

MDCC
2016

中国移动开发者大会
Mobile Developer Conference China 2016

Alibaba Group
阿里巴巴集团

Weex Native Architecture

郑蔚(克爽)

mdcc.csdn.net

weex

A framework for building Mobile cross-platform UI

Getting Started

Github Repo



Lightweight

low footprint , simple
syntax , and easy to use



Extendable

abundant build-in components ,
extendable apis , various events



High Performance

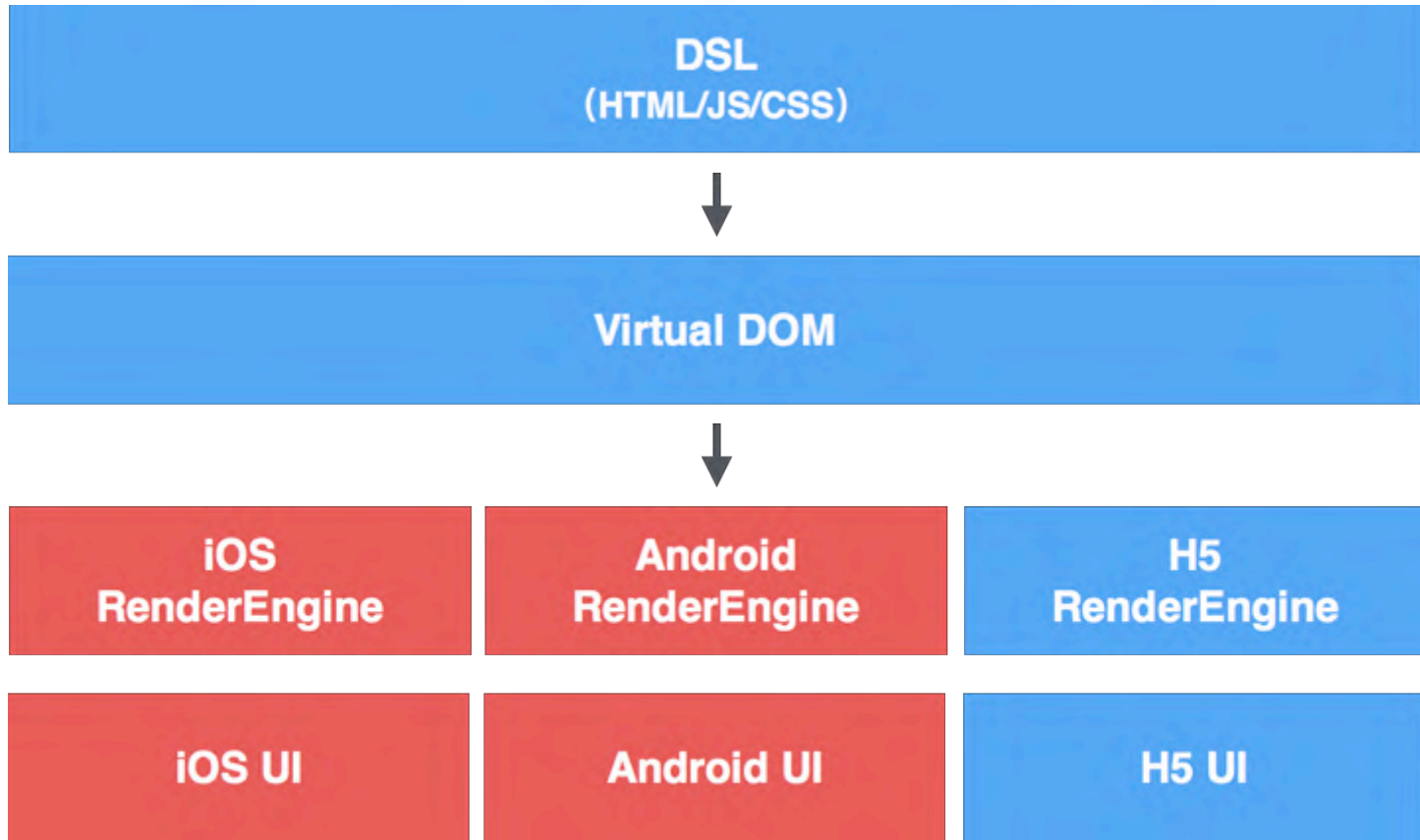
load fast , render fast ,
better experience

