

# FIS与集成化解决方案

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# 目录

1.什么是FIS

2.前端集成化方案

# 前端自动化工具

ANT

GRUNT

Glup

FIS

Feature	Fis	Grunt	Comment
自动化编译流程	✓	✓	FIS 可自动构建文件编译流程，减少手动操作
前端编译工具	✓	✓	FIS 拥有针对 JS、CSS、HTML、LESS、CoffeeScript、Smarty、前端模板等校验、合并、优化等工具，同时支持二次开发插件
前后端解耦	✓	✓	FIS 并不关心你使用的任何前后端框架以及语言，甚至可更好的独立开发前端项目
最佳实践	✓	✗	FIS 根据众多前端业务总结整理了适合各类场景的最佳实践方案，方便用户直接使用合理的前端方案
模块化支持	✓	✓	FIS 拥有 JS、CSS 以及模板级别的模块化方案
多平台多语言本地开发环境	✓	✓	FIS 可在多平台下支持 JAVA、NODEJS、PHP 的本地服务器，拥有数据模拟、URL 转发等功能，支持前端项目本地开发预览调试
文件监听	✓	✓	FIS 可监听文件的变化直接进行文件编译、浏览器刷新，方便用户本地开发预览调试
图片合并	✓	✓	FIS 可根据整站进行图片合并，减少繁重的手动成本
自定义规范	✓	✗	FIS 可根据不同的业务等制定开发及部署规范
静态资源管理	✓	✗	FIS 根据静态资源表对整站的静态资源进行管理加载
多平台支持	✓	✓	FIS 可在 win、Linux、mac 等系统下正常运行
自定义流程	✗	✓	FIS 根据前端开发的经验自定义一套合理的编译流程，无需用户再自定义
部署配置	✓	✓	FIS 可根据配置编译发布至本地或任何其他机器，方便用户联调等

# 什么是FIS

自动化工具 + 集成化方案

# 集成化方案--组件化



天气

搜索栏

网址导航

实时热点

```
<!DOCTYPE html>
<html>
  <head>
  </head>
  <body>
    <header>
      <link rel="import" href="widget/weather/weather.html">
      <span>{{username}}</span>
    </header>
    
    <section>
      <link rel="import" href="widget/search/search.html">
    </section>
    <section>
      <link rel="import" href="widget/nav/nav.html">
    </section>
    <section>
      <link rel="import" href="widget/hot/hot.html">
    </section>
  </body>
</html>
```

# 组件化

## 优势

- 结构清晰
- 目录直观
- 可复用

```
<!DOCTYPE html>
<html>
  <head>
  </head>
  <body>
    <header>
      <link rel="import" href="widget/weather/weather.html">
      <span>{{username}}</span>
    </header>
    
    <section>
      <link rel="import" href="widget/search/search.html">
    </section>
    <section>
      <link rel="import" href="widget/nav/nav.html">
    </section>
    <section>
      <link rel="import" href="widget/hot/hot.html">
    </section>
  </body>
</html>
```

```
▼ widget
  ► hot
  ► nav
  ► search
  ▼ weather
    ► img
    ▼ popup
      popup.css
      popup.html
      popup.js
    weather.css
    weather.html
    weather.js
  index.tpl
```

# 组件化的问题



实际使用效果如何？



# 组件化的问题

## 资源加载

- 引用资源繁琐
- 使用成本高
- 连接数过多
- 不用了还要自己删

```
<!DOCTYPE html>
<html>
  <head>
    <link rel="stylesheet" href="/widget/popup/popup.css">
    <link rel="stylesheet" href="/widget/weather/weather.css">
    <link rel="stylesheet" href="/widget/search/search.css">
    <link rel="stylesheet" href="/widget/nav/nav.css">
    <link rel="stylesheet" href="/widget/hot/hot.css">
    <script src="/widget/weather/popup/popup.js"></script>
    <script src="/widget/weather/weather.js"></script>
    <script src="/widget/search/search.js"></script>
    <script src="/widget/nav/nav.js"></script>
    <script src="/widget/hot/hot.js"></script>
  </head>
  <body>
    <header>
      <link rel="import" href="widget/weather/weather.html">
      <span>{{username}}</span>
    </header>
    
    <section>
      <link rel="import" href="widget/search/search.html">
    </section>
    <section>
      <link rel="import" href="widget/nav/nav.html">
    </section>
    <section>
      <link rel="import" href="widget/hot/hot.html">
    </section>
  </body>
</html>
```

