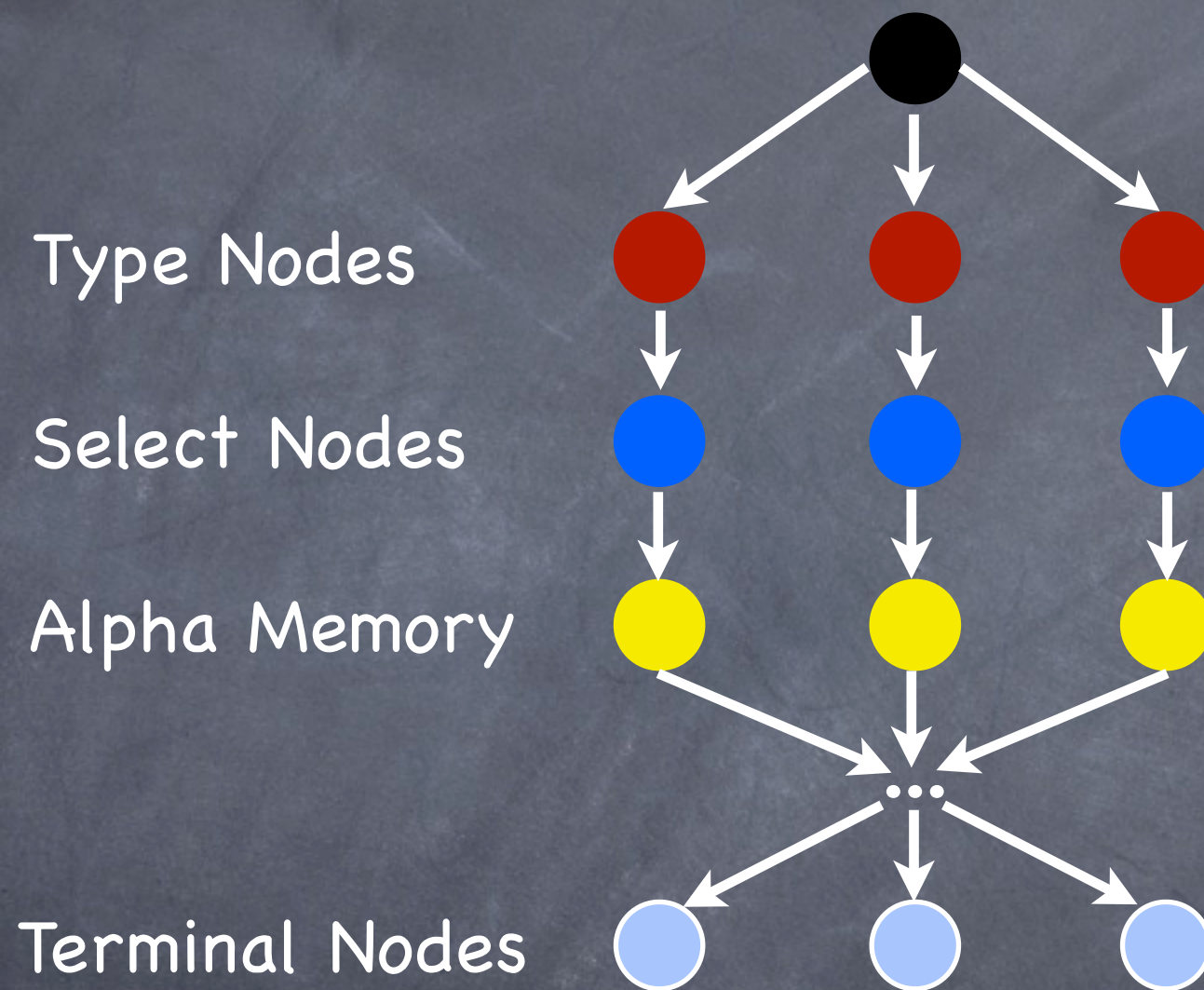
RETE



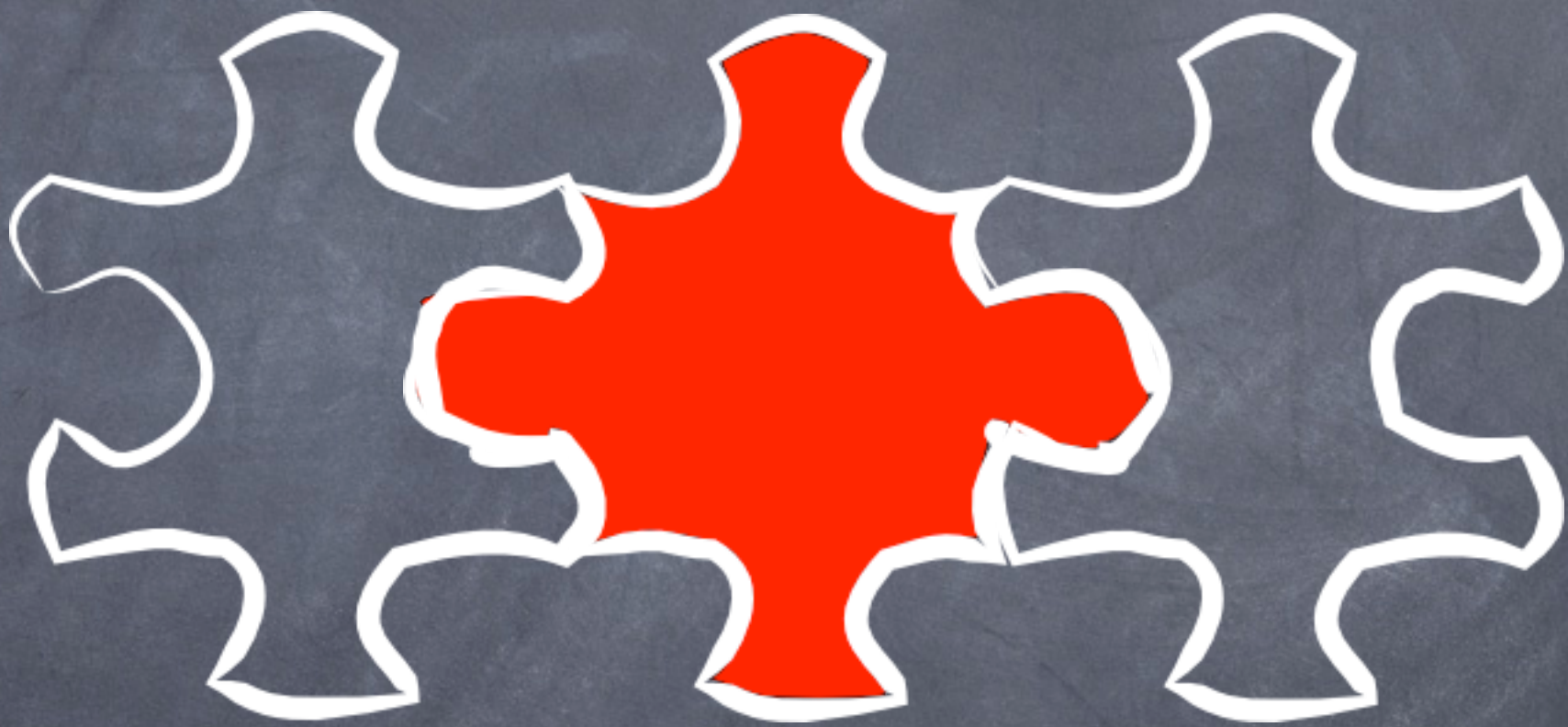
RETE

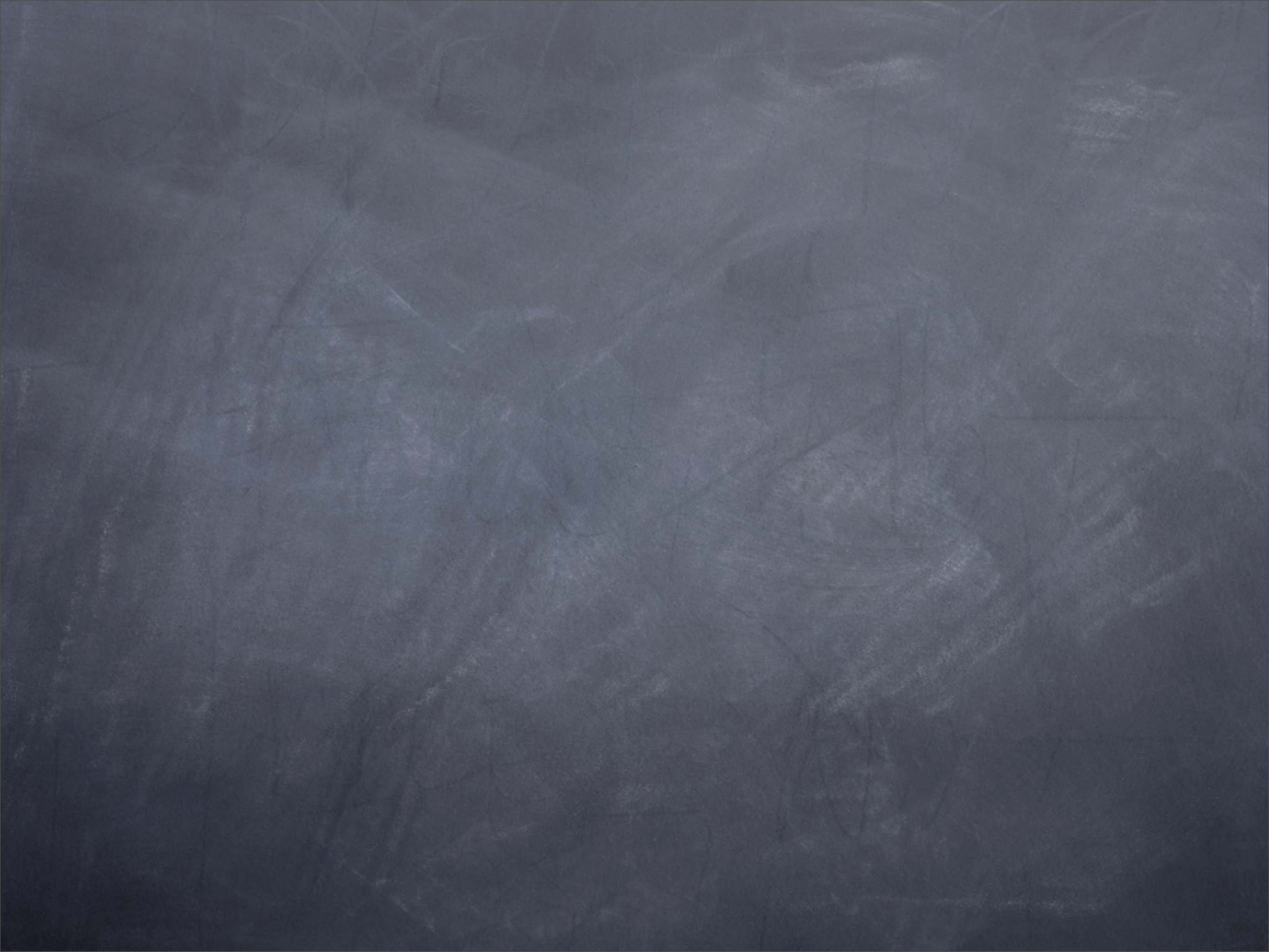


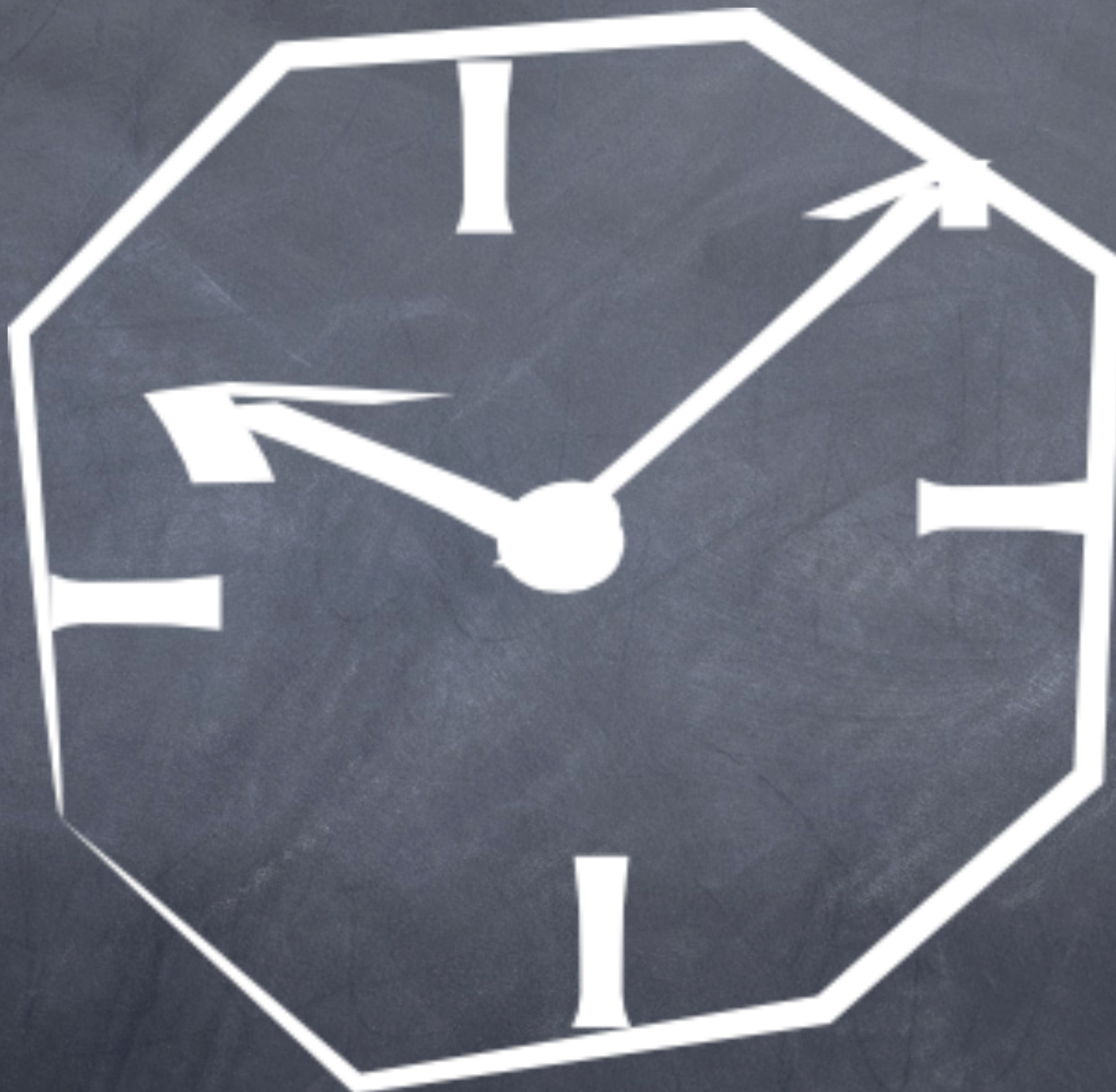
RETE





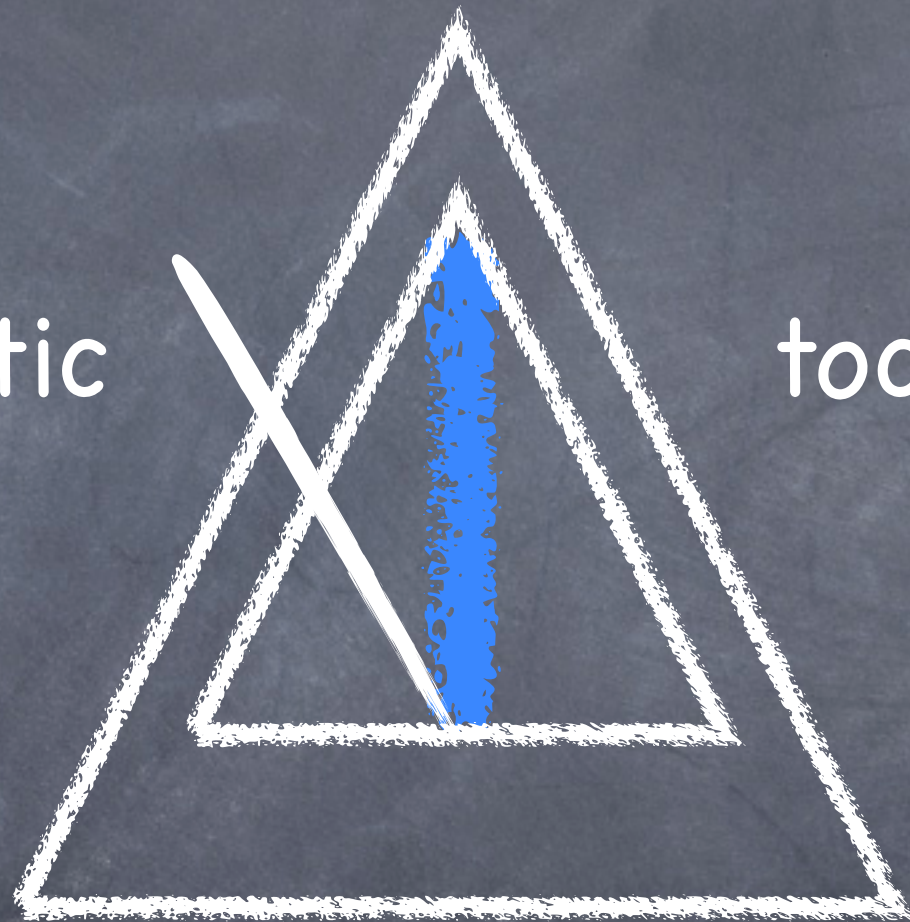








tic



toc

Begrifflichkeiten

Low Level Events



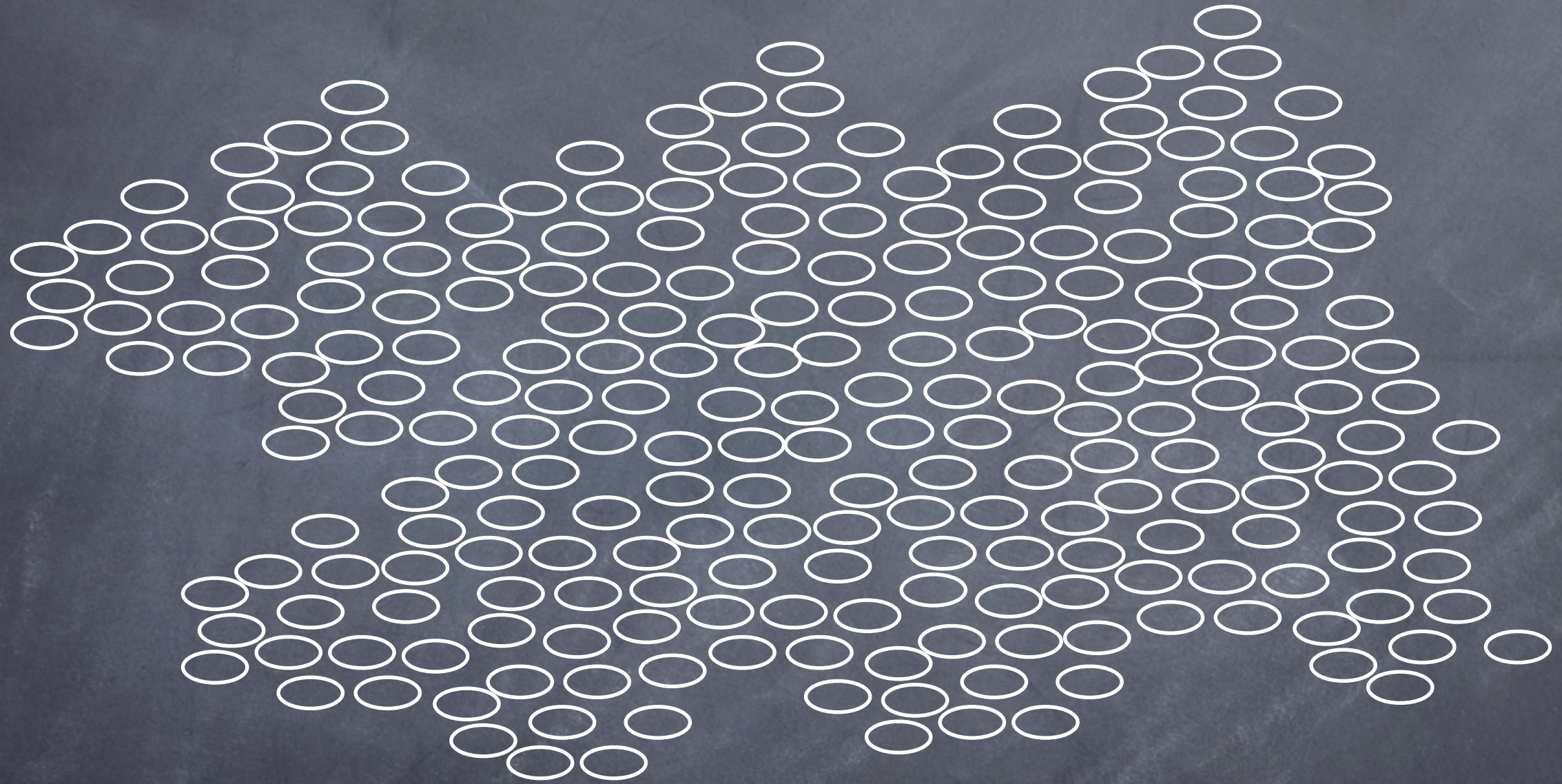
java.lang.IllegalStateException: BeanFactory not initialized or already closed -
call 'refresh' before accessing beans via the ApplicationContext

```
at org.springframework.context.support.AbstractRefreshableApplicationContext.getBeanFactory
