

# Control System Studio Training - Archive System

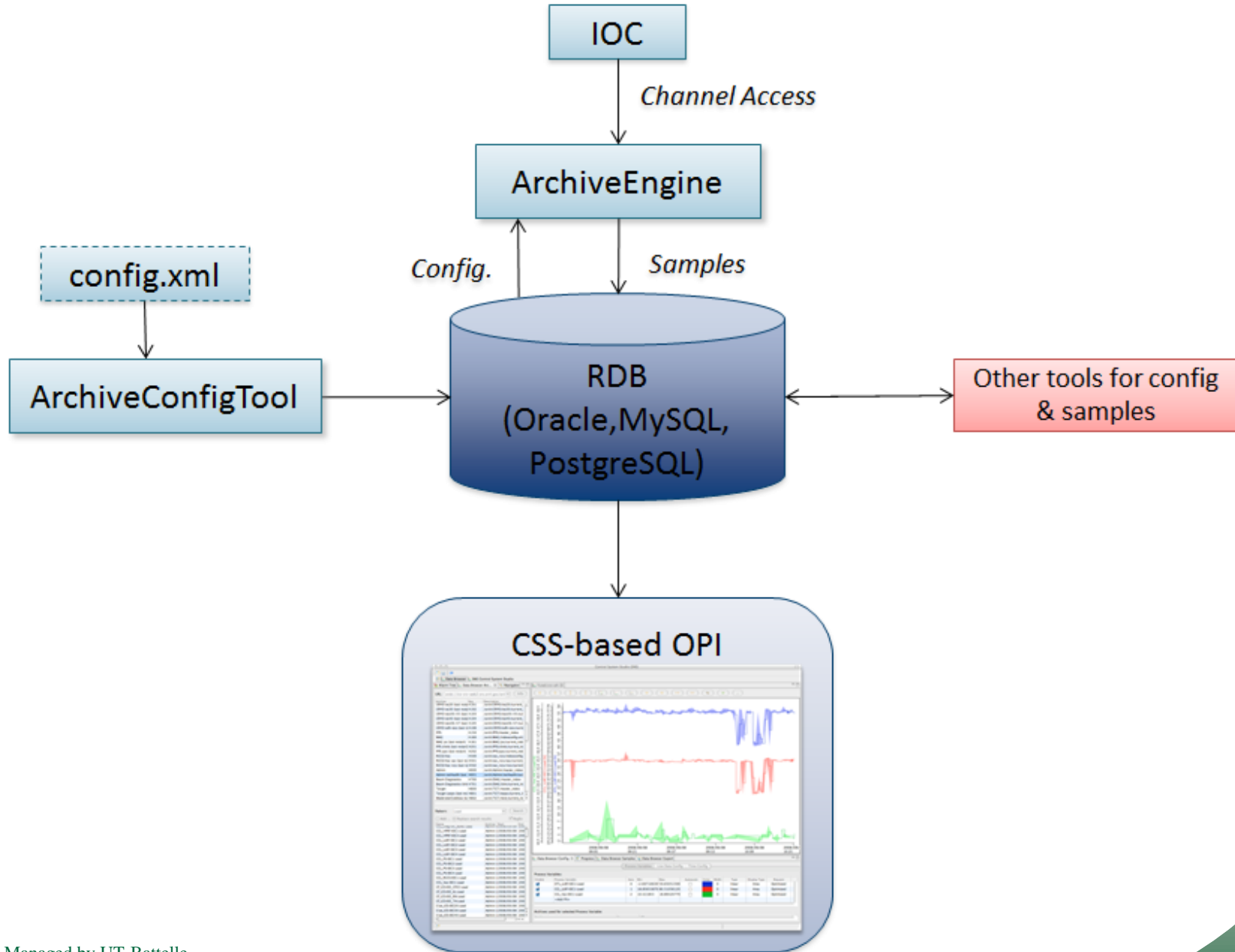
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# Overview



# Prepare RDB

Plugin `org.csstudio.archive.rdb`,  
folder `dbd/`:

Copy/paste the commands for the following  
from `mysql_schema.txt` into a mysql shell:

1. Create “archive” user with password “\$archive”
2. Create “report” user with password “\$report”
3. Create “archive” data base
4. Create tables, insert some demo data

# Create & import initial configuration

- a) Directly manipulate tables in RDB?
- b) Use ArchiveConfigTool to import XML file

## Same format as Channel Archiver:

```
<engineconfig>
  <group>
    <name>Cooling</name>
    <channel><name>demo:tank</name>
      <period>1.0</period><monitor/>
    </channel>
  </group>
</engineconfig>
```

## Import:

```
ArchiveConfigTool -pluginCustomization /path/to/settings.ini \
  -import -engine demo -config demo.xml
```

# settings.ini

## Remember Hierarchical Preferences!

### Add this to your settings.ini:

```
# Archive RDB (Config Tool, Archive Engine)
org.csstudio.archive.rdb/url=jdbc:mysql://localhost/archive
org.csstudio.archive.rdb/user=archive
org.csstudio.archive.rdb/password=$archive
org.csstudio.archive.rdb/schema=

# Channel Access (Archive Engine)
org.csstudio.platform.libs.epics/addr_list=127.0.0.1
org.csstudio.platform.libs.epics/use_pure_java=true
```

# Run Archive Engine

## Start:

```
ArchiveEngine -pluginCustomization /path/to/settings.ini \  
-engine demo
```

## Monitor:

<http://localhost:4812/main>

- Check start time, number of channels
- Look at groups, individual channels
- Values received and written for each channel

## Stop:

<http://localhost:4812/stop>

# View Data in CSS Data Browser

## plugin\_customization.ini of CSS product:

```
# Read-only(!) archive access
org.csstudio.archive.rdb/url=jdbc:mysql://localhost/archive
org.csstudio.archive.rdb/user=report
org.csstudio.archive.rdb/password=$report
org.csstudio.archive.rdb/schema=

# URLs for archive search
org.csstudio.trends.databrowser2/urls=jdbc:mysql://localhost/archive

# Default data sources for newly added channels
# Format: <name>|<key>|<url>
org.csstudio.trends.databrowser2/archives=RDB|1|jdbc:mysql://localhost/archive
```

- Open Data Browser, Add PV
- Open Archive Search View, search for channels

# Multiple Archive Engines

On each host, need unique port numbers  
(default: 4812)

```
EngineConfigImport ... -port 4813
```

```
ArchiveEngine ... -port 4813
```

Web access via <http://localhost:4813/main>

- **Consistency check: Engine compares its port with the number in the configuration.**

- **RDB configuration for engine also contains host:**

```
EngineConfigImport ... -host some_host
```

In principle, on could create a tool that automatically starts archive engines on a host based on RDB info. Not implemented.