# 组件化的问题

## 资源加载

- 维护打包策略
- 资源冗余
- 缓存利用

```
<!DOCTYPE html>
<html>
  <head>
    <link rel="stylesheet" href="/pkg/weather.css">
    <link rel="stylesheet" href="/pkg/index.css">
    <script src="/pkg/weather.js"></script>
    <script src="/pkg/index.js"></script>
  </head>
  <body>
    <header>
      <link rel="import" href="widget/weather/weather.html">
      <span>{{username}}</span>
    </header>
    
    <section>
      <link rel="import" href="widget/search/search.html">
    </section>
    <section>
      <link rel="import" href="widget/nav/nav.html">
    </section>
    <section>
      <link rel="import" href="widget/hot/hot.html">
    </section>
  </body>
</html>
```

# 组件化的问题

这样的组件化太痛苦！



# 理想的组件化

## 组件复用

- 理想的组件化
  - 天气组件看起来不错
  - 新项目用一下
  - 搞定收工



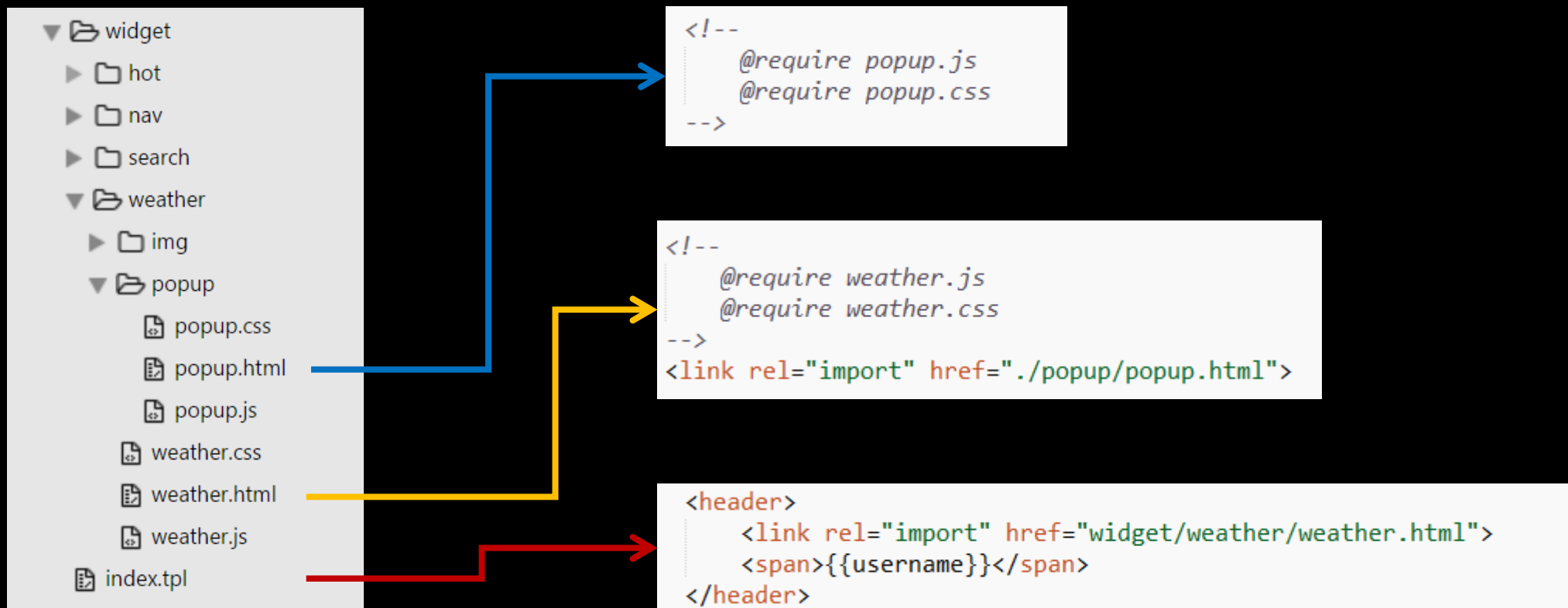
# FIS与组件化

## 总体思路

- 组件维护资源依赖
- 用构建解决路径问题
- 资源加载自动化

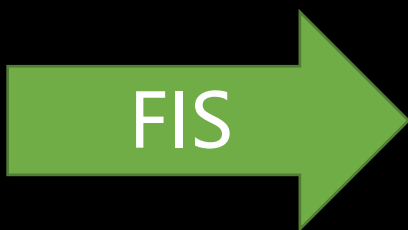
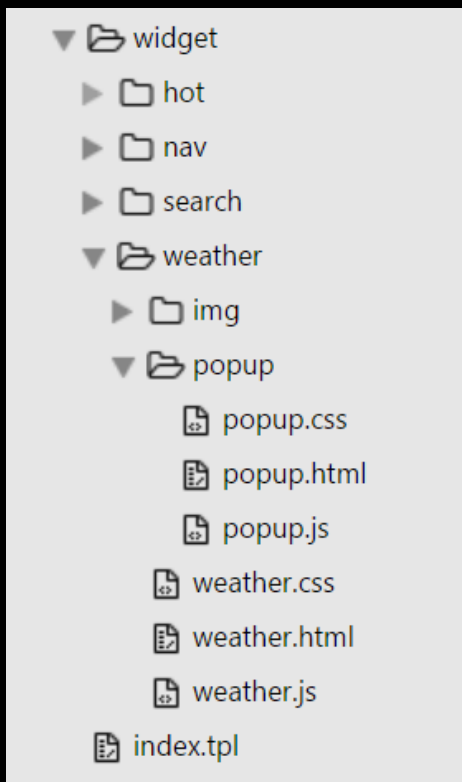
# FIS与组件化

## 组件维护资源依赖



# FIS与组件化

## 组件维护资源依赖



```
{
  "res": {
    "index.html": {
      "deps": [
        "widget/weather/weather.js",
        "widget/weather/weather.css",
        "widget/weather/popup/popup.js",
        "widget/weather/popup/popup.css"
      ]
    },
    "widget/weather/popup/popup.html": {
      "deps": [
        "widget/weather/popup/popup.js",
        "widget/weather/popup/popup.css"
      ]
    },
    "widget/weather/weather.html": {
      "deps": [
        "widget/weather/weather.js",
        "widget/weather/weather.css",
        "widget/weather/popup/popup.js",
        "widget/weather/popup/popup.css"
      ]
    }
  }
}
```



# FIS如何解决组件化问题

## 按需加载

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
</head>
```

```
<body>
```

```
<header>
```

```
<link rel="import" href="widget/weather/weather.html">
```

```
<span>{{username}}</span>
```

```
</header>
```

```

```

```
<section>
```

```