at org.springframework.context.support.AbstractApplicationContext.getBeanNamesForType
at org.jbpm.pvm.internal.env.SpringContext.get(SpringContext.java:59)
at org.jbpm.pvm.internal.env.BasicEnvironment.get(BasicEnvironment.java:139)
at org.jbpm.pvm.internal.env.BasicEnvironment.get(BasicEnvironment.java:130)
at org.jbpm.pvm.internal.env.EnvironmentImpl.getFromCurrent(EnvironmentImpl.java:201)
at org.jbpm.pvm.internal.env.EnvironmentImpl.getFromCurrent(EnvironmentImpl.java:190)
at org.jbpm.pvm.internal.tx.SpringTransactionInterceptor.resolveTransactionManager
at org.jbpm.pvm.internal.tx.SpringTransactionInterceptor.execute
at org.jbpm.pvm.internal.svc.EnvironmentInterceptor.executeInNewEnvironment
at org.jbpm.pvm.internal.svc.EnvironmentInterceptor.execute(EnvironmentInterceptor.java:40)
at org.jbpm.pvm.internal.svc.RetryInterceptor.execute(RetryInterceptor.java:55)
at org.jbpm.pvm.internal.jobexecutor.DispatcherThread.acquireJobs(DispatcherThread.java:126)
at org.jbpm.pvm.internal.jobexecutor.DispatcherThread.run(DispatcherThread.java:67)
```

