

Enhanced Search Widget XML Configuration

Version 2.5.1.5 – Mar. 16, 2012

Changed since version 2.5.1.4 * clarification added to page 3

The configuration file for the enhanced search widget allows for the configuration of the enhanced search widget without changes to the source code. Below is a list of the xml elements (tags) and what they do.

The following section pertains to all child elements of the **layers** element.

```
<layer>
  <definitionexpression></definitionexpression>
  <enableexport>true</enableexport>
  <name>Louisville Zoning</name>
  <url>http://sampleserver1.arcgisonline.com/ArcGIS/rest/services/Louisville/LOJIC_LandRecords_Louisville/MapServer/2</url>
  <expressions>
    <expression alias="Zoning Code"
      textsearchlabel="Search Zoning Code [ Example: R1 ]:"
      field=" ZONING_CODE" usedomain="false" userlist="OR1,C2,OTF"
      >upper(ZONING_CODE) = upper('[value]')</expression>
    <expression alias="Zoning Type"
      textsearchlabel="Search Zoning Type [ Example: RESIDENTIAL ]:"
      >upper(ZONING_TYPE) = upper('[value]')</expression>
    <expression alias="Zoning Name"
      textsearchlabel="Search Zoning Name [ Example: RES MULTI-FAMILY ]:"
      >upper(ZONING_NAME) = upper('[value]')</expression>
  </expressions>
  <graphicalsearchlabel>Use one of the graphical search tools to select Zoning</graphicalsearchlabel>
  <spatialsearchlayer>true</spatialsearchlayer>
  <titlefield>ZONING_NAME</titlefield>
  <fields all="false">
    <field name="ZONING_CODE" alias="Zoning Code"/>
    <field name="ZONING_NAME" alias="Zoning Name"/>
    <field name="ZONING_TYPE" alias="Zoning Type"/>
    <field name="SALE_DATE" gridfield="true" dateformat="MM/DD/YYYY"/>
    <field name="SALE_PRICE" gridfield="true" currencyformat="$[2],|."/>
    <field name="URL" alias="Show Image" hyperlinkgridfield="true" hyperlinkaliastext="Get Image"/>
  </fields>
  <links>
    <link includeinresults="false" field="URL" alias="Get Image">
      <linkprefix></linkprefix>
      <linksuffix></linksuffix>
      <iconfield></iconfield>
      <iconprefix></iconprefix>
      <iconsuffix>assets/images/i_camera.png</iconsuffix>
    </link>
  </links>
  <zoomscale usegeometry="true"/>
  <autoopendatagrid>true</autoopendatagrid>
  <relates>
    <relate id="0" label="ABIMS Bridge" icon="assets/images/i_hydro.png">
      <fields all="true" />
    </relate>
    <relate id="1" label="Average Daily Traffic" icon="assets/images/i_folder.png">
      <fields all="false">
        <field name="Date_" dateformat="MM/DD/YYYY" />
        <field name="Road_Name" />
        <field name="Road_ID" />
        <field name="Location" />
        <field name="ADT" />
        <field name="Percent_Tr" />
      </fields>
    </relate>
  </relates>
</layer>
```

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```
<definitionexpression>Local_ID LIKE '%Z'</definitionexpression>
```

The definitionexpression element limits the query to a subset of the available features in the map service layer. It is similar to the definition query for a layer in ArcMap.

```
<enableexport>true</enableexport>
```

The enableexport element specifies whether or not this layer will have export data options on the data grid if one is configured. Default is false.

```
<name>Louisville Zoning</name>
```

The name element specifies the name of the configured layer and will appear in the layer combo box if more than one layer is configured.

```
<url>http://sampleserver1.arcgisonline.com/ArcGIS/rest/services/Louisville/LOJIC_LandRecords_Louisville/MapServer/2</url>
```

The url element specifies the REST End point url of the layer that will be queried.