<link rel="import" href="widget/search/search.html">
```

```
</section>
```

```
<section>
```

```
<link rel="import" href="widget/nav/nav.html">
```

```
</section>
```

```
<section>
```

```
<link rel="import" href="widget/hot/hot.html">
```

```
</section>
```

```
</body>
```

```
</html>
```

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<link rel="stylesheet" href="/widget/popup/popup.css">
```

```
<link rel="stylesheet" href="/widget/weather/weather.css">
```

```
<link rel="stylesheet" href="/widget/search/search.css">
```

```
<link rel="stylesheet" href="/widget/nav/nav.css">
```

```
<link rel="stylesheet" href="/widget/hot/hot.css">
```

```
<link href="widget/weather/weather.html" rel="import">
```

```
</link>
```

```
alt="logo"/>
```

```
<link href="widget/search/search.html" rel="import">
```

```
<link href="widget/nav/nav.html" rel="import">
```

```
<link href="widget/hot/hot.html" rel="import">
```

```
<script src="/widget/popup/popup.js"></script>
```

```
<script src="/widget/weather/weather.js"></script>
```

```
<script src="/widget/search/search.js"></script>
```

```
<script src="/widget/nav/nav.js"></script>
```

```
<script src="/widget/hot/hot.js"></script>
```

```
</html>
```

```
"res": {
```

```
"index.html": {
```

```
"deps": [
```

```
"widget/weather/weather.js",
```

```
"widget/weather/weather.css",
```

```
"widget/weather/popup/popup.js",
```

```
"widget/weather/popup/popup.css"
```

```
]
```

```
},
```

```
"widget/weather/popup/popup.html": {
```

```
"deps": [
```

```
"widget/weather/popup/popup.js",
```

```
"widget/weather/popup/popup.css"
```

```
]
```

```
},
```

```
"widget/weather/weather.html": {
```

```
"deps": [
```

```
"widget/weather/weather.js",
```

```
"widget/weather/weather.css",
```

```
"widget/weather/popup/popup.js",
```

```
"widget/weather/popup/popup.css"
```

```
]
```

```
}
```

```
}
```

