

# ISG-2.56: iShare GIS for Administrators

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## 1. Introduction

This module aims to supplement the *iShare for Administrators* module with content which is specific to iShare GIS. It will normally be undertaken in conjunction with that module, and also assumes that trainees have taken the *iShare GIS for Users* module. The URL for the application on Astun's standard training instances is <http://localhost/iShareGISLIVE.Web/iSharegis.aspx>.

## 2. Managing User Access Using Roles

iShare GIS can be used to control the display of information that is sensitive, or which requires filtering from general use. For example locations of domestic abuse crimes should not be widely available, and detailed planning applications should only be available to those in the planning department. The mechanism which iShare uses to do this is *Roles*.

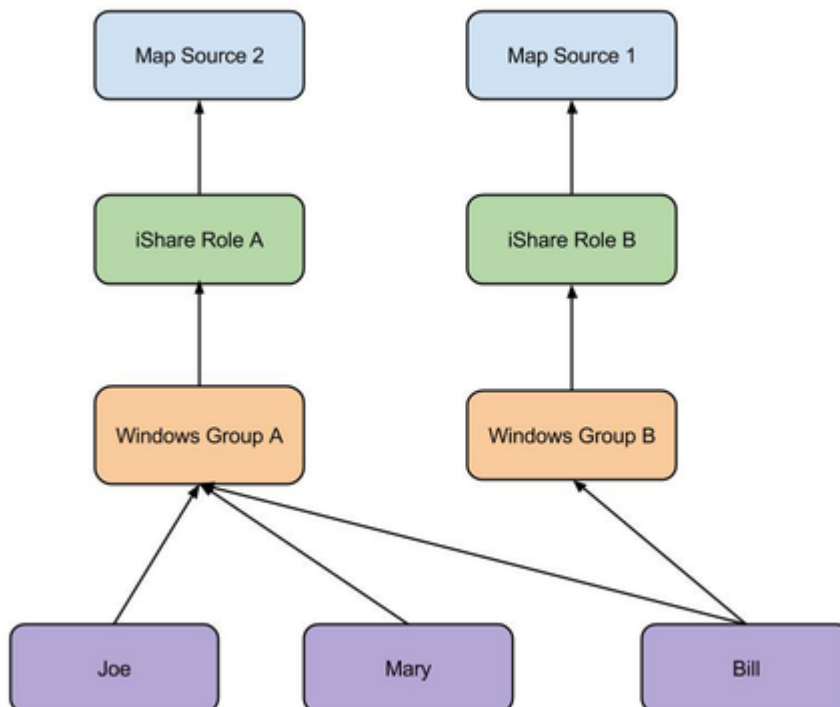
- Roles can be allocated to map sources, with the result that those map sources are only visible to users who have the required Role.
- You can also link a Role to an individual OGC layer to allow users with the Role to edit the layer.
- Allocation of Roles made by linking the Role to local (to the server) Windows Groups.
- Members of the groups then have the Roles which are linked to the group.

For example, if you wanted to allow only members of the Planning team to view planning data, you would:

- In iShare, create a 'Planning' map source and the required layers within it
- In Windows, create a local Windows Group, e.g. 'Planning Users', and add to it the Windows users or groups who need access to the data
- In iShare, create a role e.g. 'Planning Users', and link it to the Windows Group 'Planning Users'
- In iShare, allocate the 'Planning Users' role to the Planning map source
- To allow users to edit layers in Planning, you would add the Role to the specific layers

In the example below:

- Joe, Mary and Bill have access to Map Source 2
- Only Bill has access to Map Source 1



Note that:

- A map source can be accessible by more than one Role
- A Role can only be linked to one Windows Group