```
<expressions>
  <expression alias="Zoning Code"
    textsearchlabel="Search Zoning Code [ Example: R1 ]:"
    field=" ZONING_CODE" usedomain="false" userlist="OR1,C2,OTF"
    >upper(ZONING_CODE) = upper('[value]')</expression>
  <expression alias="Zoning Type"
    textsearchlabel="Search Zoning Type [ Example: RESIDENTIAL ]:"
    >upper(ZONING_TYPE) = upper('[value]')</expression>
  <expression alias="Zoning Name"
    textsearchlabel="Search Zoning Name [ Example: RES MULTI-FAMILY ]:"
    >upper(ZONING_NAME) = upper('[value]')</expression>
</expressions>
```

The expressions parent element contains all the individual expression child elements that will be used for this particular layer. What this means is you can have multiple query expression elements that use different fields from this layer to query your map service.

```
<expression alias="Zoning Code" textsearchlabel="Search Zoning Code [ Example: R1 ]:"
field=" ZONING_CODE" usedomain="false">upper(ZONING_CODE) = upper('[value]')</expression>
```

The expression element specifies the actual sql query syntax that will be used against this layer as well as the other optional and required attributes. The **alias** attribute is required and will be the text that appears in the combo box if more than one expression child is specified. The **textsearchlabel** attribute is optional but HIGHLY recommended as this gives your user an idea of what value to enter into the input text box. The **textsearchlabel** should be a valid example value that a user would enter if they are unfamiliar with your data. The **field** attribute is optional and only needs to be added if you want to use a field that has a coded value or Range domain associated with it and you specify the **usedomain** attribute as true. What this does is gets all the valid coded value domain values and adds them to a combo box that replaces the text input box and forces the user to select a valid coded value for the search or sets validation on the text input box to warn you if the value entered is above the max range value or below the minimum value in the range domain. The **field** attribute needs to be the same field that is used in the sql expression. The **usedomain** attribute is either true or false and must be used in conjunction with the **field** attribute. The **userlist** attributes give you the ability to predefine your own list of search values that will be presented to the user in a dropdown instead of the user typing the value.

```
<graphicalsearchlabel>Use one of the graphical search tools to select Zoning</graphicalsearchlabel>
```

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The **graphicalsearchlabel** element specifies the label that instructs the user to use the graphical search tools to select feature in the specified layer.

```
<spatialsearchlayer>true</spatialsearchlayer>
```

The **spatialsearchlayer** element specifies if this particular layer will be included in the combo box for an available layer to use in conjunction with the spatial search option.

```
<titlefield>ZONING_NAME</titlefield>
```

The **titlefield** element specifies the label that will appear at the top of the search widgets result for each feature that is returned and at the top of the info window for the feature.

```
<fields all="false">
  <field name="ZONING_CODE" alias="Zoning Code"/>
  <field name="ZONING_NAME" alias="Zoning Name"/>
  <field name="ZONING_TYPE" alias="Zoning Type"/>
  <field name="SALE_DATE" gridfield="true" dateformat="MM/DD/YYYY" useutc="true" gridfieldonly="true" sum="true" sumlabel="Sales
Price: "/>
  <field name="SALE_PRICE" gridfield="true" currencyformat="$|2|,|." gridfieldonly="true"/>
  <field name="URL" alias="Show Image" hyperlinkgridfield="true" hyperlinkaliastext="Get Image"/>
</fields>
```


The **fields** parent element contains all the individual **field** child elements that will be used for this particular layer. Everything for the field element is specified as an attribute of the element. The **name** attribute is the actual field name. If you are using a layer that contains a join than the full join field name should be used. The **alias** attribute is optional as this information can automatically be retrieved from the map service. If you want to specify an alias that is different than the alias specified in ArcMap than you can set this value. If you want this field to appear in the floating data grid than you specify true for the **gridfield** attribute, valid values are true or false, and the default is false. Just specifying the field will add the field to the widget results and the info window. The **gridfieldonly** attribute will change the default behavior and it will only be added to the floating data grid and not the widget results or the info window, valid values are true or false, and the default is false.. The **useutc** attribute allows the difference, in minutes, between universal time (UTC) and the computer's local time to be added to the date. The **dateformat** attribute allows you to specify the format of an esri date field. See esri documentation for valid format strings. The **currencyformat** attribute allows you to format a numeric field that represents currency values.

currencyformat - is a string that is pipe delimited. The first-position is the currency symbol, second-number of decimal places, third-thousands separator, fourth-decimal separator. Example: "\$|2|,|." The **numberformat** attribute allows you to format a numeric field. **numberformat** - is a string that is pipe delimited. The first-position is the precision, second-thousands separator, third-decimal separator. Example: "2|,|." The **hyperlinkgridfield** attribute specifies that this field is a grid hyperlink field, valid values are true or false, and the default is false. So if you want a clickable link text in the data grid than you need to use this attribute. The **hyperlinkaliastext** attribute is the text to show instead of the url in the data grid. So if you have a long url or just don't want the url to show in the data grid then you specify the alias that you do want to appear in the data grid using this attribute. The **hyperlinkgridfieldonly** attribute specifies that this particular field will only be used in the data grid as a hyperlink and not appear in the widget results or the info window, valid values are true or false, and the default is false. If **linkprefix** and/or **linksuffix** is specified than the static text from the **linkprefix** and **linksuffix** field makes a complete url to a document, image, website, etc when it comes to the field being use as a **hyperlinkgridfield**. The **sum** attribute is a true or false attribute that can be added to a numeric field that is set to be shown in the data grid that will sum all the entries for this field and post this result in the data grid. The **sumlabel** attribute is the text label that will appear in front of the sum total on the data grid.


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```
<links>
  <link includeinresults="false" field="URL" alias="Get Image">
    <linkprefix></linkprefix>
    <linksuffix></linksuffix>
    <iconfield></iconfield>
    <iconprefix></iconprefix>
    <iconsuffix>assets/images/i_camera.png</iconsuffix>
  </link>
</links>
```

