The process of front-end custom development

- The front-end custom development is mainly to customize the ftl and js files corresponding to page, customizing the page meeting the practical business needs of the user. This document provides the following three cases, to assist application developers quickly in mastering the front-end custom development process.

  - Case 1, - Custom development of the front-end registration page
  - Case 2 - Custom development introduction of a portal home page
  - Case 3 - Extension developmentfront of front-end content of service metadata

- In the custom development, if users want to fast locate to the ftl and js files corresponding to current page, there are two following ways:

  - Right clicking in the current page, select " view page source code ", the introduction of the ftl and js are located in the comments at the top of <head> tag
  - Users can press F12 to open the console, users need to click the "script" in Firefox or IE explorer, and to click the "Elements" in Chrome.

- The js files corresponding to front-end page is located in the portal and porta-src folders under the /staticFiles directory of 【SuperMap iPortal product directory】 /webapps/iportal/WEB-INF/lib/ iportal-all-*.jar, in which:

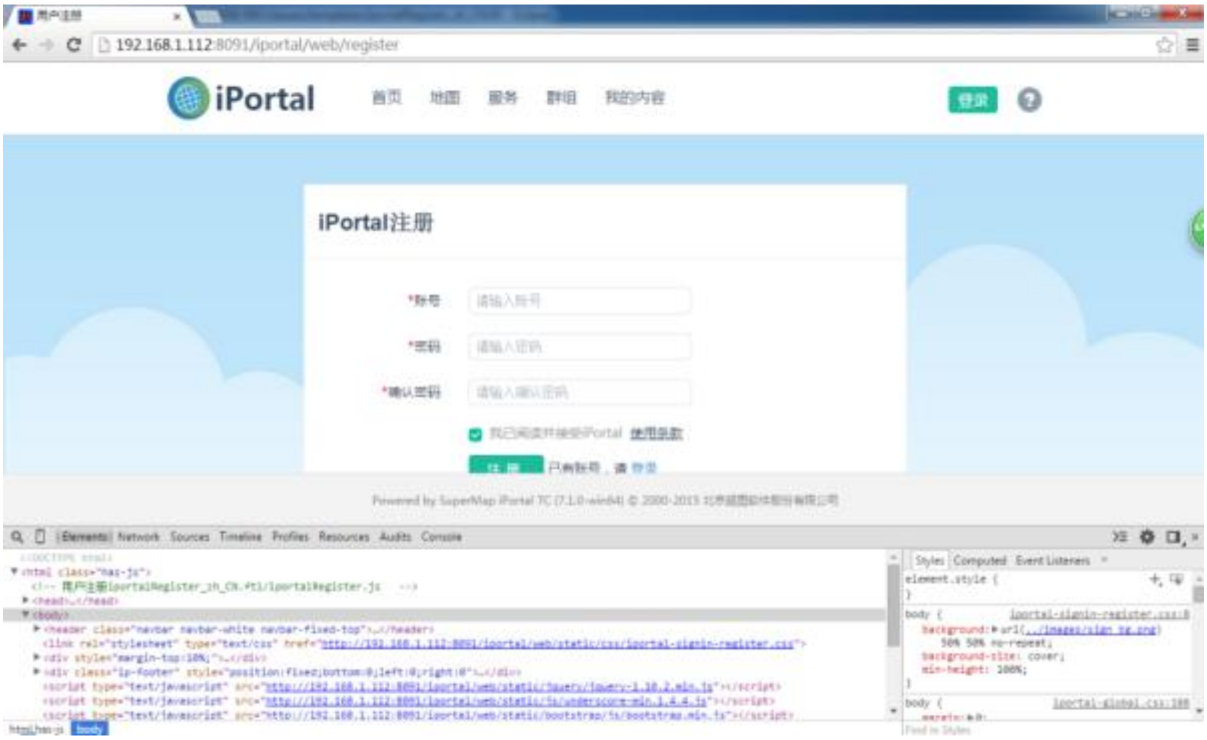
  - portal folder: Storing the js files used for iPortal service, which are compressed, iPortal uses the js files under this folder by default.
  - portal-src folder: Storing js source code files, which are not compressed, when you are customizing front-end page, you can directly modify the source code files under the folder.

