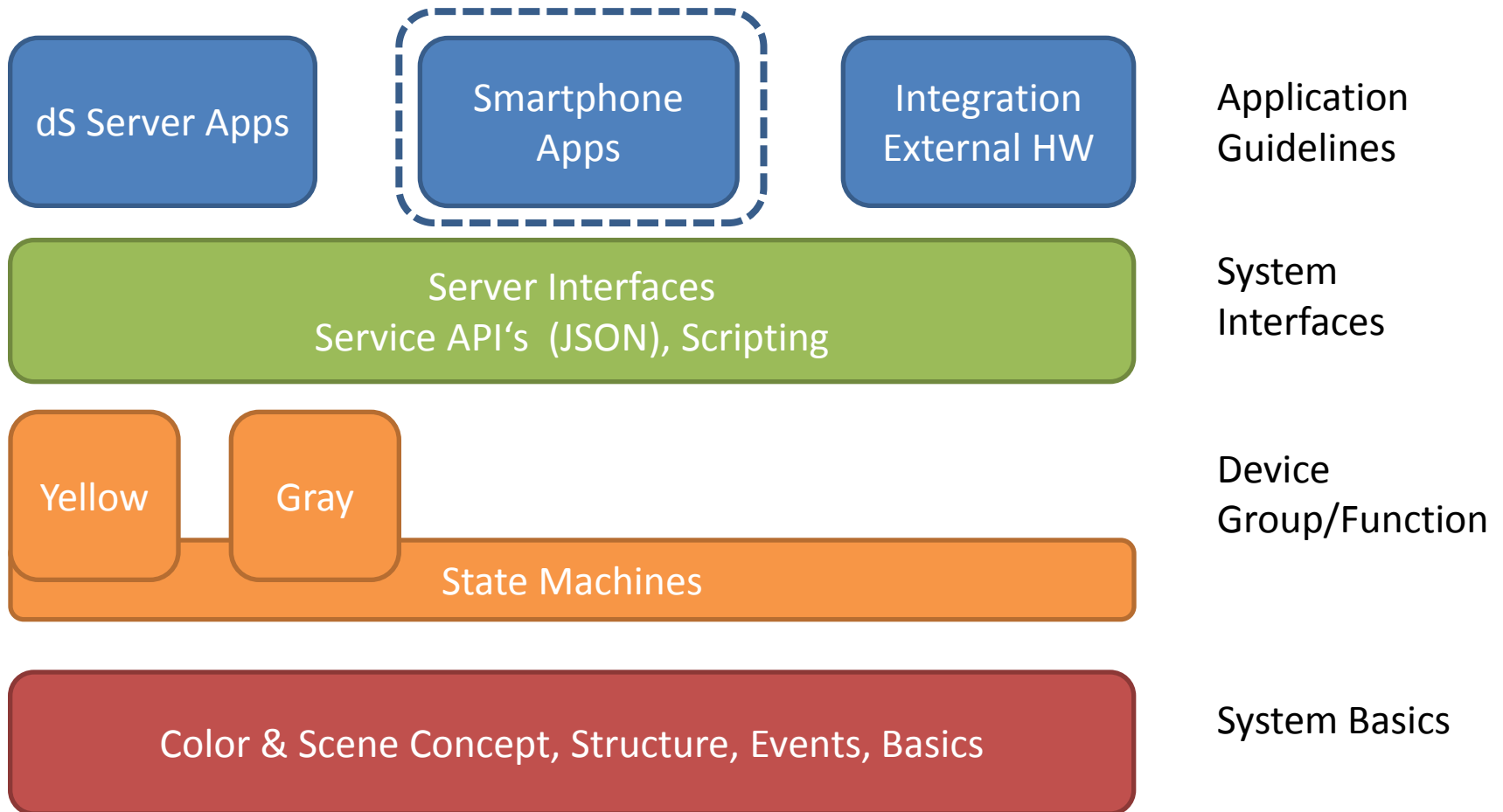


**digitalSTROM**

**Developer day -  
Smartphone Applications**

20/21 Sep, 2012

# System Documentation



# Introducing the JSON API

Find JSON function overview in the corresponding dSS release:

<http://developer.digitalstrom.org/download/dss/>

**Example:** <https://10.0.0.2:8080/json/apartment/getConsumption>

**Returns:**

```
{
  ok: true,
  - result: {
    consumption: 201
  }
}
```

**How a JSON request is built up:**

<https://<server ip>:<port>/json/<class>/<function>?<parameter>&<parameter> ....>

**Applications outside the dSS should access through port 8080, using the token login system.**

# JSON examples

Gets consumption:

<https://testrack2.aizo.com:50443/json/apartment/getConsumption>

Gets all zones' id and name:

[https://testrack2.aizo.com:50443/json/property/query?query=/apartment/zones/\\*\(ZoneID,name\)](https://testrack2.aizo.com:50443/json/property/query?query=/apartment/zones/*(ZoneID,name))

Gets User Defined Actions:

[https://testrack2.aizo.com:50443/json/property/query?query=/usr/events/\\*\(name,id\)](https://testrack2.aizo.com:50443/json/property/query?query=/usr/events/*(name,id))

Call Preset 1 (scene 5) on lights (group 1) in Schlaffzimmer (id 1413):

<https://testrack2.aizo.com:50443/json/zone/callScene?id=1413&groupID=1&sceneNumber=5&force=true>

<https://testrack2.aizo.com> is publicly available

Port 58080 is mapped to 8080 on the dss, and 50443 → 443

# Login Process

First time

Request  
application  
token

<https://10.0.0.2:8080/json/system/requestApplicationToken?applicationName=testApp>

Notice port 8080. You CANNOT request an application token from a logged in session. This returns an application token.