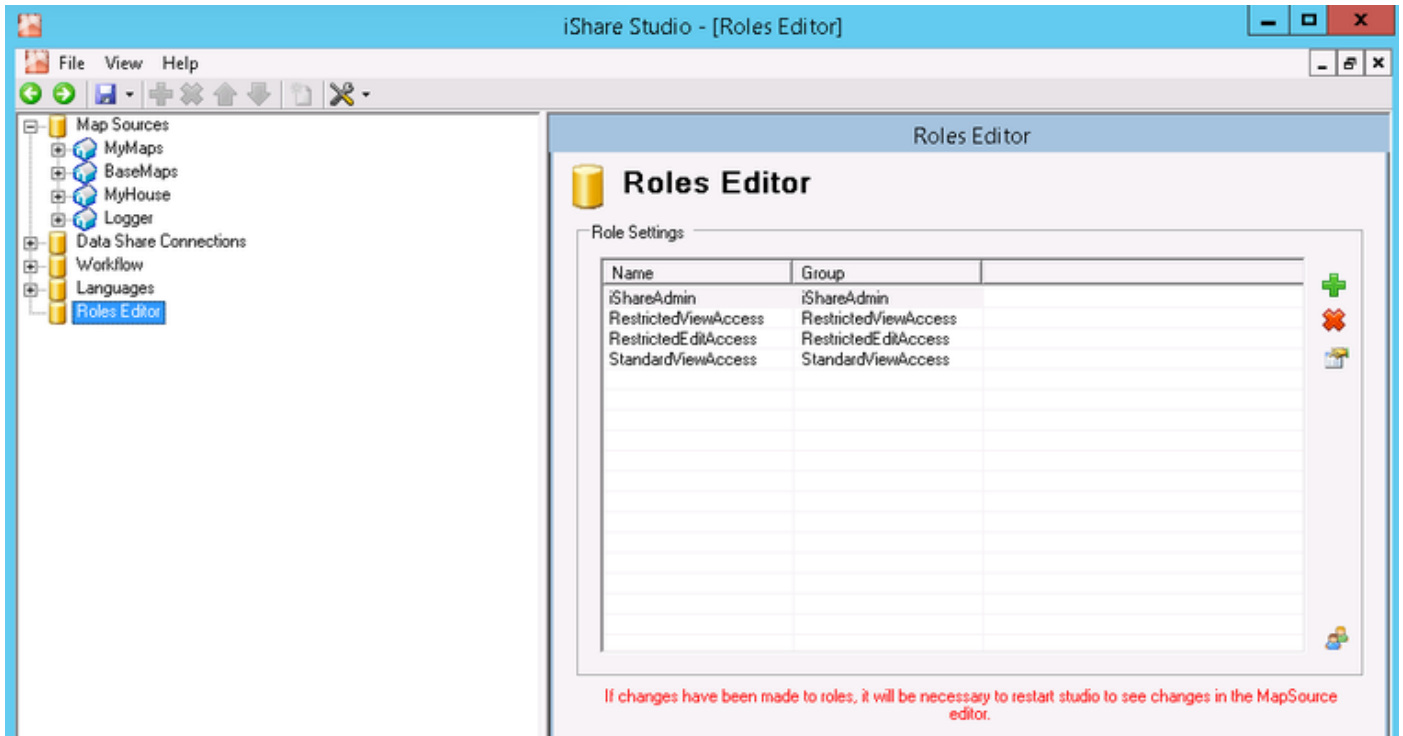
There are some important points to understand when managing Roles:




- iShare uses Windows Active Directory (or an equivalent authentication mechanism) to determine group membership, and hence to determine whether to allow the current user access to map sources
- In the iShare GIS web interface, map sources correspond to **Profiles**
- If no Roles are allocated to a map source, it will be visible to all users
- As soon as one or more Roles are allocated to a map source, it is only visible to users with those Roles
- The default map source should not have Roles allocated to it
- Members of the iShareAdmin group will be able to see all map sources
- Default Windows Groups such as **Administrators, Guests, Remote Desktop Users**, etc. **should not** be used as bases for iShare Roles. This is because Microsoft .NET may not list an Active Directory User as belonging to these Groups on the iShare Web Service server but only as belonging to them on the Domain. This means that the user will not belong to the Role(s) in question, as we rely on the fact that they are in the Local Groups to authorize them.