- **Note**:

- If the js source code files you modify are in the portal-src folder, after completely modifying, you need to delete the above portal folder or rename it as other name, for example: portal-bak, then rename the portal-src folder as portal, at this time iPortal service will use the modified js files.

Case 1. front-end registration page custom development

View the instructions for ftl and js in the comments above the <head> tag. As shown below:



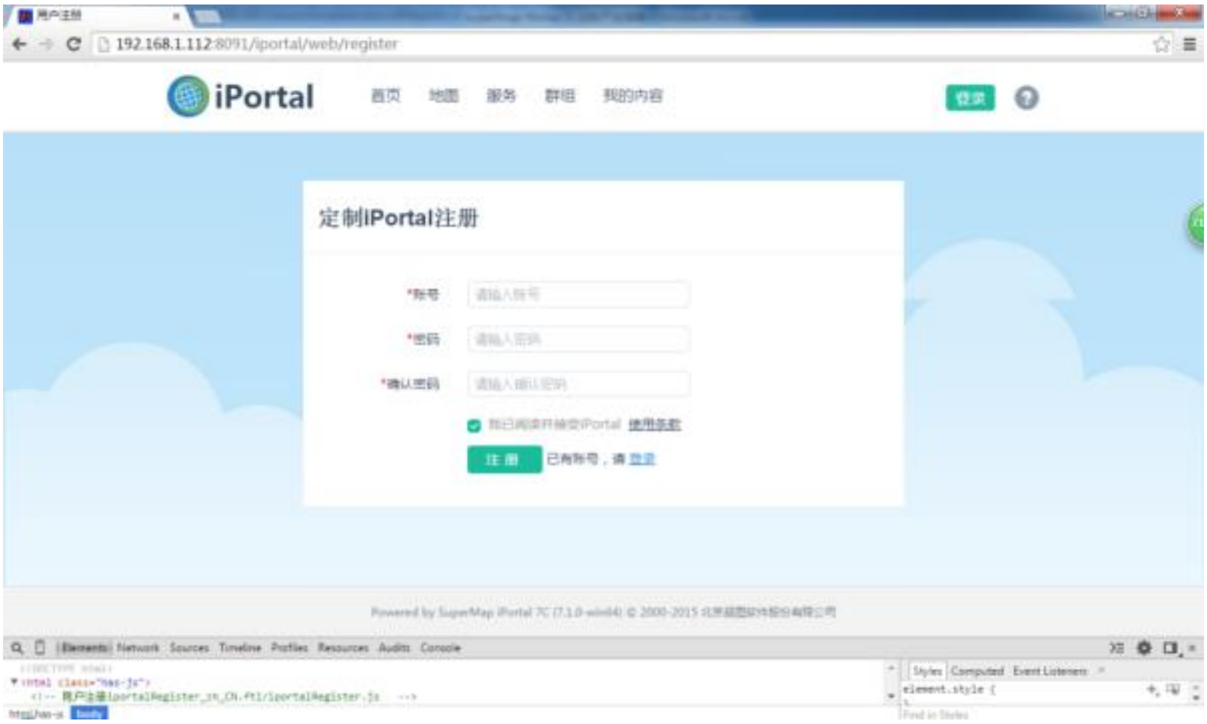
```
<!DOCTYPE html>
▼<html class="has-js">
   <!-- 用户注册iportalRegister_zh_CN.ftl/iportalRegister.js  -->
  ▶<head>…</head>
  ▼<body>
    ▶<header class="navbar navbar-white navbar-fixed-top">…</header>
     <link rel="stylesheet" type="text/css" href="http://192.168.1.112:8091/iportal/web/static/css/iportal-signin-register.css">
    ▶<div style="margin-top:10%;">…</div>
    ▶<div class="ip-footer" style="position:fixed;bottom:0;left:0;right:0">…</div>
     <script type="text/javascript" src="http://192.168.1.112:8091/iportal/web/static/jquery/jquery-1.10.2.min.js"></script>
     <script type="text/javascript" src="http://192.168.1.112:8091/iportal/web/static/js/underscore-min.1.4.4.js"></script>
     <script type="text/javascript" src="http://192.168.1.112:8091/iportal/web/static/bootstrap/js/bootstrap.min.js"></script>
```

```
element.style {
}
body {                         iportal-signin-register.css:8
   background: ▶url(../images/sign_bg.png)
       50% 50% no-repeat;
   background-size: cover;
   min-height: 100%;
}
body {                              iportal-global.css:108
   margin: ▶0;
```