Login with  
user/pass

<https://10.0.0.2:8080/json/system/login?user=dssadmin&password=dssadmin>

This returns a temporary session token.

Enable  
application  
token

[https://10.0.0.2:8080/json/system/enableToken?applicationToken=<the\\_application\\_token>&token=<the\\_temporary\\_session\\_token>](https://10.0.0.2:8080/json/system/enableToken?applicationToken=<the_application_token>&token=<the_temporary_session_token>)

Use the temporary session token. The application token is now enabled.

# Login Process

Subsequent times

Request  
Session token



Perform JSON  
request using  
session token

[https://10.0.0.2:8080/json/system/loginApplication?  
loginToken=<the\\_application\\_token>](https://10.0.0.2:8080/json/system/loginApplication?loginToken=<the_application_token>)

This returns a session token.

*A session token is valid for 60 seconds, and gets renewed every time it is used.*

[https://10.0.0.2:8080/json/apartment/getConsumption&  
token=<the\\_session\\_token>](https://10.0.0.2:8080/json/apartment/getConsumption&token=<the_session_token>)

If the session token is valid, the consumption is returned.

# Notes:

- The dSS uses a self signed certificate, so in order to connect the user should accept that the certificate is not signed by a known authority. This can also be solved by simply accepting any certificate in your network client.
- Install a JSON plugin for your browser, and try out your JSON commands there first.
- Explore the property tree, most data can be retrieved by a query to this.
- Read the basic digitalSTROM documentation and become familiar with the scene table:

<http://developer.digitalstrom.org/Architecture>

# Do's and Don'ts

## Do:

- Call scenes to address several devices at once
- Store application token
- Call User Defined Actions and other high level events
- Contact us if you're in doubt whether you're doing it the digitalSTROM way or not

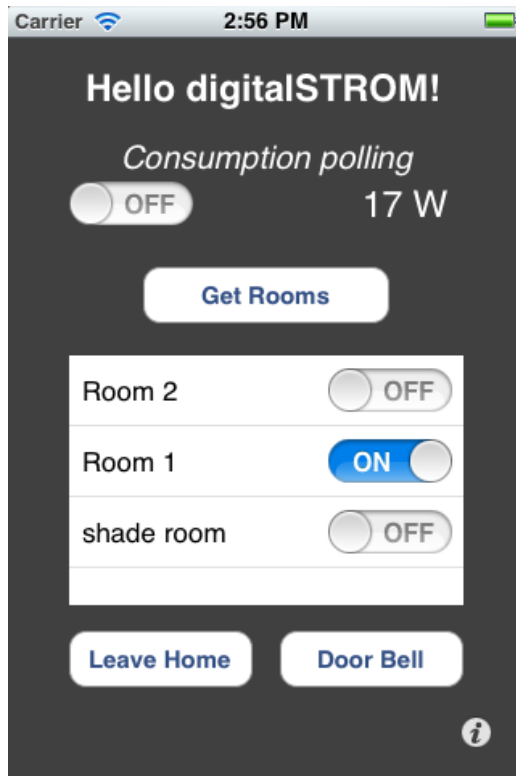
## Don't:

- Call multiple devices to simulate a scene call
- Store username/password
- Set specific outputvalue on devices
- Call scenes more than once per second

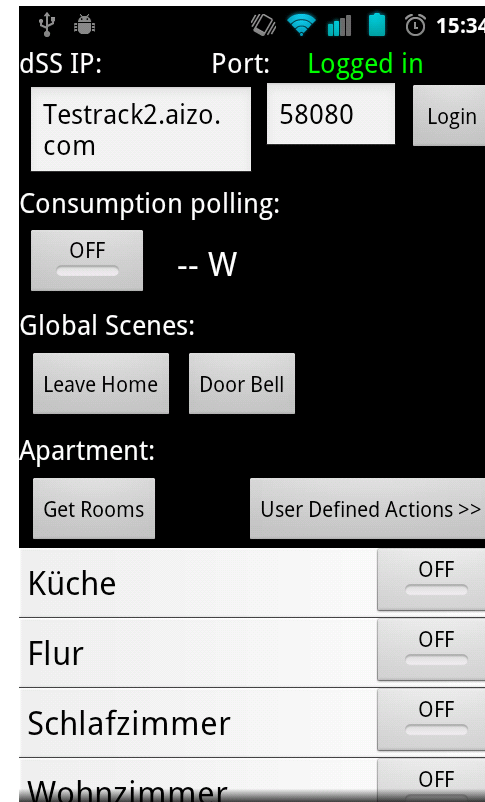


# Walkthrough: "Hello digitalSTROM"

## iPhone



## Android



Find the source code at

<https://gitorious.digitalstrom.org/smartphone-demo>