# 完善的组件生态

解决组件直接相互配合问题！

# 组件生态的问题

- 组件依赖问题
- 性能
- 资源路径以及使用
- 版本管理以及批量更新

# 组件生态

- 美女，哥看你的拖动组件不错哦！
  - 我可以用一下来
  - 欢迎使用
  - pure install drag && require("drag.js")
  - 出来啦



# 如何解决组件生态问题

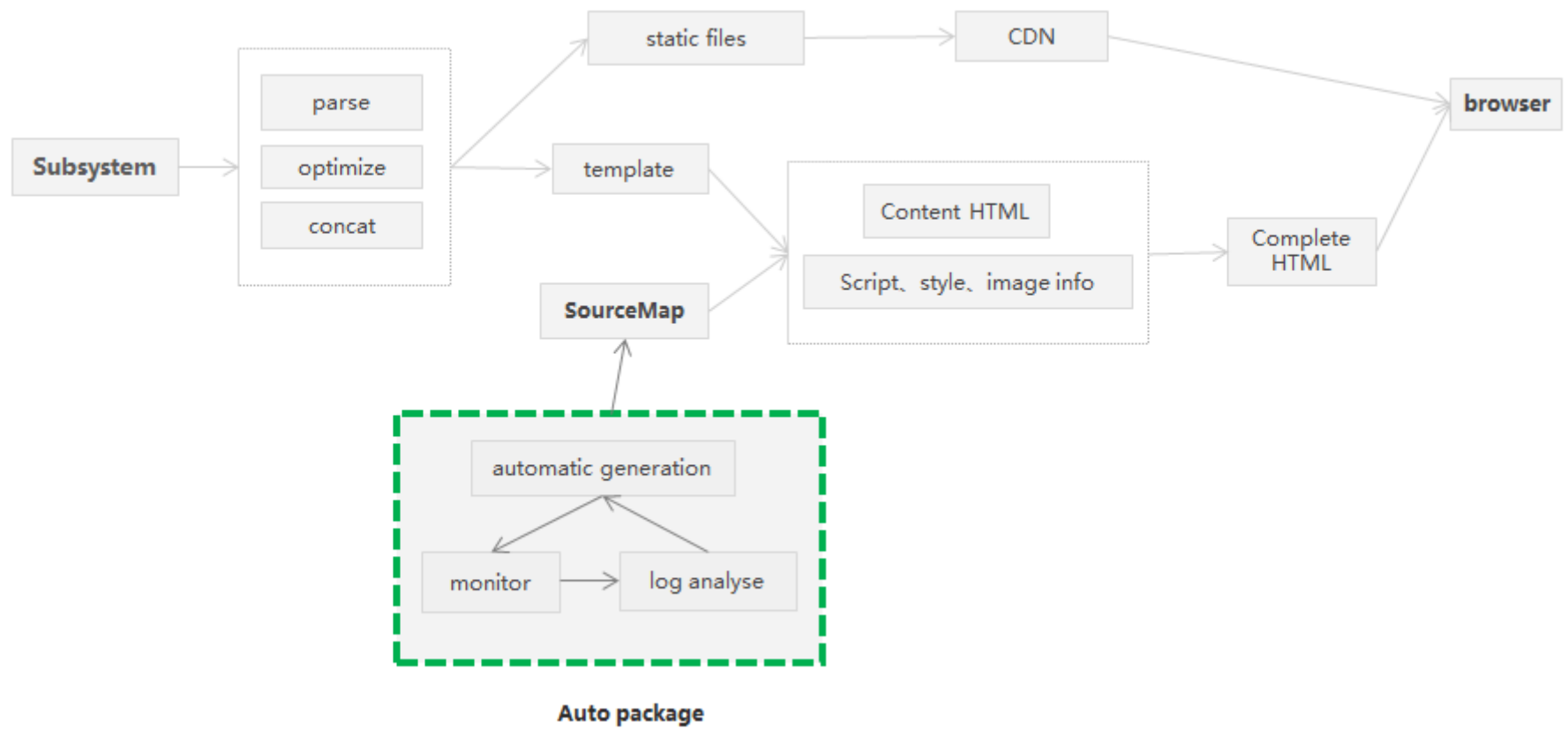
`fis-components` = 类npm + 本地编译结合

# 静态资源合并



# 静态资源合并

- 手工配置静态资源
- 离线自动配置
- 线上combo
- 线上按需实时调整静态资源





# 动态化html


WRITE LESS, attention LESS DO  
MORE!



大家好，我是小布，产品的需求都在这里

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 新浪微博 +

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腾讯课堂官方微信



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```

1  <!DOCTYPE html>
2  <html>
3  <head>
4      <meta http-equiv="Content-Type" content="text/html; charset=UTF-8" />
5      <meta http-equiv="X-UA-Compatible" content="IE=edge,chrome=1">
6      <meta name="renderer" content="webkit|ie-comp|ie-stand">
7      <meta name="keywords" content="腾讯课堂,远程教育,视频课程,腾讯在线教育,腾讯教育,腾讯在线课堂,QQ在线
      教育,QQ教育,免费课,公开课,在线学习">
8      <meta name="description" itemprop="description" content="腾讯推出的专业在线教育平台。依托QQ群视频和
      腾讯视频直播能力,实现老师在线上课教学,学生即时互动学习的课堂。下设职业培训、公务员考试、托福雅思、
      考证考级、英语口语、中小学教育等众多分类课程。">
9      <meta itemprop="name" content="腾讯课堂">
10     <meta itemprop="image" content="http://9.url.cn/edu/img/logo_pc_rich.png"/>
11     <title>腾讯课堂-专业的在线教育平台</title>
12     <script>
13         var T = [new Date()-0];