As shown in the above figure, iportalRegister_zh_CN.ftl is the template of the registration page. Open the iportalRegister_zh_CN.ftl file in the Custom_Portal \ WebContent \ WEB-INF \ classes \ templates directory in Eclipse, modify the class = "signin-register The value of the "-title" element is custom iPortal registration, as follows:

```
<div class="row">
     <h3 class="signin-register-title">Custom iPortal registration</h3>
</div>
```

In Eclipse, click Save, right-click the project name, select "Refresh", refresh the project, and then refresh the page, you can see the effect shown in the following figu


用户注册
192.168.1.112:8091/iportal/web/register
iPortal
首页
地图
服务
群组
我的内容
登录
定制iPortal注册
*账号
请输入账号
*密码
请输入密码
*确认密码
请输入确认密码
我已阅读并接受iPortal 使用条款
注 册
已有账号，请 登录
Powered by SuperMap iPortal 7C (7.1.0-win64) © 2000-2015 北京超图软件股份有限公司
Elements Network Sources Timeline Profiles Resources Audits Console
Styles Computed Event Listeners
element.style {
Find in Styles

```
<!DOCTYPE html>
▼<html class="has-js">
  <!-- 用户注册iportalRegister_zh_CN.ftl/iportalRegister.js -->
```

If you need to modify the registration page js file, you can directly in the Eclipse Custom_Portal \ WebContent \ WEB-INF \ classes \ staticFiles \ portal-src \ js \ user directory iportalRegister.js file, modify the corresponding content.

After the modification is complete, you need to delete or rename the portal folder in the Custom_Portal \ WebContent \ WEB-INF \ classes \ staticFiles directory to another name, for example, portal-bak, and then rename the portal-src to portal.

note:

Suggest changing iPortal ftl and js source code when custom development if the change is small; if change is big you best to create a new folder, write a separate ftl and js file into it, and then in the iPortal source code introduced (ftl File using <#include> introduction, js file using <script> introduction), this can be a certain degree of convenience for iPortal upgrades and maintenance in the future .

Case 2. Portal home page custom development instructions

- What can be customized by portal home includes: regular content, navigation settings, rotation settings, quick links, popular maps, the latest services, can also customize theme style by modifying the css file , custom page Title by modifying the js file, specific please See : Home page customization. SuperMap iPortal 8C (2017) Beta and later, provides a visual layout system, if you need to adjust the layout of the home page UI components, custom UI components, then you can directly in the visual layout system, adjust the layout of the various UI components in the home page through a simple drag, no need to write any code, you can also customize the components content according to business needs, see the specific: Home page customization.

- The following custom development instructions are for the version before SuperMap iPortal 8C (2017) Beta, in the absence of visual layout system, how to write their own source code to rewrite the content of portal home page, including: Home Contents How to match iPortal's default menu and version bar and the description of first page adding carousel components and customizing layout, of course, the following instructions are applicable for SuperMap iPortal 9D Beta and the latest version.

1. Home Contents How to match iPortal's default menu and version bar

- For example, if you want to rewrite the portal page and retain the iPortal's default menu bar and version bar, and add a custom module for the sample code, you can create a new iportalExample_zh_CN.ftl and the corresponding English module iportalExample.ftl file in the [Custom_Portal \ WebContent \ WEB-INF \ classes \ templates] And. Import iportalCommonMeta_zh_CN.ftl, iportalCommonLink_zh_CN.ftl, iportalHeader_zh_CN.fl, iportalFooter_zh_CN.ftl and the corresponding js file iportalHeader.js In these two documents. As shown in the following code:

```
<!DOCTYPE html>
<html>
    <head>
        <#include
 "iportalCommonMeta_zh_CN.ftl">
        <title></title>
        <#include
 "iportalCommonLink_zh_CN.ftl">
    </head>
    <body>
        <#include
 "iportalHeader_zh_CN.ftl">
        <div
 class="container">Customize the module content area</div>
        <#include
 "iportalFooter_zh_CN.ftl">
        <script
 type="text/javascript" src="${simpleRootPath}/static/jquery/jquery-
1.10.2.min.js"
 ></script>
        <script
 type="text/javascript"
src="${simpleRootPath}/static/bootstrap/js/bootstrap.min.js"
 ></script>
        <script
 type="text/javascript" src="${simpleRootPath}/static/js/underscore-
min.1.4.4.js"></script>
        <script
 type="text/javascript" src="${simpleRootPath}/static/js/backbone-
min.js"></script>
        <script
 type="text/javascript"
src="${simpleRootPath}/static/js/iportalHeader.js"></script>
    </body>
</html>
```