The optional links parent element contains your desired links. Specify one or more links and specify attributes such as includeinresults. Includeinresults is false by default but when set to true the field is used as a link field and still added to the Search results. The required field attribute is the field name for the link. The alias attribute give you the ability to have a link like <http://help.arcgis.com/en/webapps/flexviewer> displayed in the popup as ESRI Website. The link is a string field that contains a url or when combined with the static text from the linkprefix and linksuffix field makes a complete url to a document, image, website, etc.

The optional iconfield is a string field that contains a url or when combined with the static text from the iconprefix and iconsuffix field makes a complete url to an image (preferably small) that will replace the standard  icon. So example would be icon elements would have:

```
<iconprefix>http://myserver/icons/</iconprefix>
<iconfield>icofield</iconfield>
<iconsuffix>.jpg</iconsuffix>
```

So if your icofield has a value of "pdf" then the complete url would be "http://myserver/icons/pdf.jpg" and that image would be used. Possibly looking like this . It is important to use a small image around 20x20 pixels.

```
<zoomscale usegeometry="false">2400</zoomscale>
```

The **zoomscale** element is a numeric value that the maps scale will be set to when widget result is clicked or the data grid row is clicked. The **usegeometry** is false by default but if set to true then the results geometry will be used to zoom the map to the result. If the **usegeometry** value is false, than the specified scale will be used to set the scale of the map.

```
<autoopendatagrid>true</autoopendatagrid>
```

The **autoopendatagrid** element is a Boolean value that specifys if the datagrid will automatically be opened be a search is performed for this layer. The **autoopendatagrid** is false by default.

```
<relates>
  <relate id="0" label="ABIMS Bridge" enableexport="true" icon="assets/images/i_hydro.png">
    <fields all="true" />
  </relate>
  <relate id="1" label="Average Daily Traffic" enableexport="false" icon="assets/images/i_folder.png">
    <fields all="false">
      <field name="Date_" dateformat="MM/DD/YYYY" useutc="true"/>
      <field name="Road_Name" />
      <field name="Road_ID" />
      <field name="Location" />
      <field name="ADT" numberformat="2|,|."/>
      <field name="Percent_Tr" />
    </fields>
  </relate>
</relates>
```

