

## Code Samples for

# A GIS APP FOR THE FACEBOOK GENERATION

## Bringing the Atlas of New South Wales to life

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### A GIS with no tools?

To simplify user experience, the controls used to interact with the map were minimized by using the JavaScript map's in-built behaviors for navigation. This eliminated the need for Zoom In, Zoom Out and Pan tools. Running a listener for the `onMouseOver` event meant that an Identify tool wasn't necessary, because the features themselves became "identifiable". In our case, when the mouse is moved over a polygon, the cursor changes to a pointer and the feature is highlighted, alerting the user that further information is available. (A separate listener event removes the highlight graphic when the mouse is moved away from the feature). Incorporating the Identify tool's functionality into the layer's own behavior allowed us to dispense with the Identify tool, further simplifying the user interface.

Figure 3: Code to handle mouse-over and mouse-out events

```
dojo.connect(newLayer, "onMouseOver", function (evt) {
    map.setMapCursor("pointer");
    map.graphics.remove(highlightGraphic);
    highlightGraphic = new esri.Graphic(evt.graphic.geometry,highlightSymbol);
    map.graphics.add(highlightGraphic);
});

dojo.connect(newLayer, "onMouseOut", function () {
    map.setMapCursor("default");
    map.graphics.remove(highlightGraphic);
});
```

### Generalize on the Fly

The use of feature layers removed the need for an Identify tool, but posed its own set of challenges. Displaying complex polygon features across the whole of NSW resulted in large download sizes and long download times. The resolution was to use the `maxAllowableOffset` parameter to allow the features to generalize on-the-fly. By listening for the map's `onZoomEnd` event, the `maxAllowableOffset` value could be optimized for on any map scale.

Figure 5 - code to change the `maxAllowableOffset`

```
function changeMaxOffset() {
    //Change the maxAllowableOffset value for graphic layers, to improve drawing performance.
    var extent = map.extent;
    var range = Math.abs(extent.xmax - extent.xmin);
    layer.setMaxAllowableOffset(range / 1000);
}
```