2. Home Page Add Carousel Component

- The content of rotation includes:

- Rotation background color: As the current screen resolution is more and more widely, it is recommended that the width of the rotation picture is set to 960px, the height is freely defined, and the extra part of the picture is filled with the background color matching the rotation picture. The carousel background color needs to be set by the user in the page element style.

- Rotation picture: width is recommended to be set 960px, the height 370px, they can also be customized.
- Rotation area description or hyperlink: Add a description or an address to be linked for each picture you want to rotate. Of course, if only exists the description of information, you can also design the description to the picture of rotation by artists.

- The example code is as follows, make sure to import the bootstrap.min.css and bootstrap.min.js files.

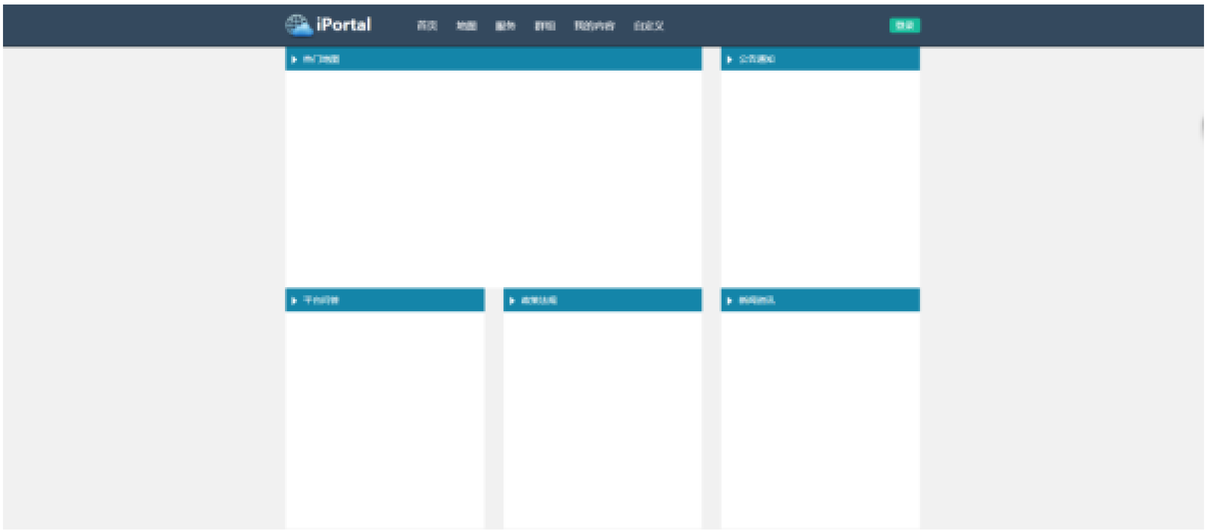
```
<style type="text/css">
.carousel_bg_1 {
height: 370px;
width: 100%;
background: url(Add the image path required for the rotation,  for example: "../img/home/carousel_1_bg.png")
 repeat-x;
}
.carousel_bg_2 {
height: 370px;
width: 100%;
background: url("Here to add the required image path of the roation,  for example:"../img/home/carousel_2_bg.png")
 repeat-x;
}
.carousel_bg_3 {
height: 370px;
width: 100%;
background: url("Here to add required image path of roation,  for example:../img/home/carousel_3_bg.png")
 repeat-x;
}
.content {
width: 960px;
height: 370px;
margin: 0 auto;
}
.content img {
max-width: 960px;
max-height: 370px;
}
</style>
<div id="carousel-images" class="carousel
 slide" data-ride="carousel">
<ol class="carousel-indicators">
<li data-target="#carousel-images" data-slide-to="0"
 class="active"></li>
<li data-target="#carousel-images" data-slide-to="1"
 class=""></li>
<li data-target="#carousel-images" data-slide-to="2"
 class=""></li>
</ol>
<div class="carousel-inner" role="listbox">
<div class="item active">
<div class="carousel_bg_1">
```

```
<div class="content">
<!--Here to add the image path required for the rotation,  for
example: ../img/home/carousel_bg_*.jpg -->
<img src="">
<!-- If you need to add a description or hyperlink to the roation,  add a div
node with a carousel-caption class. Please fill in the details.
Otherwise,  delete the div node
 -->
<div class="carousel-caption">
            <h3>The title of  first carousel picture</h3>
            <p>The description of the first carousel picture</p>
            <!-- Or a hyperlink
  -->
            <a
 href="#">Hyperlink information</a>
        </div>
</div>
</div>
</div>
<div class="item">
<div class="carousel_bg_2">
<div class="content">
<!--Here to add the required image path of the rotation,  for
example:./img/home/carousel_2.jpg -->
<img src=""></div>
</div>
</div>
<div class="item">
<div class="carousel_bg_3">
<div class="content">
<!--Here to add therequired image path of rotation,  for
example:./img/home/carousel_3.jpg -->
<img src=""></div>
</div>
</div>
</div>
</div>
```