<https://github.com/alibaba/weex>

- Weex的架构
- Native/Javascript 如何交互
- 渲染过程

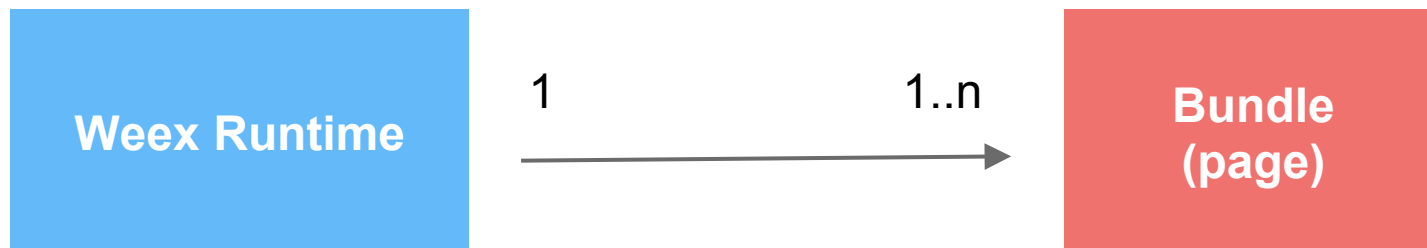


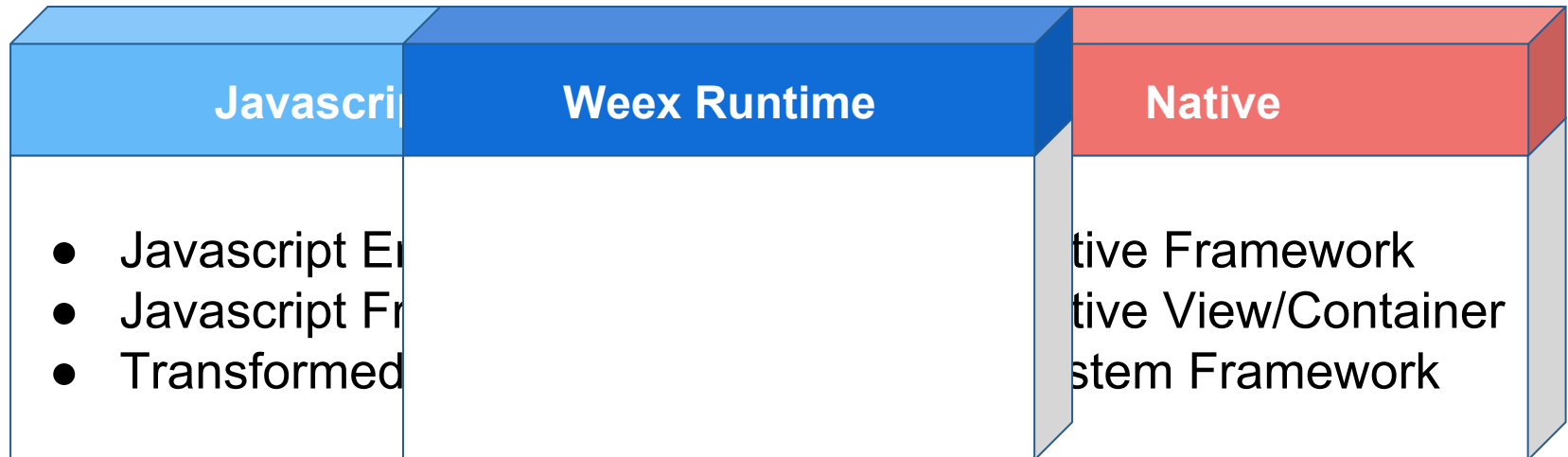
§ Weex Framework



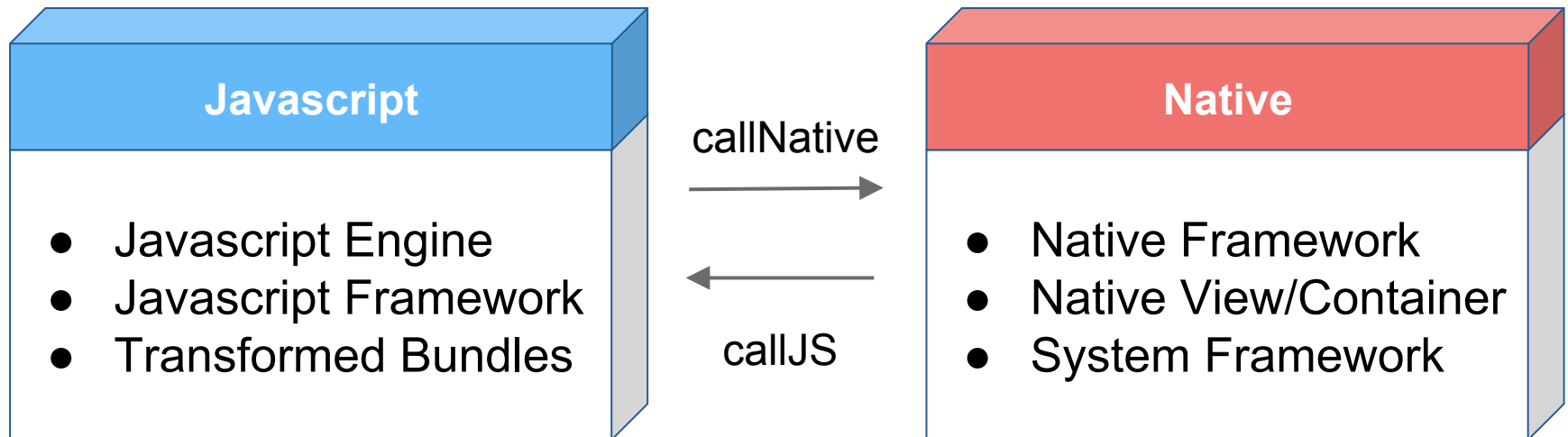
§ Demo:
helloworld.we

- 运行时全局共用, 页面实例间隔离





§ JS与Native交互



```
sospartan — sospartan@sospartans-MacBook-Pro — -zsh — 116x28
~
16:21:18.980 D/weex : callJS >>>> instancelid:1 tasks:[{"data":"1","type":2},{"data":{"\args\":"_root\","
16:21:18.981 D/weex : callNative >>>> instancelid:1, tasks:[{"module":"dom","method":"updateFinish","args
16:21:19.944 D/weex : callJS >>>> instancelid:1function:destroyInstance tasks:[{"data":"1","type":2}]
16:21:26.525 D/weex : callNative >>>> instancelid:2, tasks:[{"module":"dom","method":"createBody","args":
16:21:26.886 D/weex : callNative >>>> instancelid:2, tasks:[{"module":"dom","method":"createFinish","args
16:21:26.897 D/weex : callJS >>>> instancelid:2 tasks:[{"data":"2","type":2},{"data":{"\args\":"_root\","
16:21:26.897 D/weex : callNative >>>> instancelid:2, tasks:[{"module":"dom","method":"updateFinish","args
16:21:32.104 D/weex : callJS >>>> instancelid:2 tasks:[{"data":"2","type":2},{"data":{"\args\":"_root\","
16:21:32.105 D/weex : callNative >>>> instancelid:2, tasks:[{"module":"dom","method":"updateFinish","args
16:21:32.113 D/weex : callJS >>>> instancelid:2 tasks:[{"data":"2","type":2},{"data":"...
16:21:32.113 D/weex : callNative >>>> instancelid:2, tasks:[{"module":"dom","method":"updateFinish","args
16:21:32.124 D/weex : callJS >>>> instancelid:2 tasks:[{"data":"2","type":2},{"data":{"\args\":"157\","
16:21:32.125 D/weex : callNative >>>> instancelid:2, tasks:[{"module":"event","method":"openURL","args":[
16:21:32.126 D/weex : callNative >>>> instancelid:2, tasks:[{"module":"dom","method":"updateFinish","args
16:21:32.141 D/weex : callJS >>>> instancelid:2 tasks:[{"data":"2","type":2},{"data":{"\args\":"_root\","
16:21:32.142 D/weex : callNative >>>> instancelid:2, tasks:[{"module":"dom","method":"updateFinish","args
16:21:32.361 D/weex : callNative >>>> instancelid:3, tasks:[{"module":"dom","method":"createBody","args":
16:21:32.533 D/weex : callNative >>>> instancelid:3, tasks:[{"module":"dom","method":"createFinish","args
16:21:32.538 D/weex : callJS >>>> instancelid:3 tasks:[{"data":"3","type":2},{"data":{"\args\":"_root\","
16:21:32.539 D/weex : callNative >>>> instancelid:3, tasks:[{"module":"dom","method":"updateFinish","args
```