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The **relates** parent element contains all the individual **relate** child elements that will be used for this particular layer. Everything for the relate element is specified as an attribute of the element. The **id** attribute is the actual relate id number from the REST Services directory. The **label** attribute is a name that will be shown to the user to select this relate in the UI and used for messages concerning the relate. The **icon** attribute is a String that specifies the path to the image that is displayed for the relate icon button in the search results if only one relate is specified for that layer or if the layer has more than one relate the icon will appear in the choose relate dialog. The **enableexport** attribute defines if the relates datagrid will display export options for the selected relate, (default is false). The **fields** parent element contains all the individual **field** child elements that will be used for this particular layer. Everything for the field element is specified as an attribute of the element. The **name** attribute is the actual field name. If you are using a layer that contains a join then the full join field name should be used. The **alias** attribute is optional as this information can automatically be retrieved from the map service. If you want to specify an alias that is different than the alias specified in ArcMap then you can set this value. The **useutc** attribute allows the difference, in minutes, between universal time (UTC) and the computer's local time to be added to the date. The **dateformat** attribute allows you to specify the format of an esri date field. See esri documentation for valid format strings. The **currencyformat** attribute allows you to format a numeric field that represents currency values. **currencyformat** - is a string that is pipe delimited. The first-position is the currency symbol, second-number of decimal places, third-thousands separator, fourth-decimal separator. Example: "\$|2|,|." The **numberformat** attribute allows you to format a numeric field. **numberformat** - is a string that is pipe delimited. The first-position is the precision, second-thousands separator, third-decimal separator. Example: "2|,|." The **hyperlinkgridfield** attribute specifies that this field is a grid hyperlink field, valid values are true or false, and the default is false. So if you want a clickable link text in the data grid, then you need to use this attribute. The **hyperlinkaliastext** attribute is the text to show instead of the url in the data grid. So if you have a long url or just don't want the url to show in the data grid then you specify the alias that you do want to appear in the data grid using this attribute. The **sum** attribute is a true or false attribute that can be added to a numeric field that is set to be shown in the data grid that will sum all the entries for this field and post this result in the data grid. The **sumlabel** attribute is the text label that will appear in front of the sum total on the data grid.

The following section pertains to spatialrelationships.

```
<spatialrelationships>
  <spatialrelationship>
    <name>esriSpatialRelContains</name>
    <label>entirely contained in</label>
  </spatialrelationship>
  <spatialrelationship>
    <name>esriSpatialRelIntersects</name>
    <label>intersects by</label>
  </spatialrelationship>
  <spatialrelationship>
    <name>esriSpatialRelEnvelopeIntersects</name>
    <label>intersects by envelope of</label>
  </spatialrelationship>
</spatialrelationships>
<bufferunits>
  <bufferunit>
    <name>UNIT_FOOT</name>
    <label>Feet</label>
  </bufferunit>
  <bufferunit>
    <name>UNIT_STATUTE_MILE</name>
    <label>Miles</label>
  </bufferunit>
</bufferunits>
```

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```
<bufferunit>
  <name>UNIT_METER</name>
  <label>Meters</label>
</bufferunit>
<bufferunit>
  <name>UNIT_KILOMETER</name>
  <label>Kilometers</label>
</bufferunit>
</bufferunits>
```

The **spatialrelationships** parent element contains all the individual **spatialrelationship** child elements that will be used for all layers.

```
<spatialrelationship>
  <name>esriSpatialRelContains</name>
  <label>entirely contained in</label>
</spatialrelationship>
```

The **spatialrelationship** element specifies the buttons and spatial operators that will be available for the spatial search portion of the widget.

```
<name>esriSpatialRelContains</name>
```

The **name** element is the esri constant that specifies the esri spatial relation operation that will be executed against the selected graphics. Possible values are:

- esriSpatialRelIntersects
- esriSpatialRelContains
- esriSpatialRelCrosses
- esriSpatialRelEnvelopeIntersects
- esriSpatialRelIndexIntersects
- esriSpatialRelOverlaps
- esriSpatialRelTouches
- esriSpatialRelWithin

Unsupported value is esriSpatialRelRelation.

```
<label>entirely contained in</label>
```

The **label** element is the tooltip that will be displayed when the user hovers their mouse over the button.

The **bufferunits** parent element contains all the individual **bufferunit** child elements that will be used for all buffer operations.