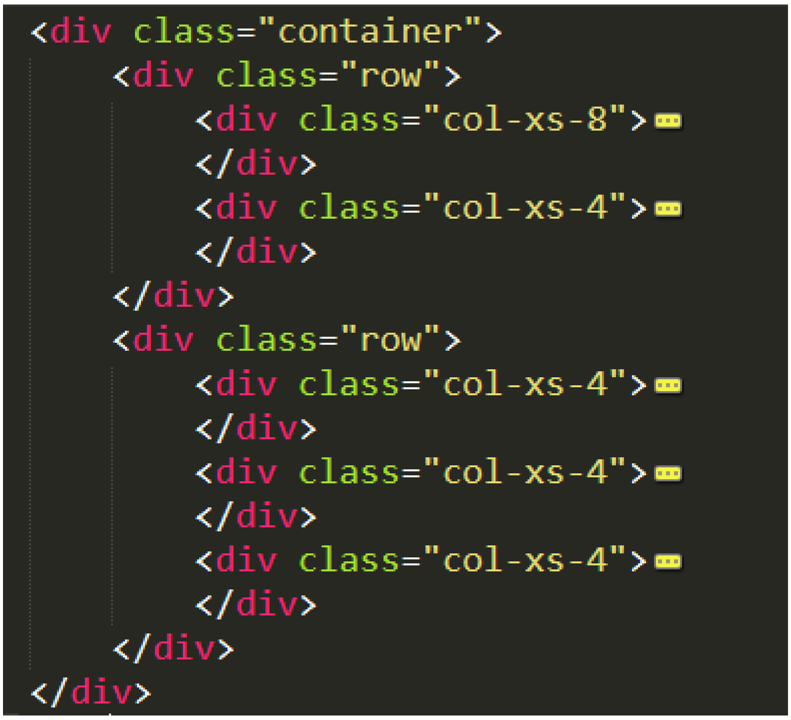
- among them:
    - carousel_bg _ * (1, 2, 3 is the height of a pixel width of 370 pixels designed according to the rotation picture)
    - .content .content img is the style control for the rotation picture
    - The class attribute carousel of the div whose id is carousel-imagesclass enable rotation, slide attribute is the animation effect of enabling rotation, data-ride = "carousel" is the initialization roation component after the initialization of the page. If you do not have this attribute, call $ ('carousel'). Carousel ().

3. Customize the layout

- As shown below, achieve the effect of 960 pixels wide and centered display:



- Corresponding html basic structure as shown below:



```
<div class="container">
    <div class="row">
        <div class="col-xs-8">⋯
        </div>
        <div class="col-xs-4">⋯
        </div>
    </div>
    <div class="row">
        <div class="col-xs-4">⋯
        </div>
        <div class="col-xs-4">⋯
        </div>
        <div class="col-xs-4">⋯
        </div>
    </div>
</div>
```