14         window.categoryInfos = '$type_list';
15     </script>
16     <script src="js/common/pcToMobile.js?__inline"></script>
17     <link rel="dns-prefetch" href="http://7.url.cn">
18     <link rel="dns-prefetch" href="http://8.url.cn">
19     <link rel="dns-prefetch" href="http://9.url.cn">
20     <link rel="stylesheet" href="css/common.css" />
21     <link rel="stylesheet" href="css/index_refactor.css" />
22     <link rel="shortcut icon" href="img/favicon.ico"/>
23 </head>
24 <body>
25
144 </div>
145
146 <script>
147     var inline_script_start = new Date;
148     var page_render_fp_time = +new Date;
149 </script>
150 <inline src="scriptStart.html" />
151 <script src="js/common/require.config.js?__inline"></script>
152 <script>
153     TRecord.cfg.url="flag1=7832&flag2=39&flag3=13";
154     TRecord.push('inline_script_run_time', T[0] + (new Date - inline_script_start));
155     TRecord.push("page_render_fp", page_render_fp_time);
156 </script>
157
158 <script src="http://7.url.cn/edu/jslib/requirejs/2.1.6/require.min.js"></script>
159 <script src="http://7.url.cn/edu/jslib/jquery/1.9.1/jquery.min.js"></script>
160 <script src="js/common/base.js"></script>
161 <script src="js/index.v2/main.js"></script>
162
163 <inline src="scriptEnd.html" />
164
165 </body>
166 </html>
167 #else
168 <inline ../404.html>
169 #end


```