```
<bufferunit>
  <name>UNIT_FOOT</name>
  <label>Feet</label>
</bufferunit>
```

The **bufferunit** element specifies the buffer units that appear in the unit combo box on spatial search portion of the widget.

```
<name>UNIT_FOOT</name>
```

The **name** element is the esri constant that specifies the esri unit type that will be used in the buffer operation on the selected graphics. Possible values are:

- UNIT_FOOT
- UNIT_ACRES

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- UNIT_ARES
- UNIT_HECTARES
- UNIT_KILOMETER
- UNIT_METER
- UNIT_NAUTICAL_MILE
- UNIT_STATUTE_MILE
- UNIT_US_NAUTICAL_MILE

`<label>Feet</label>`

The **label** element is the text that will be displayed in the unit combo box on spatial search portion of the widget.

The following section pertains to several different configuration options.

`<spatialReference>102003</spatialReference>`

The **spatialReference** element is the WKID to use for the buffer operations and spatial operations.

`<zoomscale>2400</zoomscale>`

The **zoomscale** element is a numeric value that the maps scale will be set to when widget result is clicked or the data grid row is clicked.

`<geometryservice>http://sampleserver3.arcgisonline.com/ArcGIS/rest/services/Geometry/GeometryServer</geometryservice>`

The **geometryservice** element is the url of the geometry service to use for all geometry operations in this widget.

`<csvseparator>,</ csvseparator >`

The **csvseparator** element is for internationalization of the data grid export data button functionality and only applies to the data grid export file.

`<enabledatagridinteractionwithwidget>true</enabledatagridinteractionwithwidget>`

The **enabledatagridinteractionwithwidget** element is a Boolean that specifies whether or not to enable interaction between the widget results and the datagrid results. The default for this element is false. This interaction is seen when you hover the mouse over a record in the data grid the corresponding record in the widgets results are highlighted and vice versa. With large result datasets this interaction causes a delay that can affect the performance of the viewer.

`<toleranceforpointgraphicalselection>3</toleranceforpointgraphicalselection>`

The **toleranceforpointgraphicalselection** element is a number that is in screen pixels that represents the tolerance that will be added to the graphical point search when click on the map. The is for point on point selection. This option is unchecked by default.

`<tolerancebydefault >false</tolerancebydefault>`

The **tolerancebydefault** element is a Boolean that specifies whether to check the "Add search tolerance to point selection" checkbox in the User Interface by default or not. This option is unchecked (false) by default.

`<disablebuttons></disablebuttons>`

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The **disablebuttons** element is a comma separated string. Possible values include one or more, but not all three search types text,graphic,spatial. The grid button can also be disabled by adding grid to the list and the datagrid button can also be disabled by adding datagrid to the list. (example text,graphic,grid,datagrid)

```
<defaultselectionoption>textInput</defaultselectionoption><!--possible values only one graphicalInput or textInput or spatialInput -->
```

The **defaultselectionoption** element is a string that specifies which search option (i.e graphicalInput or textInput or spatialInput) will be the default search option for the widget.

```
<enableddrawgraphicbutton>true</enableddrawgraphicbutton>
```

The **enableddrawgraphicbutton** element is a Boolean that specifies whether to show the graphical selection button for using existing draw/eDraw graphics.

```
<enablebuffergraphicbutton>true</enablebuffergraphicbutton>
```

The **enablebuffergraphicbutton** element is a Boolean that specifies whether to show the graphical selection button for using existing point buffer widget graphics.

```
<selectedgraphicaltool></selectedgraphicaltool>
```

The **selectedgraphicaltool** element is a string that specifies if and which graphical selection button is the default button selected when the widget is opened and the defaultselectionoption = graphicalInput. The default is to have nothing optional values are extent, polygon, mappoint, polyline.

```
<multipartgraphicsearch>true</multipartgraphicsearch>
```

The **multipartgraphicsearch** element is a Boolean that specifies whether if the graphical selection tools allow multiple similar geometries to be drawn and the search button to activate the search. The **multipartgraphicsearch** is true by default.