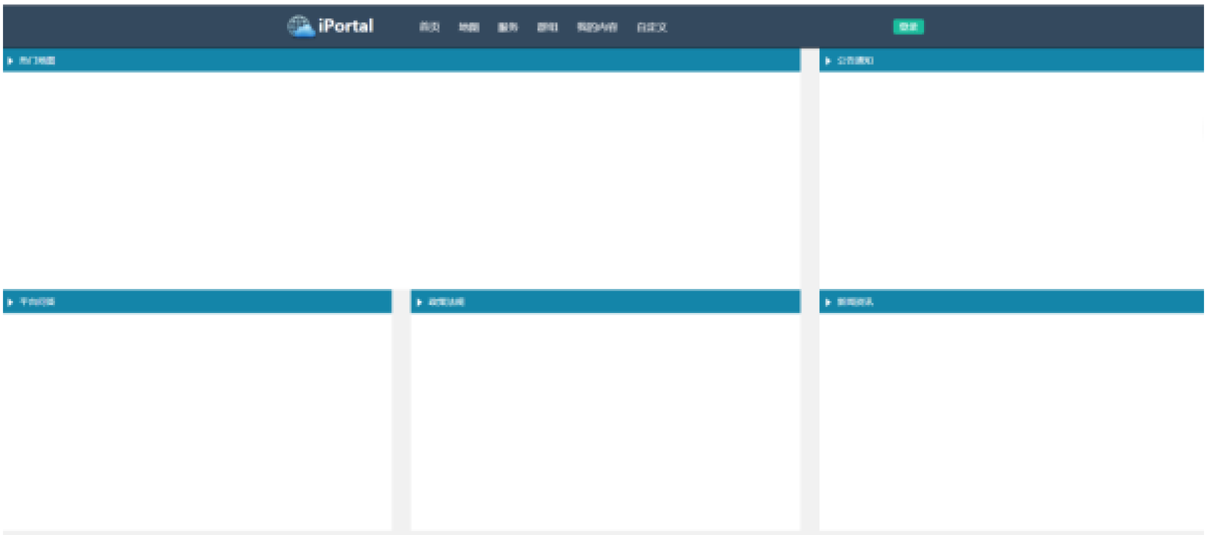
- The corresponding html code for the custom module is:

```
<div class="container">
    <div class="row">

        <div
 class="col-xs-8">
            <div
 style="width:100%;height:380px;background-color: #FFF;">
                <div
 style="background-color: #1485A9;width:100%;height: 37px;padding-top:
 10px;padding-left: 10px;">
                    <img
 src=""><!—Fill in the required image path here-->
                    <span
 style="color:#FFF;font-size: 14px;font-family: Microsoft ya
black'' !important;">Popular map</span>
                </div>
            </div>
        </div>
        <div
 class="col-xs-4">
            <div
 style="width:100%;height:380px;background-color: #FFF;">
                <div
 style="background-color: #1485A9;width:100%;height: 37px;padding-top:
 10px;padding-left: 10px;">
                    <img
 src=""><!—Fill in the required image path here-->
                    <span
 style="color:#FFF;font-size: 14px;font-family: 'Microsoft ya
black' !important;">Notice of Notice</span>
                </div>
            </div>
        </div>
    </div>
    <div class="row">

        <div
 class="col-xs-4">
            <div
 style="width:100%;height:380px;background-color: #FFF;">
                <div
 style="background-color: #1485A9;width:100%;height: 37px;padding-top:
 10px;padding-left: 10px;">
                    <img
 src=""><!—Fill in the required image path here-->
                    <span
 style="color:#FFF;font-size: 14px;font-family: Microsoft ya
black'' !important;">Platform Q & A</span>
                </div>
            </div>
        </div>
        <div
 class="col-xs-4">
            <div
 style="width:100%;height:380px;background-color: #FFF;">
                <div
 style="background-color: #1485A9;width:100%;height: 37px;padding-top:
 10px;padding-left: 10px;">
                    <img
 src=""><!—Fill in the required image path here-->
                    <span
 style="color:#FFF;font-size: 14px;font-family: 'Microsoft ya
black' !important;">Policies and regulations</span>
                </div>
            </div>
        </div>
        <div
 class="col-xs-4">
            <div
 style="width:100%;height:380px;background-color: #FFF;">
                <div
 style="background-color: #1485A9;width:100%;height: 37px;padding-top:
 10px;padding-left: 10px;">
```