createBody

updateAttrs

updateStyle

removeElement

addElement

moveElement

addEvent

removeEvent

createFinish

refreshFinish

updateFinish

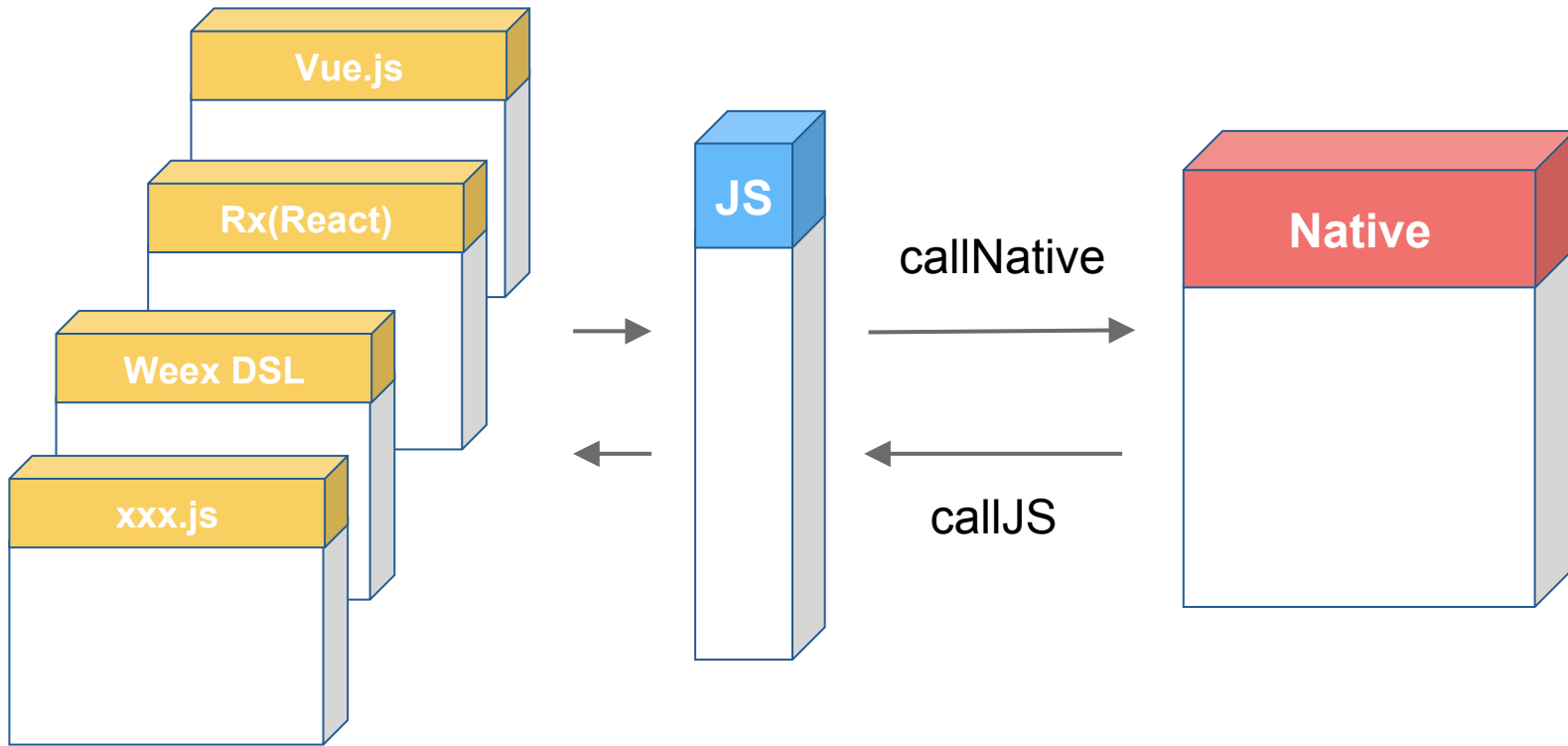
createInstance

destroyInstance

refreshInstance

- registerModules
- registerComponents

- setTimeoutCallback
- fireEvent
- callback



§ 拓展Weex

对应于页面上的标签,负责把
DOM元素渲染为对应的
native view.