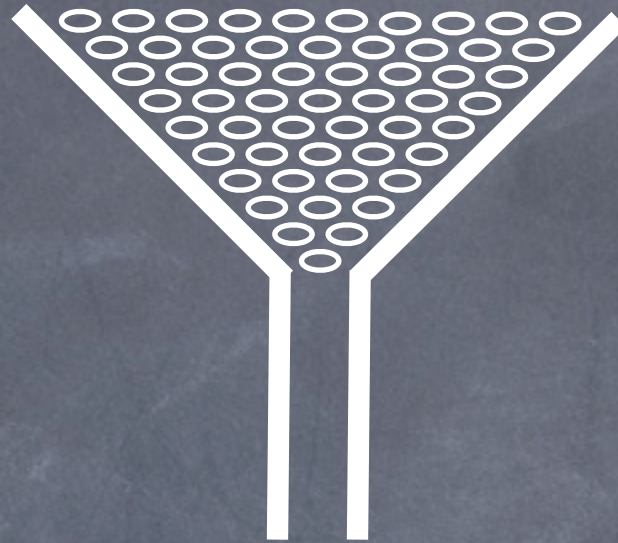
Low Level Events



Low Level Events



High Level Events



High Level Events



Event Streams



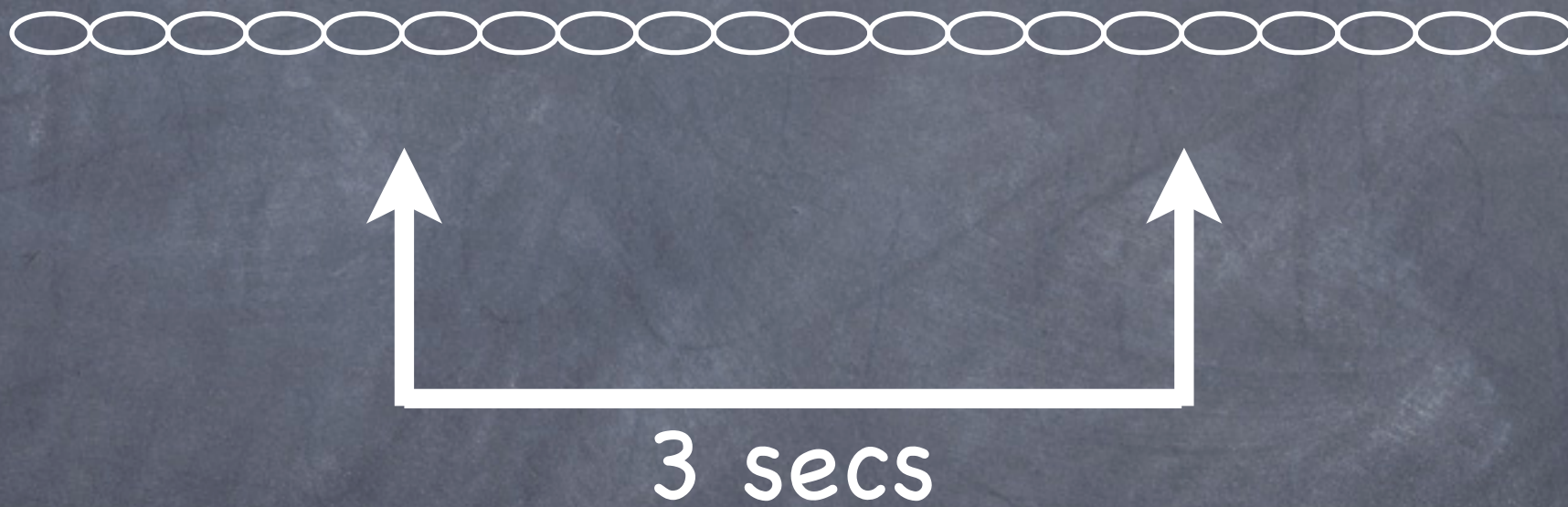
Event Streams



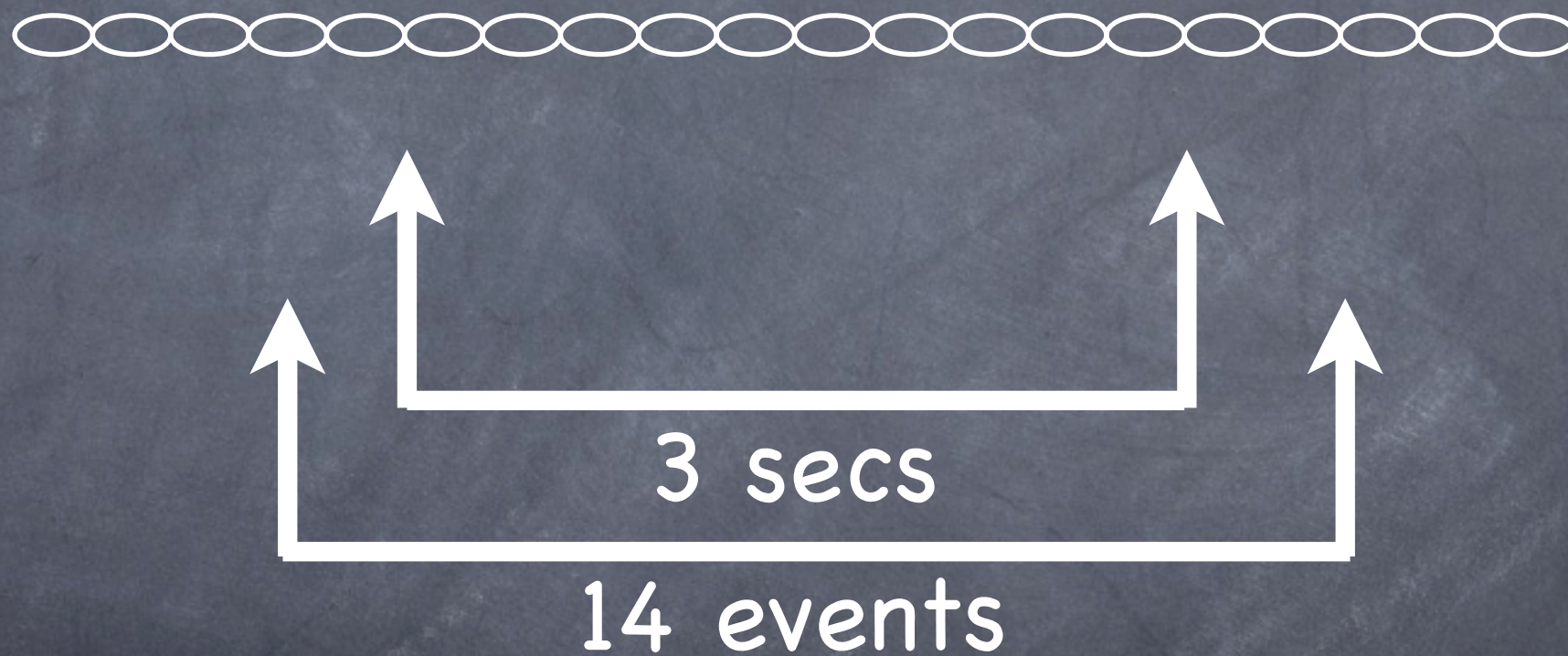
Event Windows



Event Windows



Event Windows



Event Lebenszyklus



Continuous Query

Continuous Query

```
select * from foo where bar=42
```

Continuous Query

```
select * from foo where bar=42
```



Continuous Query

```
select * from foo where bar=42
```



Continuous Query

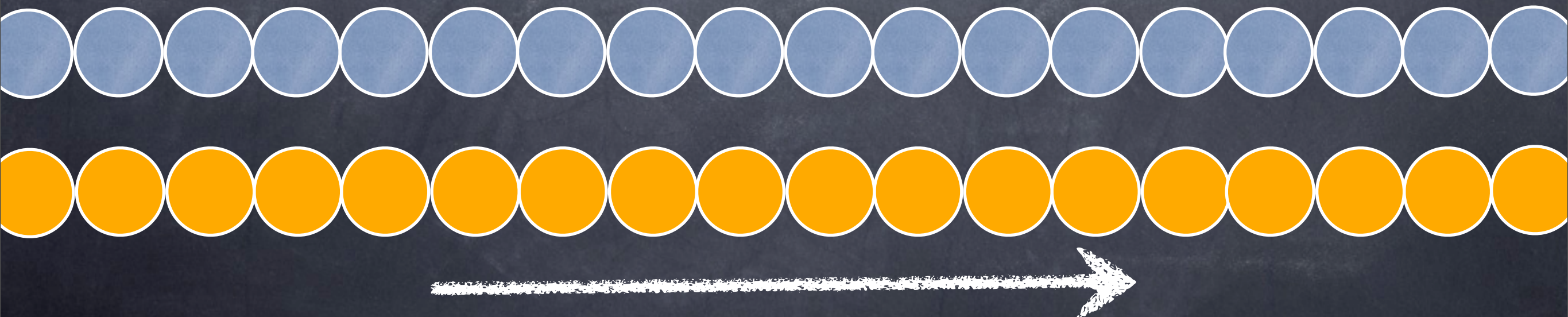
```
select * from foo where bar=42
```



Continuous Query

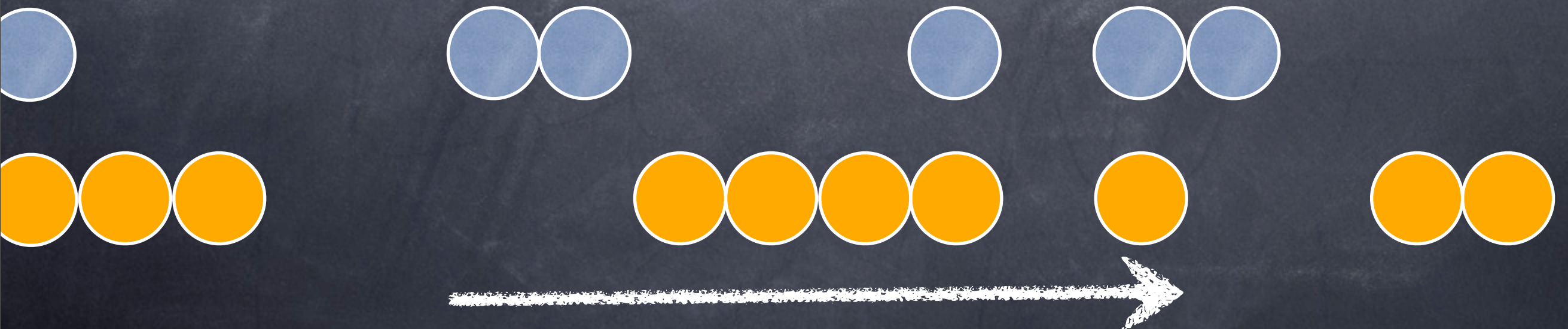
Continuous Query

```
select * from foo(bar=42)
```