```

1  <!DOCTYPE html>
2  <html>
3  <head>
4      <meta http-equiv="Content-Type" content="text/html; charset=UTF-8" />
5      <meta http-equiv="X-UA-Compatible" content="IE=edge,chrome=1">
6      <meta name="renderer" content="webkit|ie-comp|ie-stand">
7      <meta name="keywords" content="
8          腾讯课堂,远程教育,视频课程,腾讯在线教育,腾讯教育,腾讯在线课堂,QQ在线教育,QQ教育,免费课,公开课,在线学习">
9      <meta name="description" itemprop="description" content="腾讯推出的专业在线教育平台。依托QQ群视频和腾讯视频直播
10         能力,实现老师在线上教学,学生即时互动学习的课堂。下设职业培训、公务员考试、托福雅思、考证考级、英语口语、中
11         小学教育等众多分类课程。">
12      <meta itemprop="name" content="腾讯课堂">
13      <meta itemprop="image" content="http://9.url.cn/edu/img/logo_pc_rich.png"/>
14      <title>腾讯课堂-专业的在线教育平台</title>
15      <script>
16          var T = [new Date().0];
17          window.categoryInfos = '$type_list';
18      </script>
19      <script src="js/common/pcToMobile.js?__inline"></script>
20      <link rel="dns-prefetch" href="http://7.url.cn">
21      <link rel="dns-prefetch" href="http://8.url.cn">
22      <link rel="dns-prefetch" href="http://9.url.cn">
23      <link rel="stylesheet" href="css/common.css" />
24      <link rel="stylesheet" href="css/index_refactor.css" />
25      <link rel="shortcut icon" href="img/favicon.ico"/>
26  </head>
27  <body>
28      <!-- 包含头部进来-->
29      <div class="mod-header__wrap" id="js_main_nav">
30          <div class="mod-header mod-header-inner mod-header-inner-1200 mod-header-show-tab clearfix">
31              <inline src="inline/header.html" />
32          </div>
33      </div>
34
35      <!-- 包含尾部进来-->
36      <inline src="inline/footer.html" />
37
38      <inline src="scriptStart.html" />
39
40      <script src="js/common/require.config.js?__inline"></script>
41
42      <script>
43          TRecord.cfg.url="flag1=7832&flag2=39&flag3=4";
44      </script>
45
46      <script src="js/common/require.js"></script>
47      <script src="http://1.url.cn/jslib/jquery/1.9.1/jquery.min.js"></script>
48      <script src="js/common/base.js"></script>
49      <script src="js/agencyBilling/main.js"></script>
50
51      <inline src="scriptEnd.html" />
52
53      <!-- endbuild -->
54  </body>
55
56  </html>
57

```

```
1 #extends("client:page/base/base.vm")
2   #block("layout")
3     <div class="text"> 大家好,我是小布,产品的需求都在这里 </div>
4   #end
5 #end
```



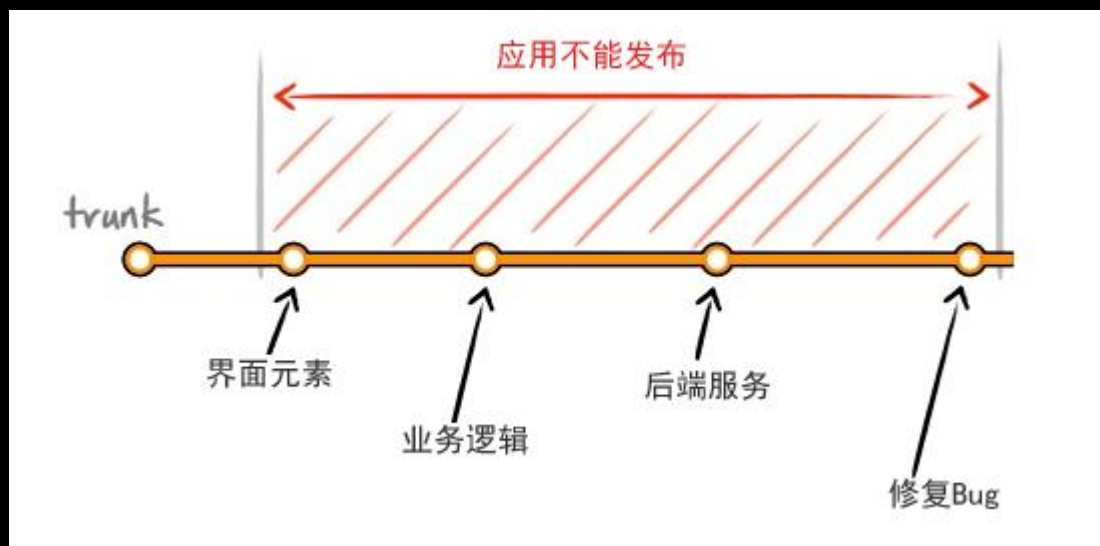
# 动态分析资源解合并