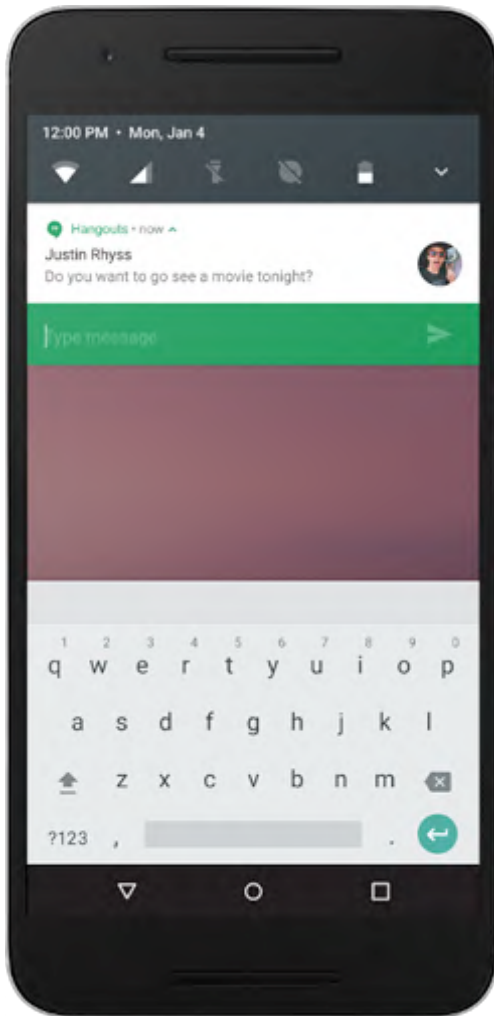


[
div, text, a, image, video,
list(cell, header), scroller, slider(indicator),
input, switch,
web, tabbar, embed ...
]

对native功能接口的封装

```
stream.fetch({
  method: 'GET',
  url: "http://httpbin.org/get",
  type: 'json'
}, function(response) {
  //process response
}, function(response){
  //progress response
  console.log("current bytes received:"+response.length);
});
```

[
modal, storage,
clipboard, globalevent,
Timer, stream ...
]