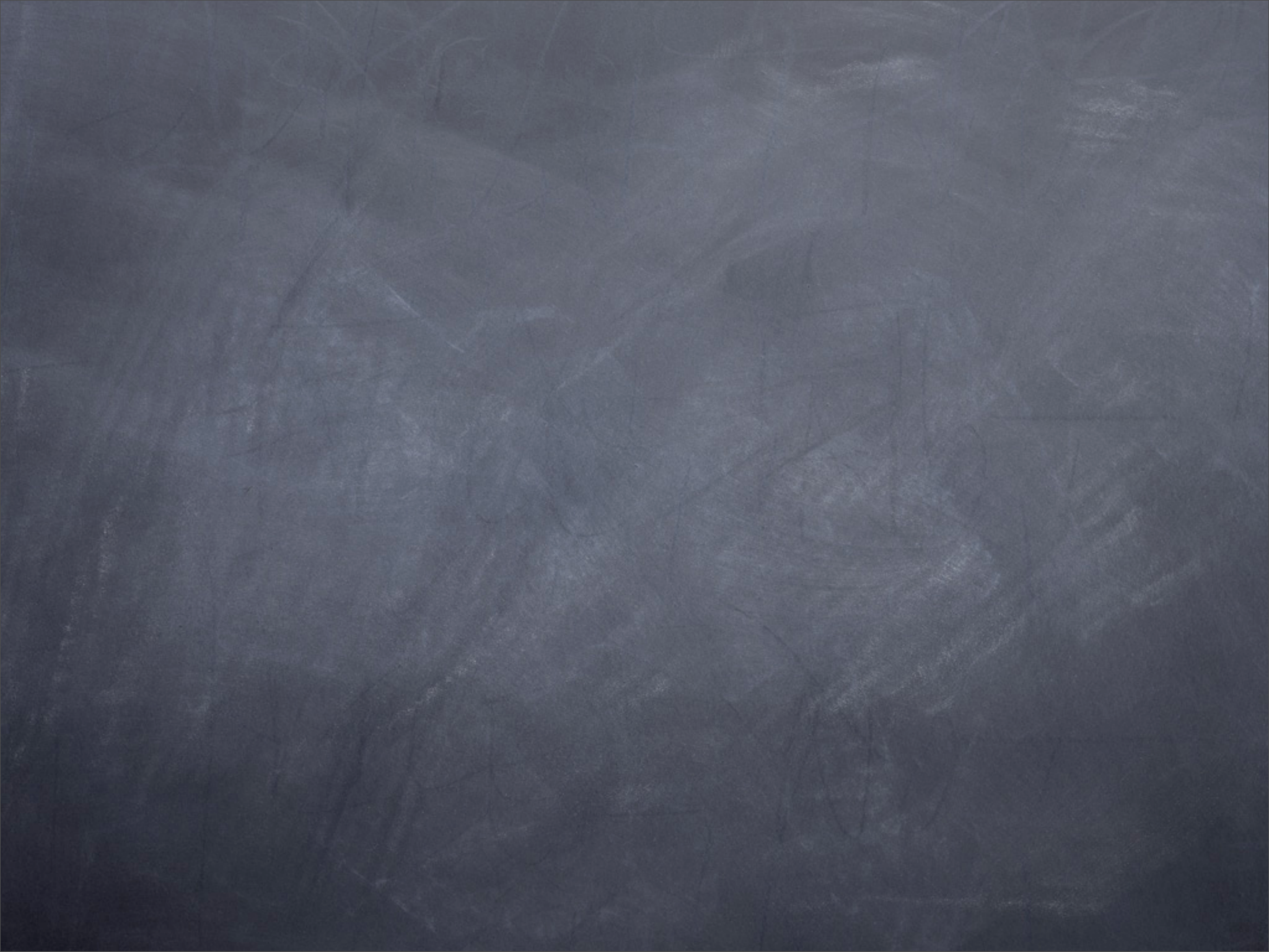


Continuous Query

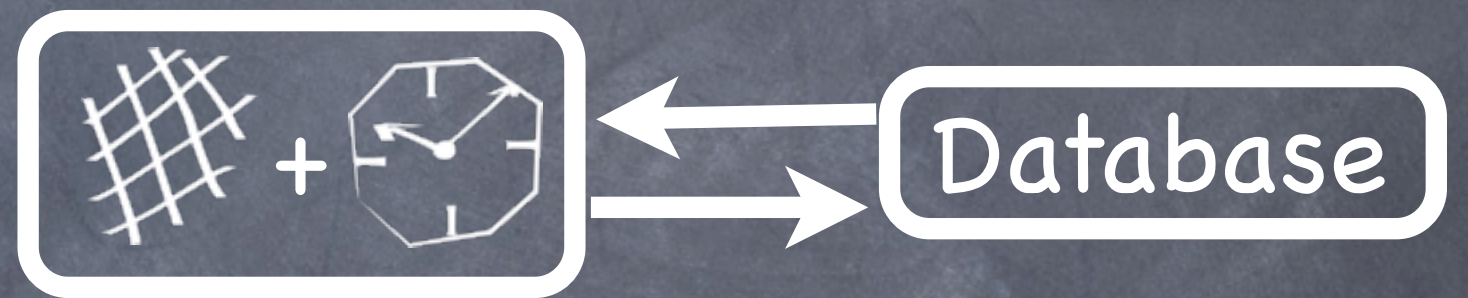
```
select * from foo(bar=42)
```



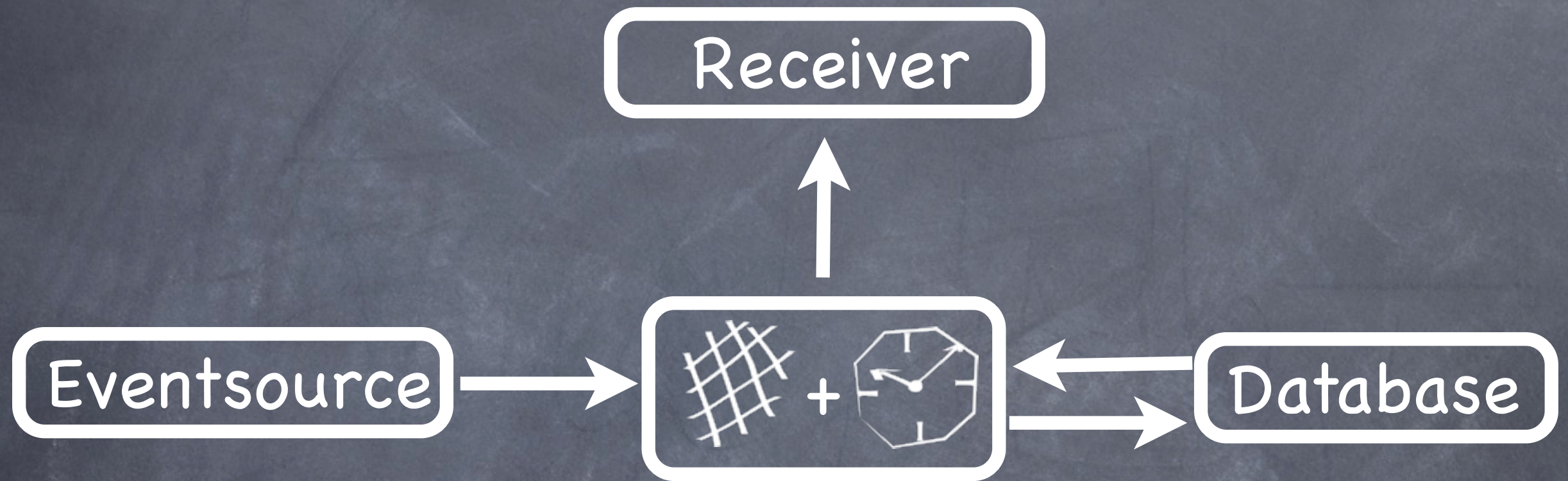
```
select hashtag, count(hashtag) from  
TwitterMessage.win:time(1200 sec)  
group by hashtag
```