```
{
  "res": {
    "index.html": {
      "deps": [
        "widget/weather/weather.js",
        "widget/weather/weather.css",
        "widget/weather/popup/popup.js",
        "widget/weather/popup/popup.css"
      ]
    },
    "widget/weather/popup/popup.html": {
      "deps": [
        "widget/weather/popup/popup.js",
        "widget/weather/popup/popup.css"
      ]
    },
    "widget/weather/weather.html": {
      "deps": [
        "widget/weather/weather.js",
        "widget/weather/weather.css",
        "widget/weather/popup/popup.js",
        "widget/weather/popup/popup.css"
      ]
    }
  }
}
```

# 动态性能优化

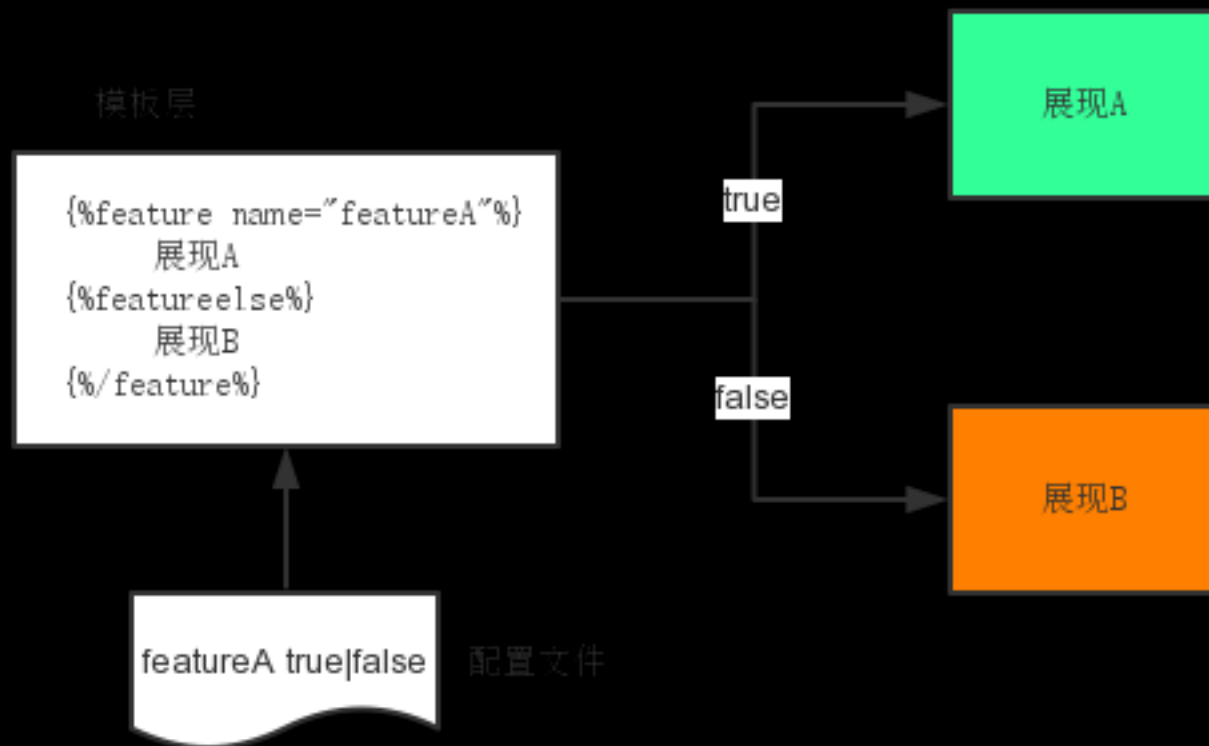
```
<%widget name="niaoge" pageletId="niaoge"  
condition="firstSreen"%>
```

# Feature Toggle





# Feature Toggle解决方案



More !

# 数据模拟



# 数据本地校验



# 本地环境一体化



Thanks

Q&A