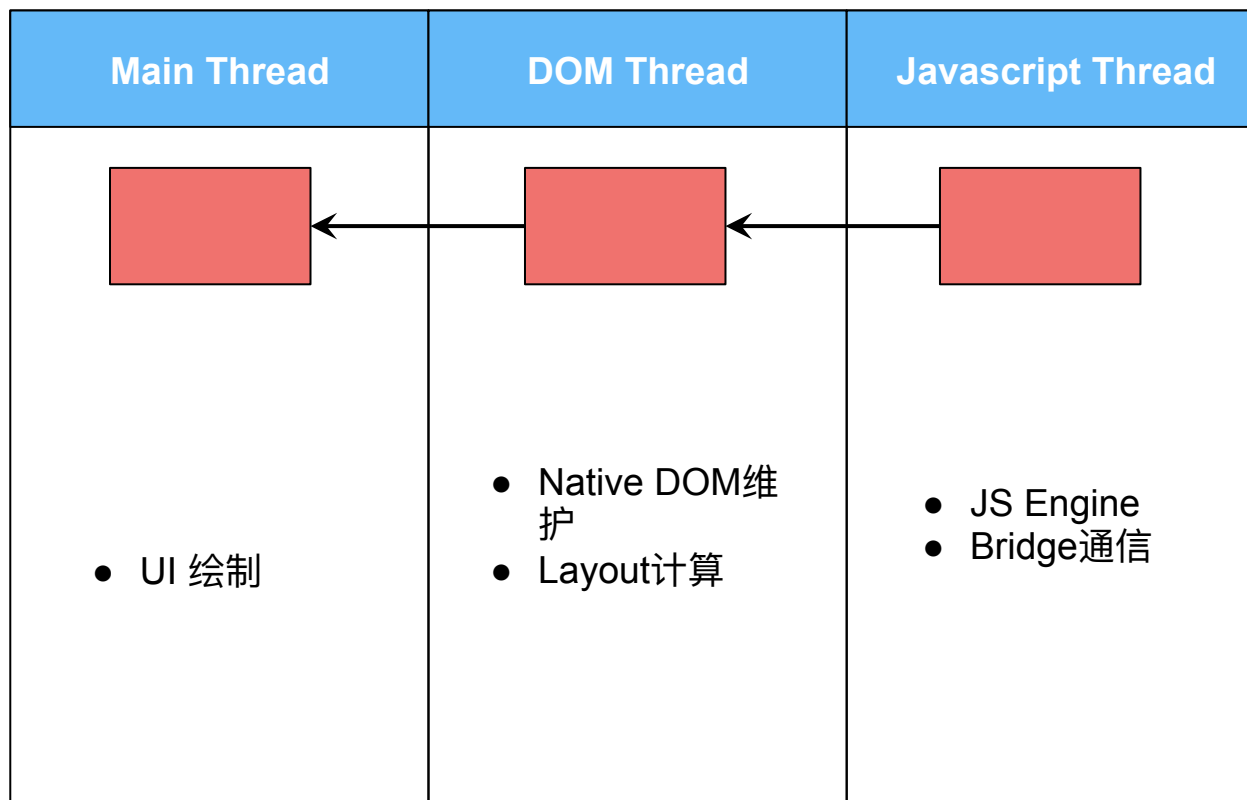


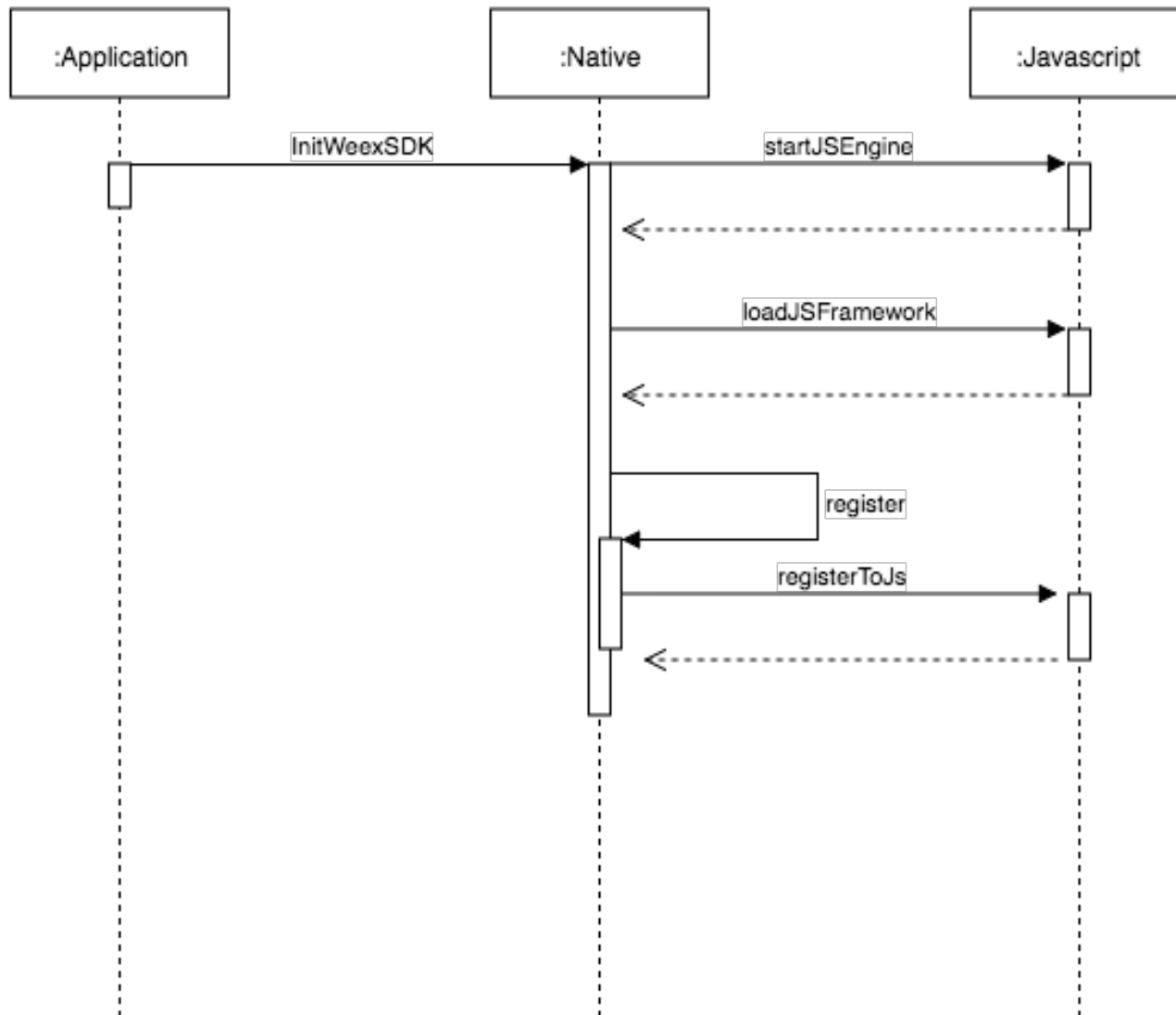
§ Demo:
Notification quick
reply(Android 7.0)