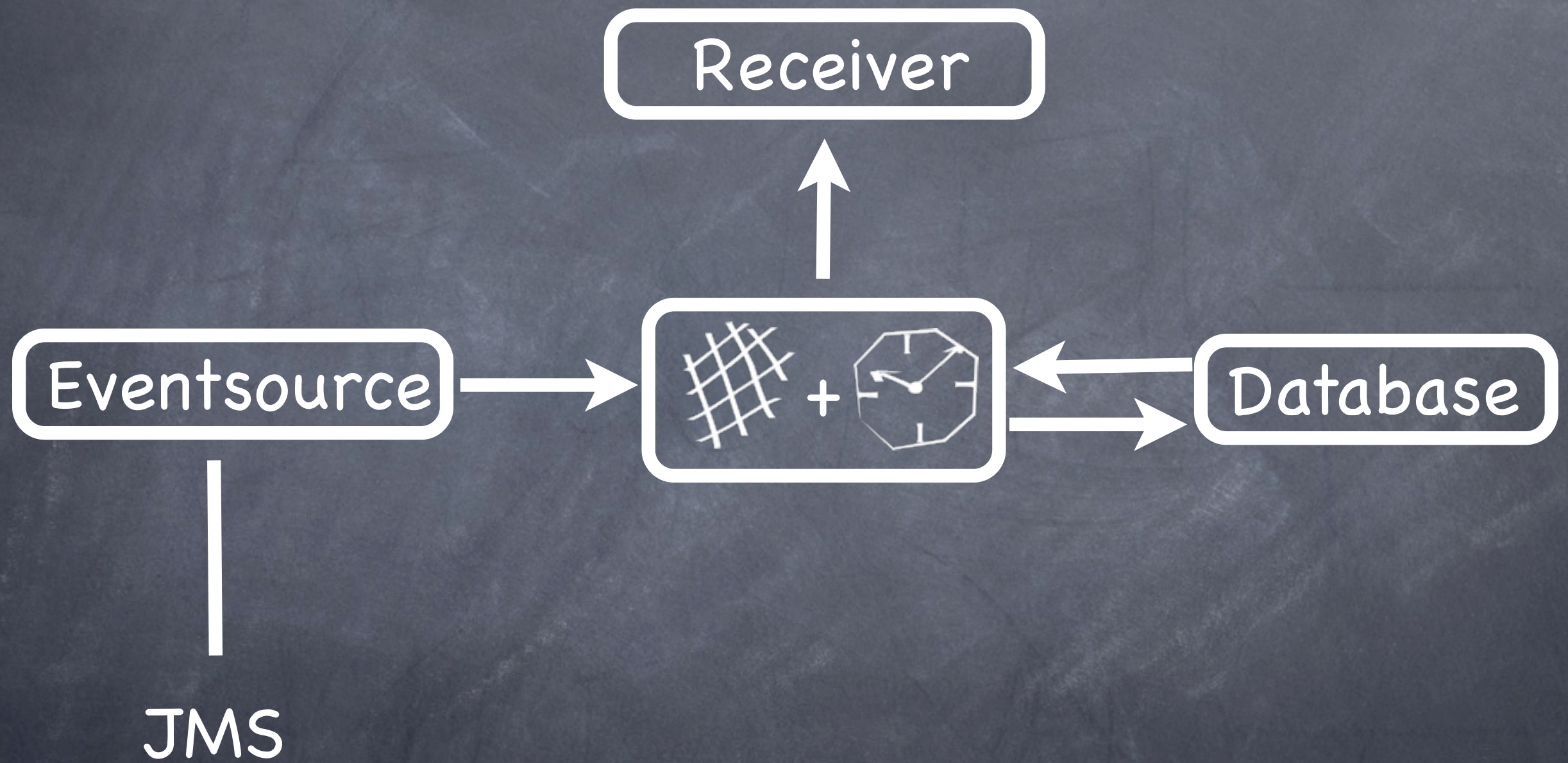


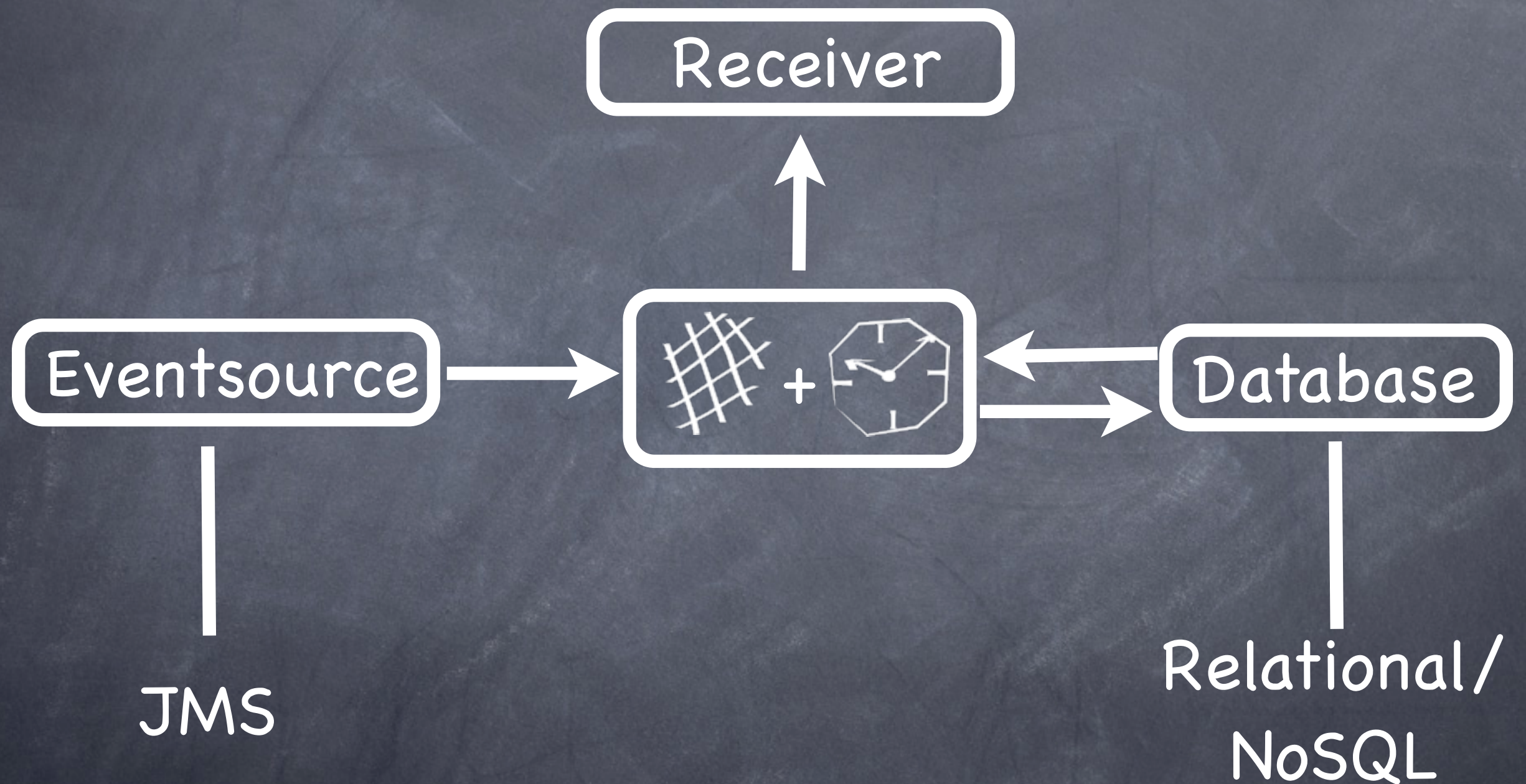


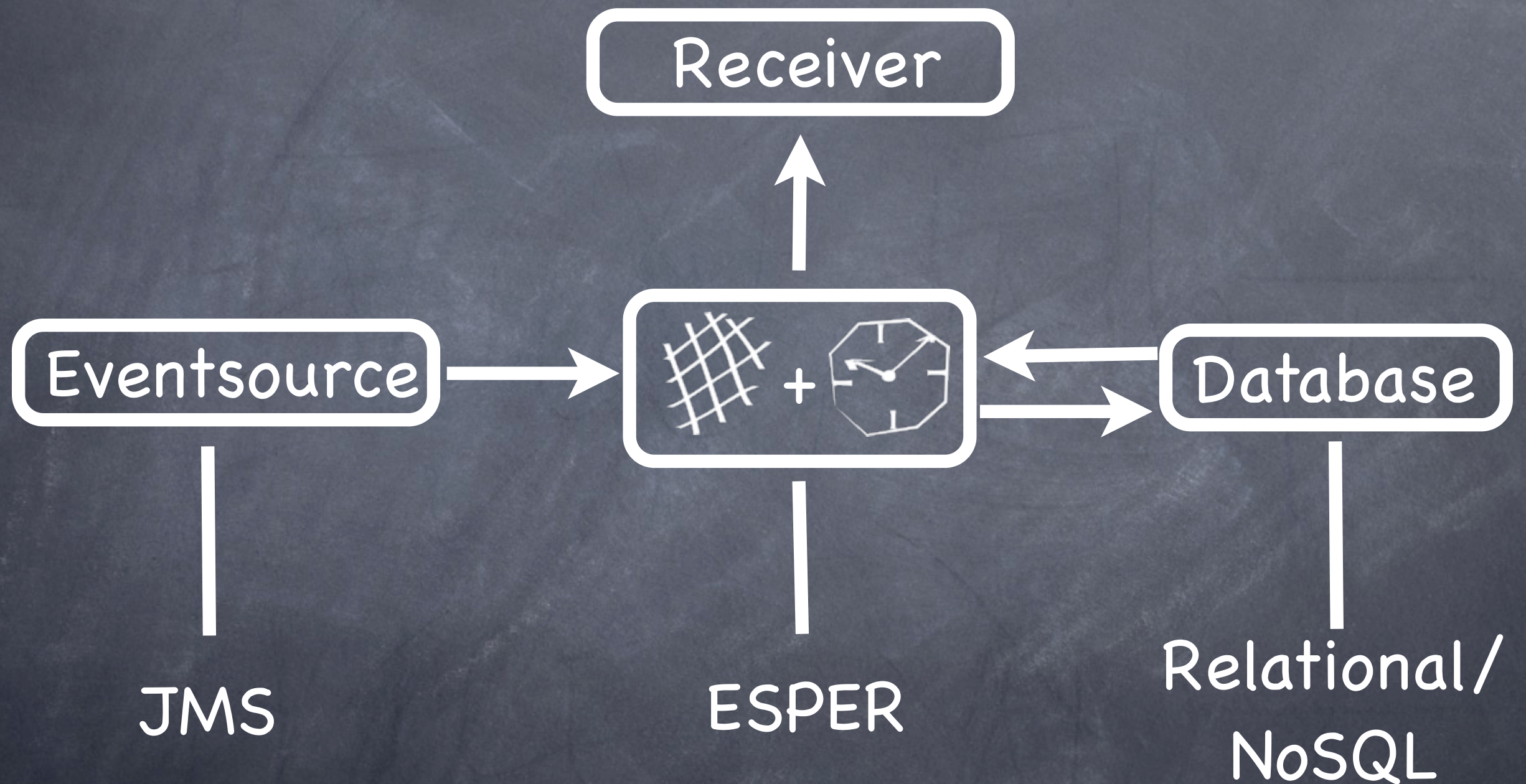