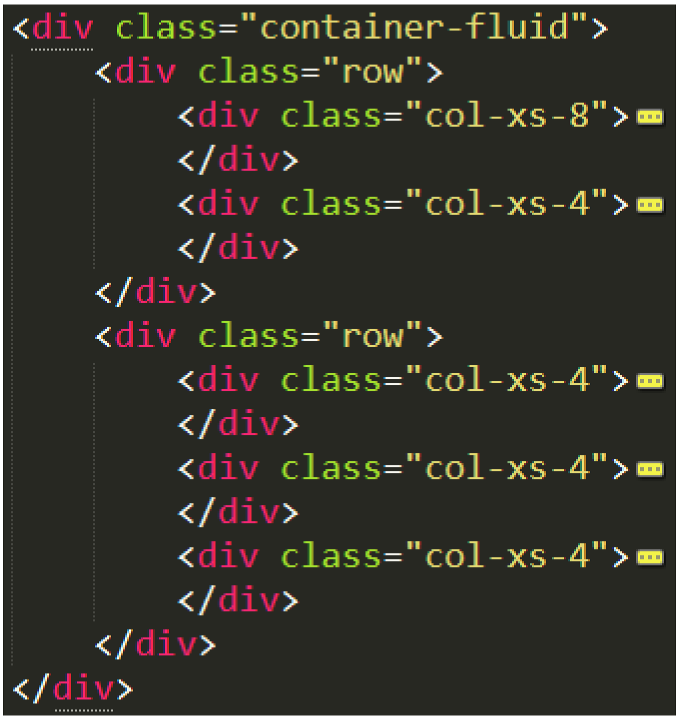
```
                    <img
 src=""><!—Fill in the required image path here-->
                    <span
 style="color:#FFF;font-size: 14px;font-family: 'Microsoft ya
black' !important;">news</span>
                </div>
            </div>
        </div>
    </div>
</div>
```

- Description: The row is displayed in row, the row is placed in the container of the container class, the first row is two columns, the second row is three columns, and the maximum width of each row is 12.s For the grid layout, please refer to bootstrap official website: http://v3.bootcss.com/css/#grid

- Bring the content to the entire screen, as shown below:



- To achieve full-screen layout, only the above code in the container class be modified to container-fluid class. Html structure as shown below:



```
<div class="container-fluid">
    <div class="row">
        <div class="col-xs-8">⋯
        </div>
        <div class="col-xs-4">⋯
        </div>
    </div>
    <div class="row">
        <div class="col-xs-4">⋯
        </div>
        <div class="col-xs-4">⋯
        </div>
        <div class="col-xs-4">⋯
        </div>
    </div>
</div>
```

- The corresponding html code for the custom module is:

```
<div class="container-fluid">
......
</div>
```

Case 3. Extending matadata of services in front-end

- When registering services in the iPortal portal, metadata information for the input service is supported to facilitate querying and managing the registration service. When the metadata item provided in the front-end registration service page does not meet your actual project requirements, you can extend the metadata information for the service by adding metadata items to the registration service page.

- The following is a new "resRefDate" metadata field, for example, in the metadata standard is defined as: relevant date of reference data, in detail for you how to extend the service in the iPortal portal metadata information.

1. The new metadata information must be in fields of com.supermap.services.metadata.smmd2007.Metadata, and then support the extension, you can directly query iPortal online help Javadoc, the meaning of the field and its parent can access metadata standard: <National Standard of the People's Republic of China GB T 19710-2005 Geographic Information Metadata .pdf>, Metadata class provided by iPortal is a subset of this standard.

2. Edit source code file extension service metadata information, the front pages which registration services relate to include:

    - iportalServiceRegister_zh_CN.ftl: register the service page

  - iportalServiceDetail_zh_CN.ftl: the service details page
  - metadata.js: Metadata file for parsing user input

- After you find the "resRefDate" meta data field in com.supermap.services.metadata.smmd2007.Metadata, you can do the following:

- **Edit the metadata.js source file**

- The metadata.js source file is located in the / staticFiles / portal-src / js / service folder in the iportal-all - *. jar directory in the [SuperMap iPortal product directory] / webapps / iportal / WEB-INF / lib directory.