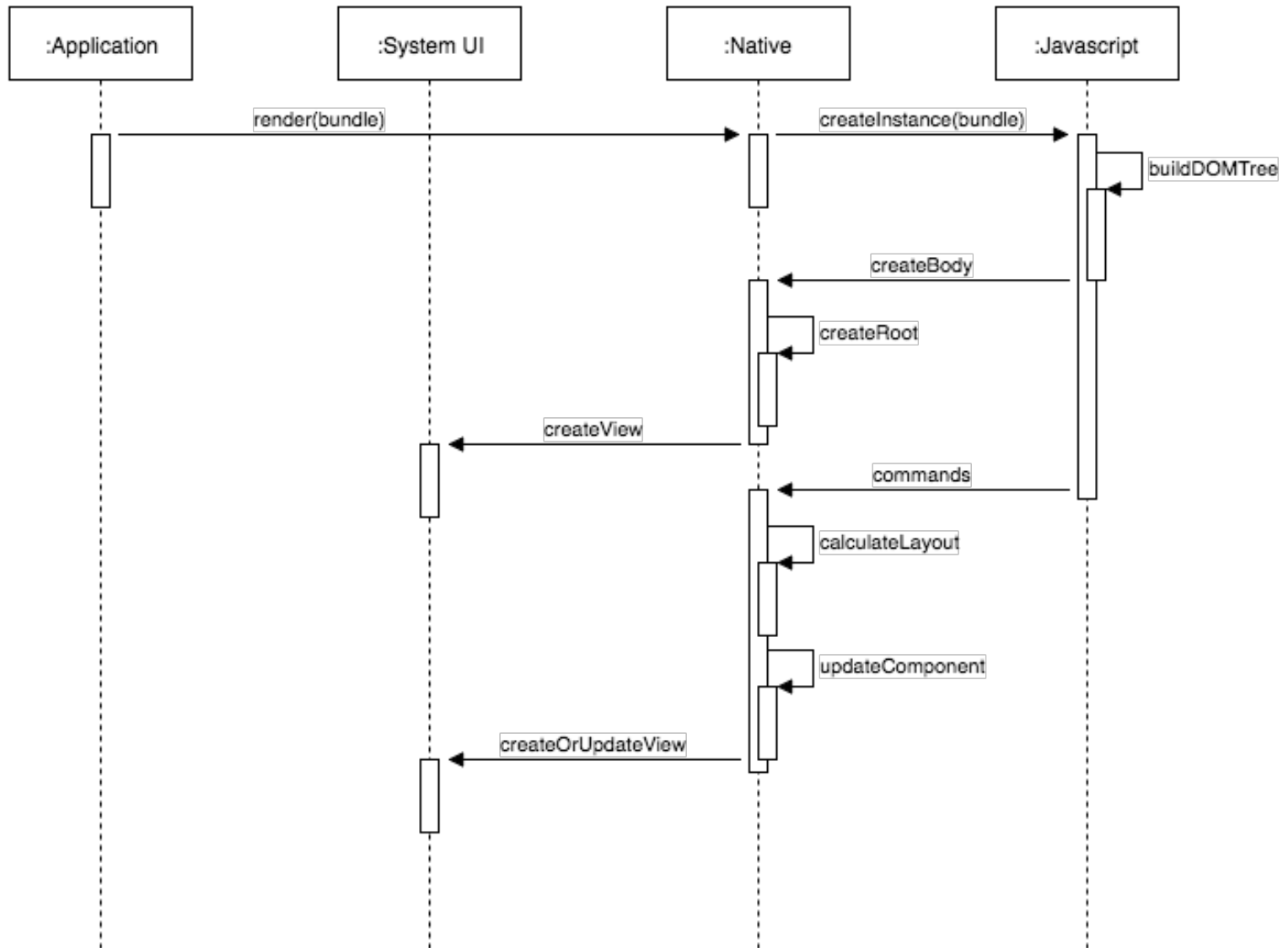
§ 渲染过程

- 线程模型
- SDK初始化
- 页面渲染

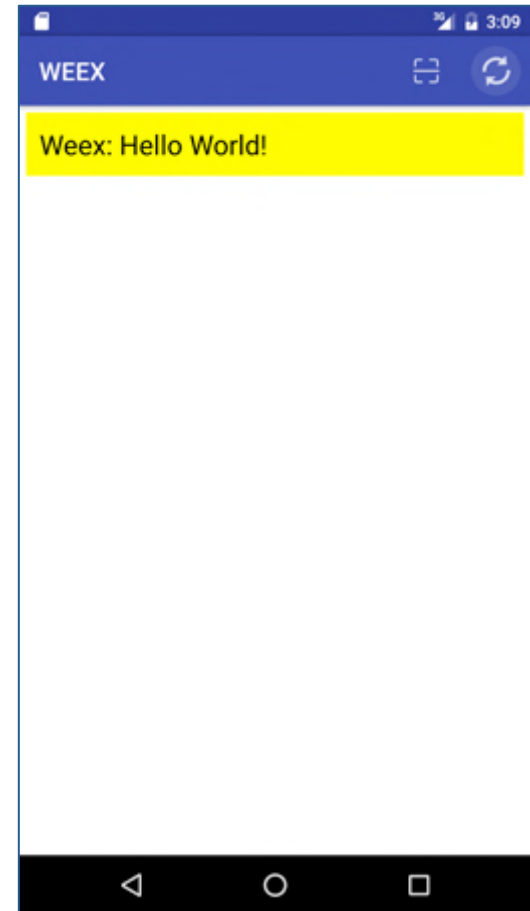
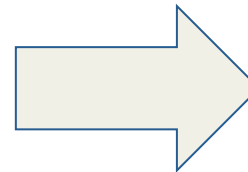






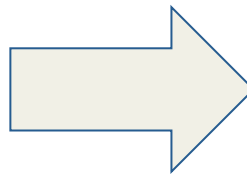


```
<template>
  <div style="padding:10">
    <div class="bg-yellow">
      <text class="big">Weex: Hello World!</text>
    </div>
  </div>
</template>
<style>
  .big {
    font-size:40;
  }
  .bg-yellow {
    background-color:yellow;
    padding:20;
  }
</style>
<script>
</script>
```



```
<template>
  <div style="padding:10">
    <div class="bg-yellow">
      <text class="big">Weex: Hello World!</text>
    </div>
  </div>
</template>
<style>
  .big {
    font-size:40;
  }
  .bg-yellow {
    background-color:yellow;
    padding:20;
  }
</style>
<script>
</script>
```

index.we



index.js

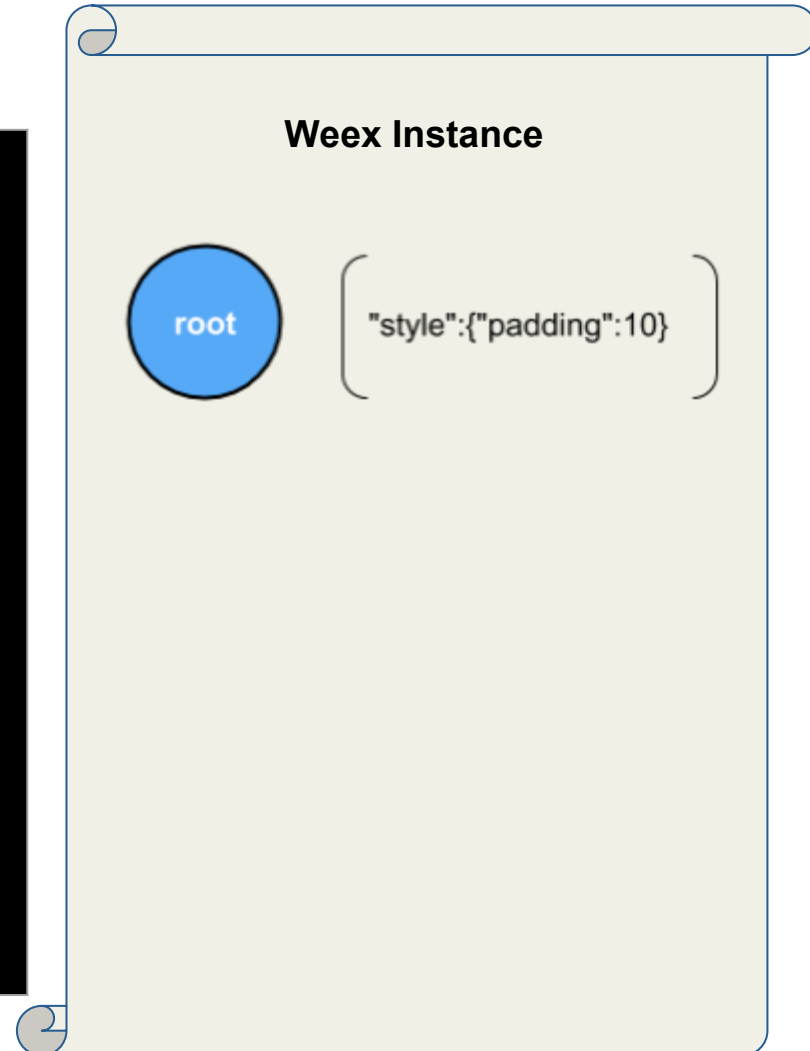
1. createInstance

```
callJS >>>>
  createInstance
  [
    {"data":"8","type":2},
    {"data":"....
```