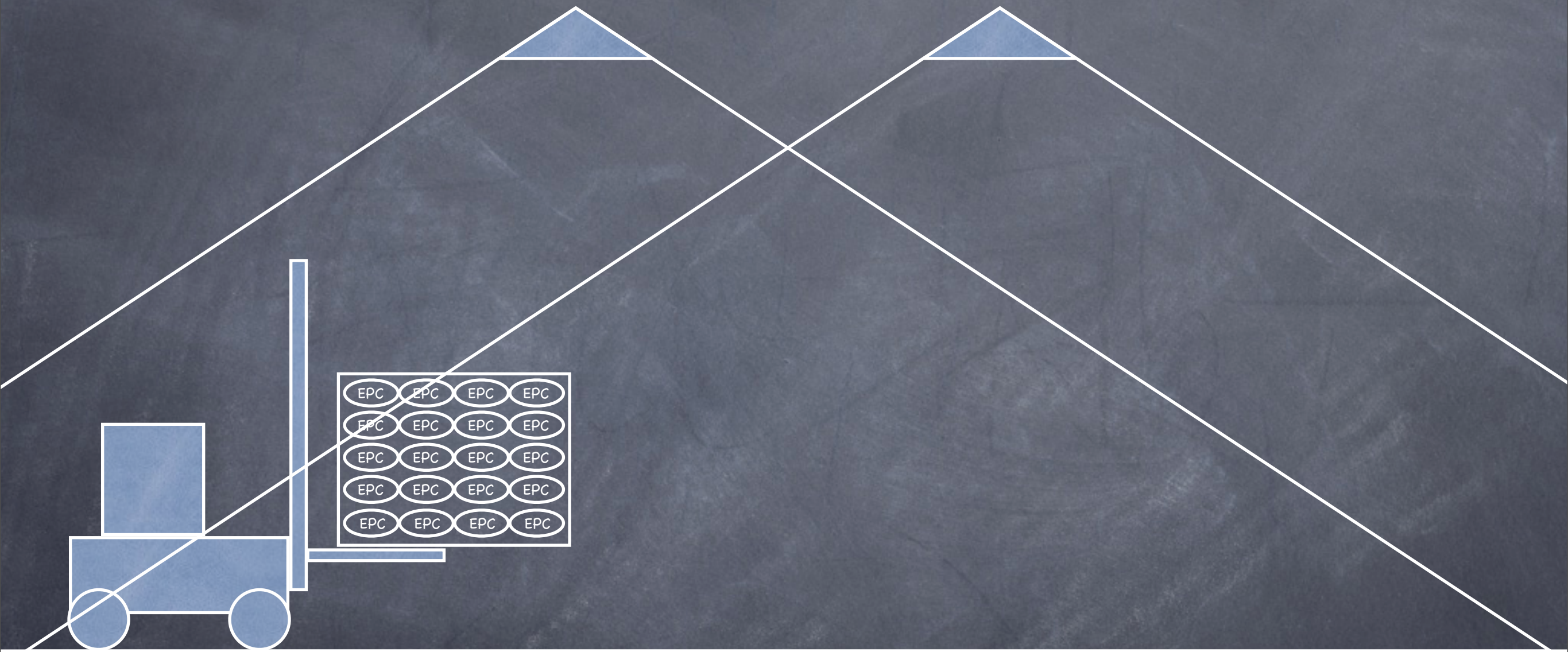


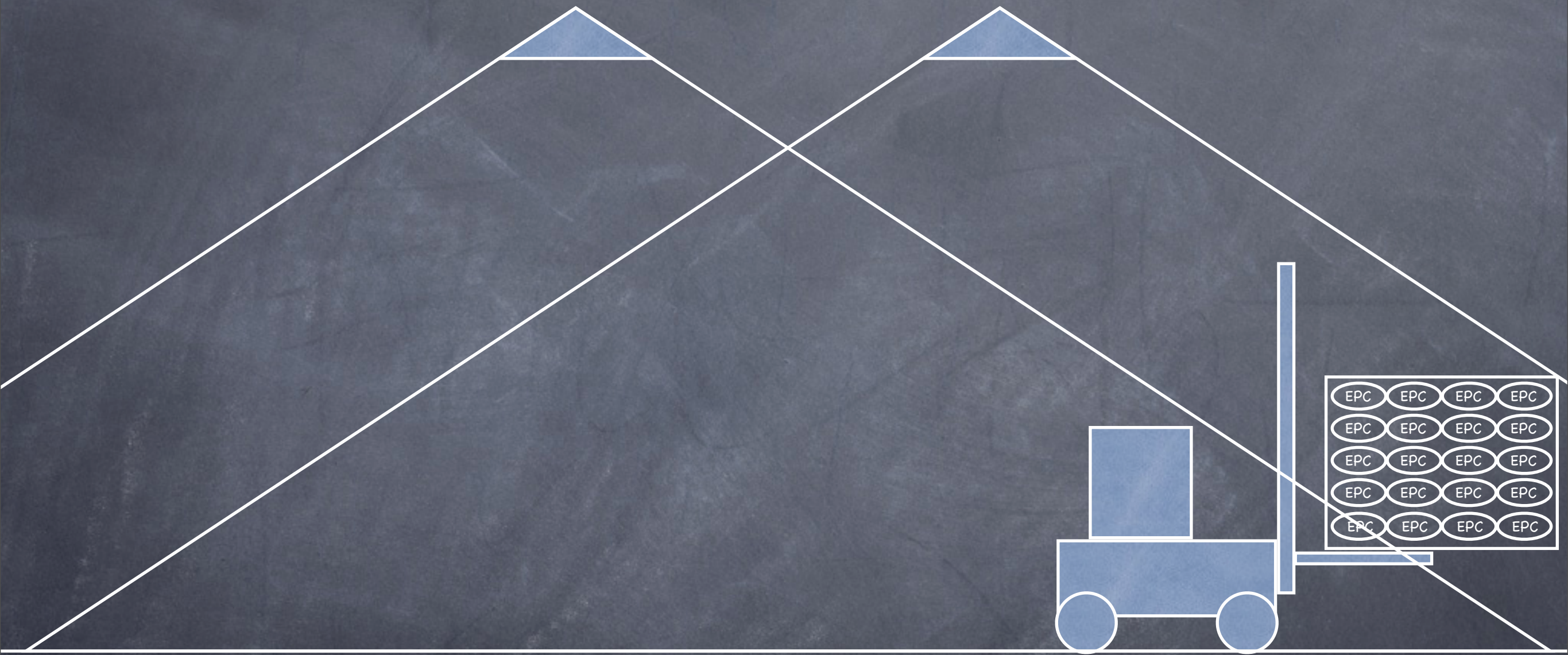




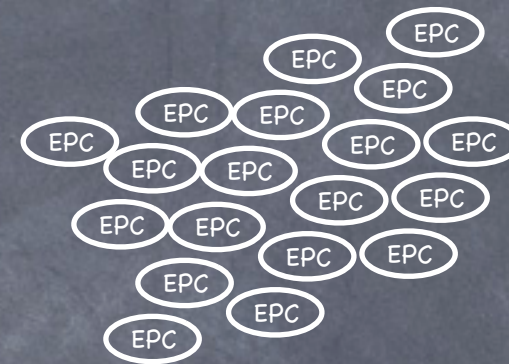
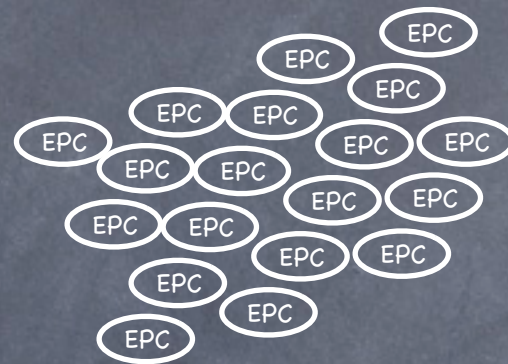
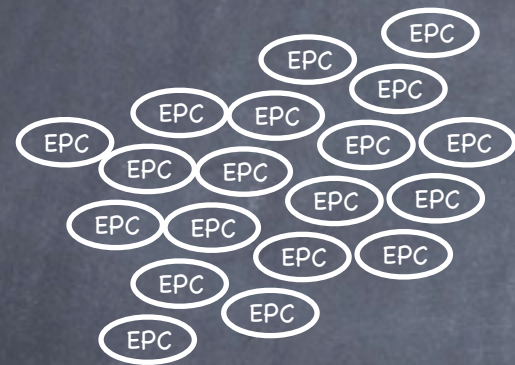








Signalstärke



Zeit

6.5.2010



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