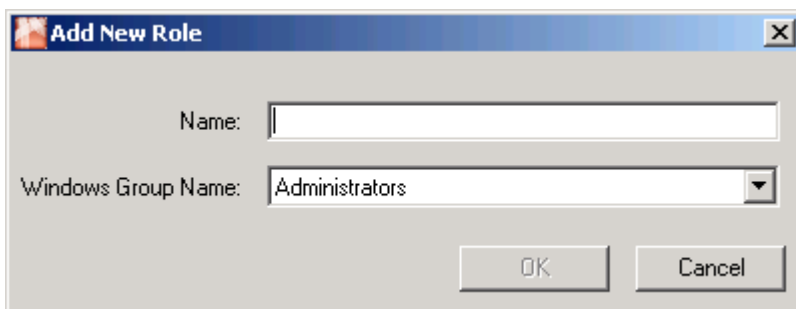
Note: It is important to develop a detailed plan for data management and user access before creating map sources, Roles and Windows groups - once they are all in place it will be time-consuming to revise them.

## 2.1. The Roles Editor

Once you have created Windows Groups you can apply these to individual iShare Roles using the Studio Roles Editor, which is the last item in the Studio navigation tree.



You can use the **Add**  or **Remove**  buttons to add and remove Windows Groups from the **Roles Editor** or click the **Edit** icon  to amend existing details.



Add a new role named **Test** and assign the Windows Group **iShareAdmin** to it.

Make sure that you **Save** all your changes in Studio by clicking the **Save** button. You will also need to close Studio and re-open in order to see any new roles under the Map Source **Roles** node. Once you have created your iShare Roles you can then apply them to individual **Map Sources** and **OGC Map Layers**.

## 2.2. Roles Demonstration

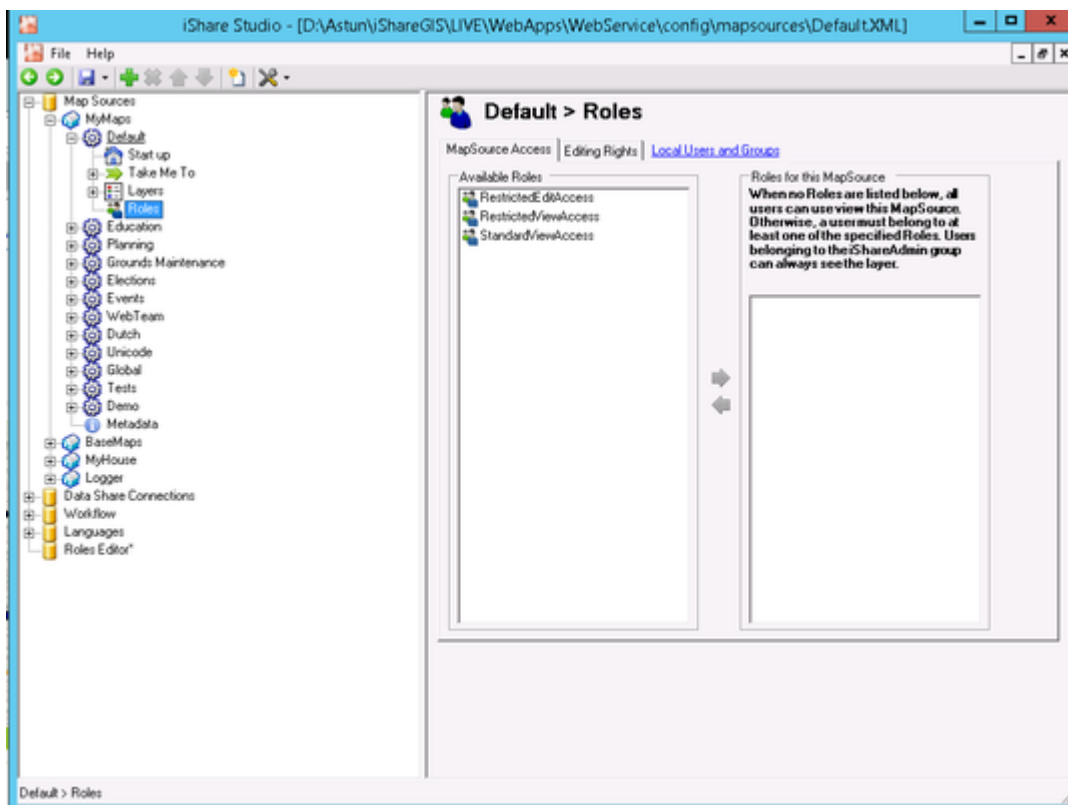
We will now use the training instance to demonstrate how Roles work in practice.