Weex Instance

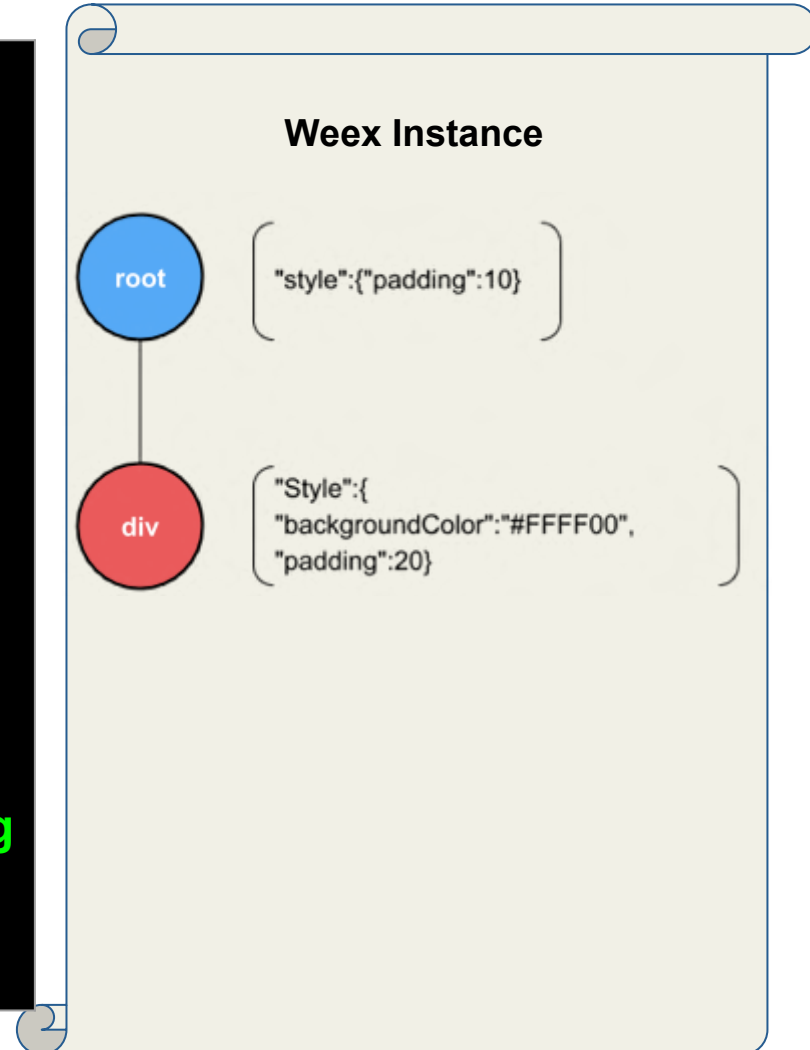
2. createBody

```
callNative >>>>
{
  "module":"dom",
  "method":"createBody",
  "args":
  [
    {
      "ref": "_root",
      "type": "div",
      "attr": {},
      "style": {"padding":10}...
```



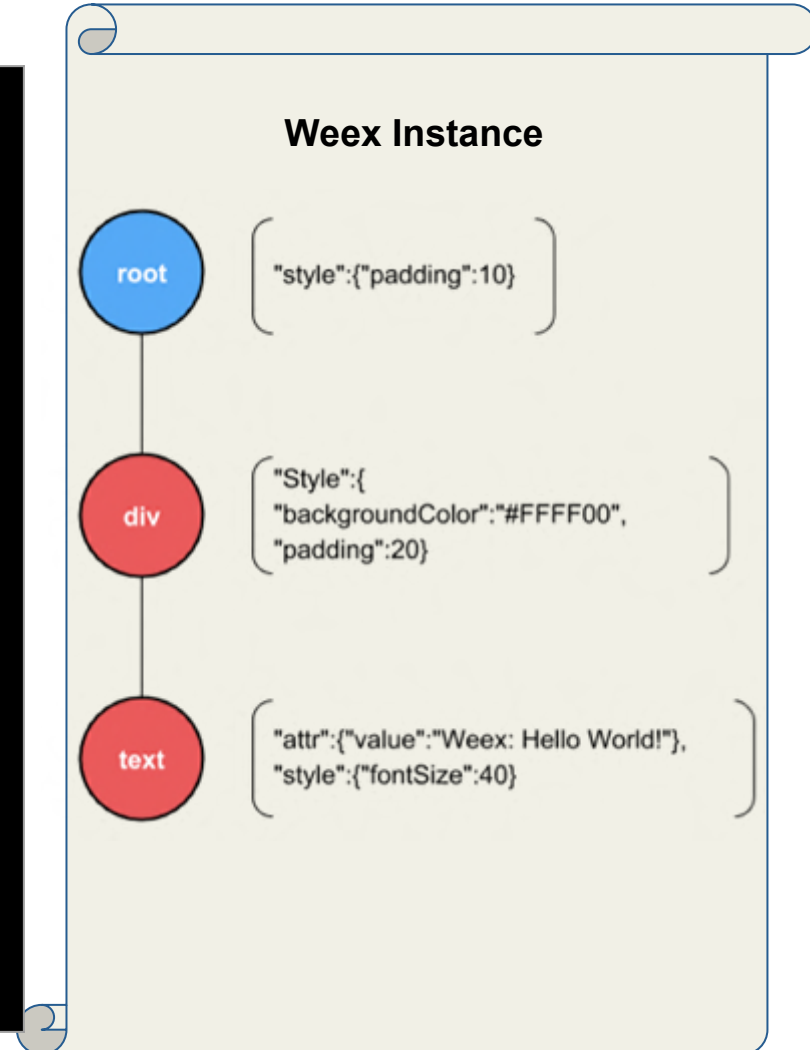
3. addElement

```
callNative >>>>
{
  "module":"dom",
  "method":"addElement",
  "args":
  [
    "_root",
    {
      "ref":"31",
      "type":"div",
      "attr":{},      "style":
{"backgroundColor":"#FFFF00","padding
":20}...
```