```
<floatorfixed>float</floatorfixed>
```

The **floatorfixed** element is a String that specifies whether if the datagrid will be a floating datagrid or a fixed datagrid. The new fixed datagrid allows you to specify a permanent location of the datagrid in the Flex Viewer UI. Please refer to the Enhanced Search Widget Fixed Datagrid Setup.pdf for details on how to setup the fixed datagrid.

```
<relatetooltip>Show Relates</relatetooltip>
```

The **relatetooltip** element is a String that specifies the tool tip that is displayed when you hover over the relate icon button in the search results.

```
<relateicon>widgets/eSearch/assets/images/i_relate.png</relateicon>
```

The **relateicon** element is a String that specifies the path to the image that is displayed for the relate icon button in the search results.

The following section pertains to labels.

```
<labels>  
  <bufferusergraphics>Buffer Graphic</bufferusergraphics>
```


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```
<norelatesfound>No related features found for: </norelatesfound>
<norelatesfoundalerttitle>No Results</norelatesfoundalerttitle>
<addtolerance>Add search tolerance to point selection</addtolerance>
<existingdrawgraphicslabel>Use Existing eDraw Widget Graphics</existingdrawgraphicslabel>
<existingbuffergraphicslabel>Use Existing Point Buffer Widget Graphics</existingbuffergraphicslabel>
<graphicalsearchlabel>Graphical Search</graphicalsearchlabel>
<textsearchlabel>Text Search</textsearchlabel>
<resultslabel>Results</resultslabel>
<layerlabel>Search Layer:</layerlabel>
<layerfieldlabel>Search Layer Field:</layerfieldlabel>
<nolayerlabel>No search layer defined.</nolayerlabel>
<submitlabel>Search</submitlabel>
<pointlabel>Select by Point</pointlabel>
<linelabel>Select by Line</linelabel>
<rectanglelabel>Select by Rectangle</rectanglelabel>
<polygonlabel>Select by Polygon</polygonlabel>
<clearlabel>Clear</clearlabel>
<loadinglabel>Loading...</loadinglabel>
<selectionlabel>Features Selected:</selectionlabel>
<gridresultsLabel>Show Results in Grid</gridresultsLabel>
<csvdefaultname>Selected Records</csvdefaultname>
<relatescsvdefaultname>Related Records</relatescsvdefaultname>
<exportbtnlabel>Export...</exportbtnlabel>
<export2csvoptionlabel>Export to CSV...</export2csvoptionlabel>
<export2txtoptionlabel>Export to Txt...</export2txtoptionlabel>
<bufferLabel>apply a search distance:</bufferLabel>
<spatialsearchLabel>Spatial search</spatialsearchLabel>
<applybufferlabel>Apply buffer</applybufferlabel>
<searchlayerlabel>Search entities of:</searchlayerlabel>
<enablemultipartsearch>enable multi-part graphics</enablemultipartsearch>
<zoomalllabel>Zoom</zoomalllabel>
<zoomalltip>Zoom to all results</zoomalltip>
<bufferalpha>Adjust buffer alpha</bufferalpha>
<buffercolor>Select buffer color</buffercolor>
</labels>
```

The following section pertains to symbols.

```
<symbols>
  <simplefillsymbol color="0xff0000" alpha="0.5">
    <outline color="0xff0000" alpha="0.8" width="2"/>
  </simplefillsymbol>
  <!-- You can have one or the other, either simplemarkersymbol or picturemarkersymbol
    defined for your point results NOT BOTH. picturemarkersymbol will override simplemarkersymbol
    if you do not have it commented out. -->
  <!--<simplemarkersymbol style="square" size="12" color="0xff0000" alpha="0.5" xoffset="0" yoffset="0" angle="0">
    <outline style="solid" color="0x000000" alpha="1" width="1"/>
  </simplemarkersymbol>-->

  <picturemarkersymbol url="org/calhoun/county/assets/images/i_search.png" height="30" width="30" xoffset="0" yoffset="0" />

  <simplelinesymbol color="0xff0000" alpha="0.8" width="2"/>
</symbols>
```

Default symbols can be set using syntax as above to set the default symbology for search results. For point data you can either use **simplemarkersymbol** **OR** **picturemarkersymbol**.