- In the metadata.js source file, you need to write the new "resRefDate" metadata field to the following two methods:

  - root._getMetadataInfo = function(): used to generate metadata objects and assignme
  - root.getMetadataInfo = function(editOrView): used to get front-end input metadata information and passed to the back-end

- **first step**: generates the "resRefDate" meta data object and assigns the "resRefDate" metadata information in the metadata.set function in the root._getMetadataInfo = function () method.

- Before writing, you need to first confirm that the function already has the metadata information, if it already exists can skip this step directly into the second step, if not, you need to query the metadata of the parent class who (Which can be queried in the metadata standard) and then write the metadata information in its parent class. For example: "resRefDate" metadata parent class is "idCitation", then in the metadata.set function to find the parent class "idCitation", you can directly in the "idCitation" parent class write "resRefDate" metadata information, the code is as follows :

```
idCitation: new Metadata.Smmd2007Template.DataIdInfo.DataIdent.IdCitation({
  ......
  resRefDate: new Metadata.Smmd2007Template.DataIdInfo.DataIdent.IdCitation.ResRefDate({
    refDate: $("#txtREFDATE").val(),
    refDateType: $("#txtRefDateType").val()
    })
```

- among them:

  - resRefDate: metadata name
  - refDate: field name in the metadata, where the "txtREFDATE" parameter in parentheses is: txt + the field name, the parameter passed to the front end
  - refDateType: field name in the metadata, where the "txtRefDateType" parameter in parentheses is: txt + the field name, the parameter passed to the front end

- **The second step**: Get the front-end input "resRefDate" metadata information and pass to the backend, that is, in the root.getMetadataInfo = function (editOrView) method in the metadata.set function to write "resRefDate" metadata information, the method with the first step, the code reads as follows:

```
 idCitation: new this.Metadata.Smmd2007Template.DataIdInfo.DataIdent.IdCitation({
......
resRefDate: new this.Metadata.Smmd2007Template.DataIdInfo.DataIdent.IdCitation.ResRefDate({
refDate: $("#txtREFDATE").val(),
refDateType: $("#txtRefDateType").val()
})
```

- **third step**: after the modification is complete, you need to delete or rename the portal folder in the / staticFiles directory of the iportal-all - *. Jar in the [SuperMap iPortal product directory] / webapps / iportal / WEB-INF / lib directory, For example: portal-bak, and then rename the folder portal-src to portal.

- **Edit the iportalServiceRegister_zh_CN.ftl source file**

- Modify the front-end registration service page, the source file for the iportalServiceRegister_zh_CN.ftl, located in the [SuperMap iPortal product directory] / webapps / iportal / WEB-INF / lib directory iportal-all - *. Jar / templates folder. In the "Metadata Information" tab in the "fax" content and its input text box, followed by "update date" content and enter the text box, the code is as follows:

```
<tr>
<td class="text-right col-xs-p12">Updated:</td>
<td><input id="txtREFDATE"  type="text" class="form-control ip-input-txt col-xs-4" ></td>
</tr>
```

- Where the id value is the value in parentheses in the "refDate" field in the first step: "txtREFDATE".

- **Edit the iportalServiceDetail_zh_CN.ftl source file**

- Modify the service details page, the source file for the iportalServiceDetail_zh_CN.ftl, located in the [SuperMap iPortal product directory] / webapps / iportal / WEB-INF / lib directory iportal-all - *. Jar in the / templates folder. The page contains two parts: service metadata editing and service details, you need to modify the two parts at the same time, respectively, in the "fax" content and its input text box, plus "update date" content and enter the text box , The code is as follows:

- service metadata editing section:

```
<td class="text-right">Updated date:</td>
<td>
<input value="${( pmd.metadata.dataIdInfo.dataIdent.idCitation.resRefDate.refDate)!""}" id="txtREFDATE"
type="text" class="form-control ip-input-txt" style="width:265px">
```

```
</td>
```

- Service details section:

```
<tr>
<td class="text-right vt" style="width: 15%;">Updated date:</td>
<td style="width:85%;">${(pmd.metadata.dataIdInfo.dataIdent.idCitation.resRefDate.refDate)!""}</td>
</tr>
```

3. Verification of results

- Restart the iPortal service. On the Metadata tab of the Registration Services page, the newly added metadata item is displayed, such as the date of the update and the date of the update. After the service registration is completed, the updated date will be displayed on the service details page.