### Local Users for testing Roles

User	Group	Password	Notes
------	-------	----------	-------

StandardViewUser	StandardViewAccess	WillWorseHarvestNotebook8	User has no access to restricted mapsources.
RestrictedViewUser	RestrictedViewAccess	CupSpringEasySportFemale5	User has access to all restricted mapsources.
RestrictedEditUser	RestrictedEditAccess	UnitDoctorDescentPlease5	User has editing rights to all OGC layers in restricted mapsources.

1. Run iShare GIS as the above users.
  1. **StandardViewUser** only has access to the default mapsource.
  2. **RestrictedViewUser** has access to all restricted mapsources but no editing rights.
  3. **RestrictedEditUser** has editing rights to all OGC Layers in restricted mapsources.
2. In Studio remove permissions on Layers and mapsources and see how this reflected in the application.



3. Refresh the browser and IIS Application Pools etc. to clear any caching if needs be (though this shouldn't be necessary).
4. Examine the local Users and Groups dialog. Note that Domain groups can be members of local groups.

### 2.3. Editing Features in Layers

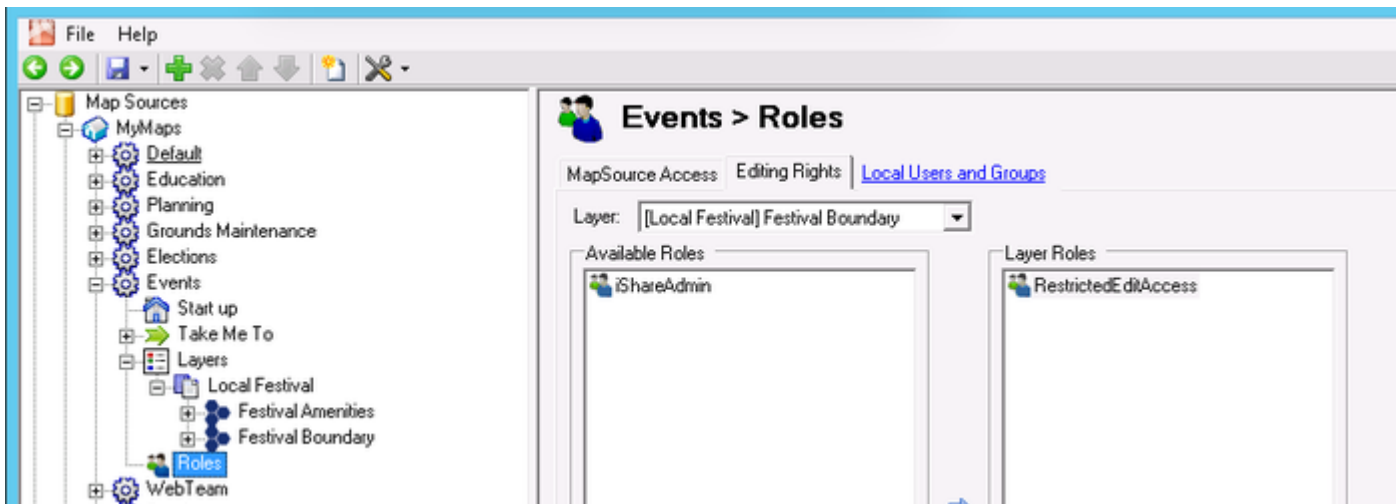
Layers (OGC but not Classic) can be edited by end users using the iShare GIS editing tools. This allows users to edit data directly in the database table which the OGC Layer references.

Editing permissions are controlled by iShare Roles. For a member of a Role to be able to edit an OGC layer:

- a Role which they are a member of needs to have access to the Profile (map source) which the layer is in, and
- the Role needs to be allocated to the layer in **Layer Roles**.

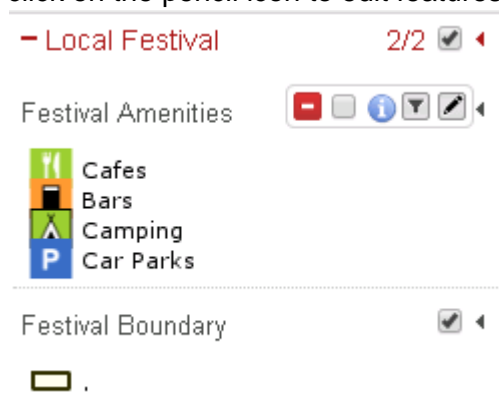
To set this up:

1. Go to the **Roles** node for the Events map source and select the **Editing Rights** tab.
2. Now select the **FestivalAmenities** layer and then select the **RestrictedEditAccess** Role.
3. Save your changes.