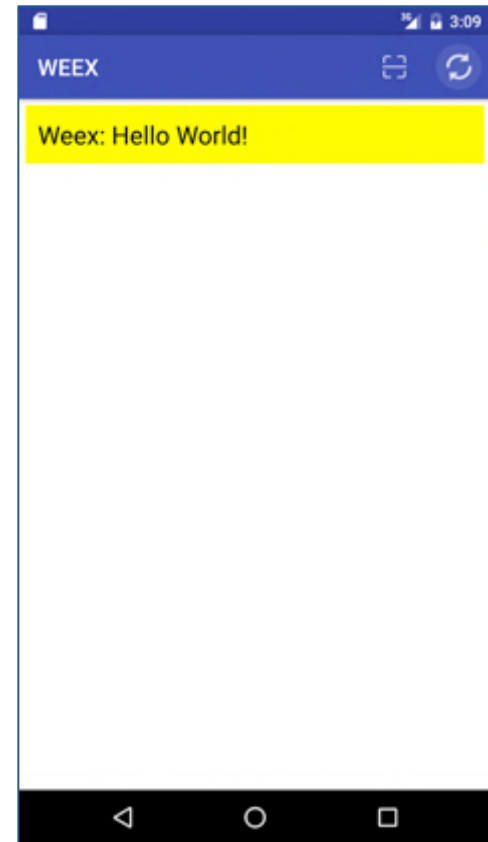
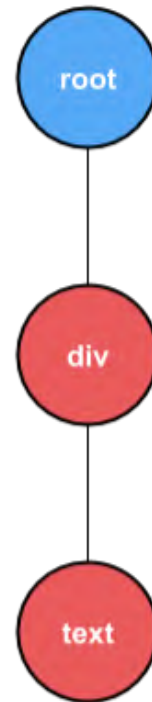
4. addElement

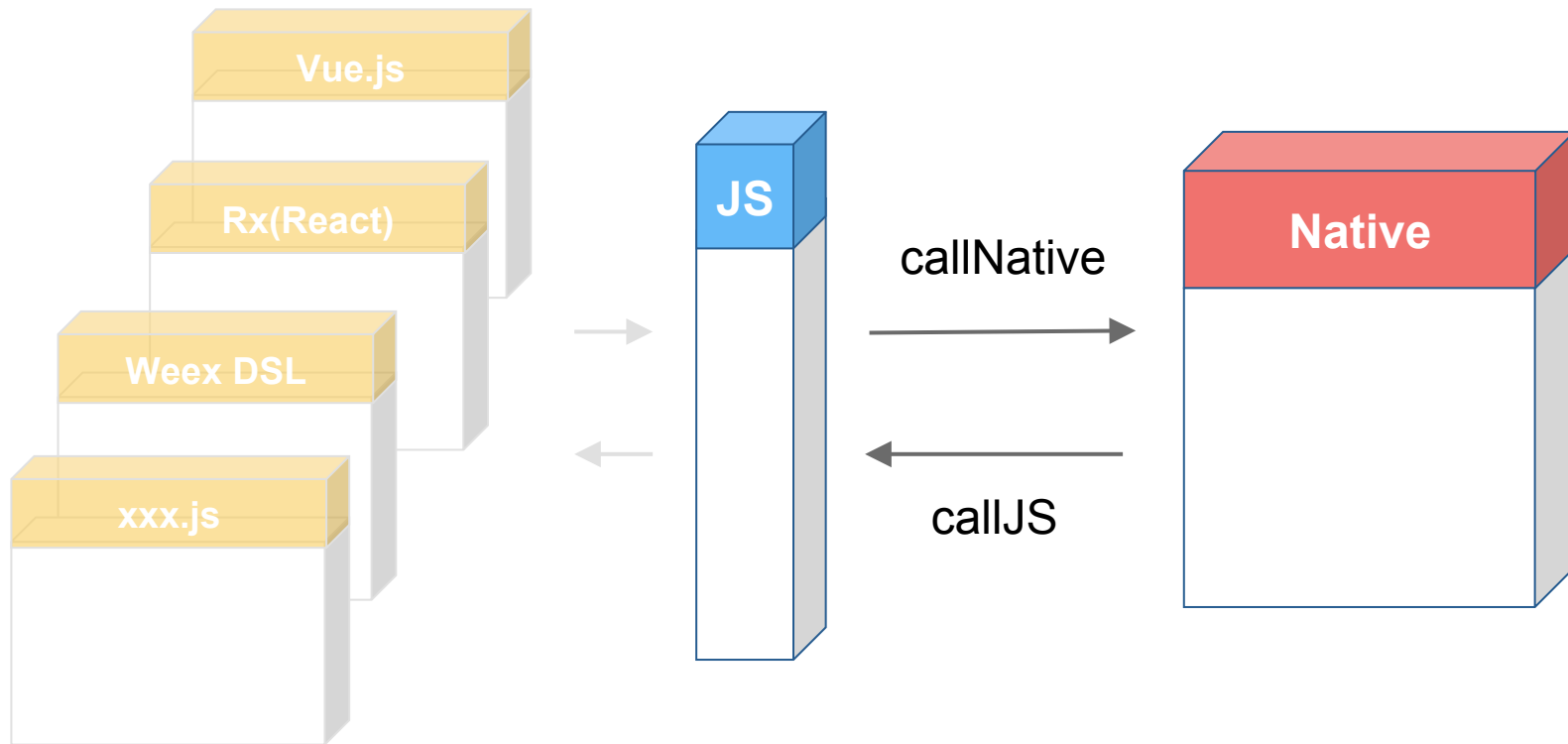
```
callNative >>>>
{
  "module":"dom",
  "method":"addElement",
  "args":
  [
    "31",
    {
      "ref":"32",
      "type":"text",
      "attr":{"value":"Weex: Hello
World!"},
      "style":{"fontSize":40}
      ...
    }
  ]
}
```



5. createFinish

```
callNative >>>>
{
  "module": "dom",
  "method": "createFinish",
  "Args": ...
}
```





§ FAQ



MDCC
2016

中国移动开发者大会
Mobile Developer Conference China 2016

Q&A



<https://github.com/alibaba/weex>

mdcc.csdn.net