Once a layer has been associated with a Role, all members of the role will be able to edit the layer, and the 'pencil' icon (see below) will be present in the layer's sub-menu in the iShare GIS web interface legend for the layer. The festival boundary layer is defined by sql that contains a where clause which makes it unavailable for editing.

1. Open the iShare GIS application, select the **Events** Profile (*if this is not displayed then you need to open Studio, click on the **MyMaps** node, select the **Events** Map Source and untick the **Hidden** check box*)
2. Expand the **Local Festival** Layer Group, expand the **Actions** for the **Festival Amenities** Layer and click on the pencil icon to edit features for the layer.



3. You will see a **Select feature** button - try this on the Festival Amenities layer and change and save it.
4. Click the **New feature** button to add a new Amenity.

### 3. Annotations

Annotations allow users to add their own layers, to style them, and to share them with others. This is

discussed in detail in the *iShare GIS for Users* module.

There may be occasions when Annotation layers need to be transferred to normal iShare layers, in order to formally publish them for example, or to allow them to be edited in an external programme. This can be done by accessing the tables which hold the annotations in the *annotations* schema of the iShare GIS database - the tables are:

- features
- layers
- layers\_access
- layers\_styles

These tables can be exported so that they can be used in GIS software or elsewhere in iShare, using SQL which Astun can provide.

## 4. Creating your own Print Template

Although iShare GIS comes with default Print Templates it is often the case that you would want to create your own bespoke template. You would normally start by copying one of the supplied templates which may be found in the **Web\print** folder before changing / renaming to suit your requirements.

Open the Print Template in a text editor and then we will explain what the different sections control.

### 4.1. Template Settings

The code below overrides the default print settings. It can be added inside a script block in the head of a print template. Settings can be removed as required. Open **A3-portrait.html** to see this in action.

```
//Leave the properties which you want to change, you can safely remove
the rest
var defaultSettings = {
  'marginTop' : 10, //mm
  'marginRight' : 10, //mm
  'marginBottom' : 10, //mm
  'marginLeft' : 10, //mm
  'pageSize' : 'A4', //full list
  http://doc.trolltech.com/4.6/qprinter.html#PageSize-enum
  'orientation' : 'portrait', //Possible values 'landscape' &
'portrait'
  'headerHeight' : 0, //mm
  'headerPadding' : 0, //mm
  'footerHeight' : 15, //mm
  'footerPadding' : 1 //mm
  'scales' : [ 250000, 125000, 50000, 25000, 10000, 5000, 2500, 1250,
1000, 500, 250, 125 ]
}
```

### Allowed Page Sizes

For the full list of allowed page sizes please see [Creating your own Print Template](#) in the on-line iShare documentation.

## Scales

The '**scales**' option above shows the default scales and as such may be removed altogether. To customise your own range of scales simply specify your own entries for the parameter. If a user enters a scale that is outside the defined range then the scale will default to the maximum or minimum entry as required.

When the map is selected the current scale will automatically be added to the selection as (Original 1:nnnn).

1. Due to some restrictions adjusting the height of the map element to correctly position it in the selected page size; you will need to adjust the header and footer height or padding using these options. **PLEASE DO NOT USE CSS TO ADJUST HEIGHT OR PADDING OF HEADER AND FOOTER.**
2. At present the page size and print scale only generate accurate results when defined in **Milli meters**, as above, and not pixels etc.

## 4.2. JavaScript

```
<script type="text/javascript"
src="../../js/lib/prototype-1.6.0.3.js"></script>
  <script type="text/javascript"
src="../../FileIncluderJS.aspx"></script>
  <script>Astun.JS.IncludeJS('print');</script>
```

No JavaScript files should be removed as the maps and will not work properly.

## 4.3. Defining a Style Sheet

```
<link type="text/css" rel="stylesheet"
href="css/templates/astun-A4-common.css" />
```

We have provided one editable style sheet **astun-A4-common.css** with iShare which may be customised. We would suggest that you copy the supplied css before making your changes.

If you wish to use a different style sheet then please change this entry to reflect the style sheet you wish to use.

## 4.4. HTML Structure

### Example

```
<div id="wrapper">
  <div id="header"></div>
  <div id="mapWrapper">
    <div id="map"></div>
    <div id="atLegends" class="atBottomRight"></div><!-- other
possible css classes: atBottomLeft, atTopRight, atTopLeft (you can use 1
at a time) -->
  </div>
  <div id="footer">
    <div id="atGenInfo">
      <h1 id="atPageTitle" class="isharemaps-edit-inline">iShare
printing</h1>
      <p id="scale">Scale: 1:<span
id="isharemaps-scale">undefined</span></p>
      <p class="printinfo">Printed on: <span
id="isharemaps-print-date"></span></p>
    </div>
    <div id="atCompanyDetails">
      
      <div id="copyright">&copy; Astun Technology Ltd</div>
    </div>
  </div>
</div>
```

You can change the order of the **header** or **footer**; change the position of the **map** element; add extra **css** classes to the elements to control using css.

Please do not change or remove the the 'IDs' or 'CLASS' from any element as this can create problems.

### Changing the Logo & Copyright

You may also change the **logo** but make sure the height of the logo image does not exceed the height of the footer/header provided in the **Template Settings** and of course the **copyright text**. Also please use **.png** or **.jpg** for the logo images, **.gif** images will not work.

The PDF generation does not support **.gif** images.

### Using the iShare predefined Selectors

There are currently four iShare selectors that you may use within your print template. These selectors may be used as many times as required in the template, we have used three of these in the following example.

**iShare printing**

Scale: 1:14173

Printed on: 12/11/2015 at 15:38 PM



Selector	Description
isharemaps-edit-inline	This displays an editable box where the user can type any information they require to be printed. This is designed to be used in line with other text or on its own. Here we have pre-populated the entry with iShare printing” but the user will be able to change this.
isharemaps-edit-block	This displays an editable block designed to be used on block elements such as paragraphs.
isharemaps-print-date	This displays the current date
isharemaps-scale	This displays the currently selected scale for the map

### Displaying a Legend

A **Display Legend** check box will be included in the header of the default templates e.g.



If you wish to remove the **Legend** from the Print template then simply remove the **atLegends div** e.g.

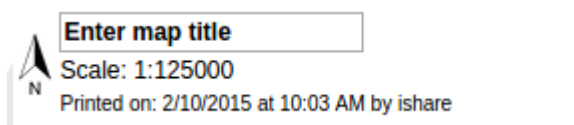
```
<div id="atLegends" class="atBottomRight"></div><!-- other possible css
classes: atBottomLeft, atTopRight, atTopLeft (you can use 1 at a time)
-->
</div>
```

For large legends a style rule may need to be added to the end of the head element in the template html file.

```
<style type="text/css">#mapWrapper {
  overflow:hidden;
}
</style>
```

### Print the User Name on the PDF output

You may add the user account to the PDF output from iShare GIS e.g.



Where **ishare** is the user name.

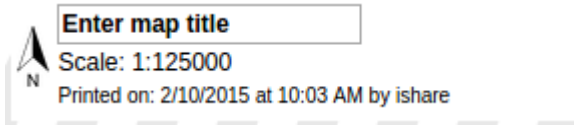
In order for this to happen you need to do the following:

- Save `printusername.js` into the **Web/custom/js** folder.
- Add the following line to the template.html immediately before the **</head>** entry.

```
<script type="text/javascript"
src="../../custom/js/printusername.js"></script>
```

### Adding a North Arrow

One way of adding a North Arrow is to add the North Arrow image, along with the existing Page Title, Scale and Print information into a table e.g.



This is what the code would look like:

### Adding a North Arrow

```
<table border="0">
  <tr><td>
    
  </td><td>
    <h1 id="atPageTitle" class="isharemaps-edit-inline">Enter map
title</h1>
    <p id="scale">Scale: 1:<span id="isharemaps-scale">undefined</span></p>
    <p class="printinfo" style="font-size: 10px">Printed on: <span
id="isharemaps-print-date"></span></p>
  </td></tr>
</table>
```

