USC Map/Calendar APIs

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Meet two BETA api

* http://web-app.usc.edu/ws/uscmap USC Maps data API
* http://web-app.usc.edu/ws/eo3 the 3rd. Generation USC Event Calendar

Common features

* Designed for Ajax & Mobile friendly interactions (i.e. data is nicely chunked)
* Semi-RESTful
* JSON/JSONP output
* fields option for custom list responses

USC Maps

USCMAP

* It's the data that drives USC desktop and mobile Map implementations.
* It's mashable content for standardizing they way you handle USC locations

Map API limitations

* It's read only
* It's JSON or JSONP output only

When do I use it?

* When you're saving a common set of USC locations
* When you need to know the geo-coordinates of a building
* When you need a list of campuses or areas of interest related USC

Getting the campus list

* http://web-app.usc.edu/ws/uscmap/api/campuses

Campus specifics

* http://web-app.usc.edu/ws/uscmap/api/campus/1 - UPC
* http://web-app.usc.edu/ws/uscmap/api/campus/2 - HSC

Getting locations

* http://web-app.usc.edu/ws/uscmap/api/locations
* http://web-app.usc.edu/ws/uscmap/api/locations?fields=lat,lng (with latitude and longitude data)

Get the details

Details of Ronald Tutor Hall - http://web-app.usc.edu/ws/uscmap/api/location/63

"63" is the location id. Replacing that with "1" would give you Bovard.

* http://web-app.usc.edu/ws/uscmap/api/location/LOCATION_ID

Ronald Tutor Hall's JSON data


```
{
    "location_id":"63",
    "building_code":"RTH",
    "building_no":"290",
    "map_name":"Tutor Hall",
    "full_name":"Ronald Tutor Hall of Engineering",
    "keywords":"",
    "short_description":"",
    "description":"",
    "photo":"RTH.jpg",
    "lg_photo":"",
    "suggested_parking":"",
    "hours":"",
    "accessibility":"1",
    "disability_access":"",
    "address":"3710 McClintock Avenue\r\nLos Angeles, CA",
    "url":"",
    "campus_id":"1",
    "campus_name":"University Park Campus",
    "campus_code":"UPC",
    "lat":"34.0200386047",
    "lng":"-118.2898178101",
    "updated":"0000-00-00 00:00:00"
}
```

JSON basics with PHP

```php
<?php
  // List Building name, latitude and longitude
  $JSON = getRemoteContents('http://web-app.usc.edu/ws/uscmap?fields=lat,lng');

  $uscmap = json_decode($JSON, true);
  foreach ($uscmap as $loc) {
    echo $loc['map_name'] . " lat:" . $loc['lat'] . " lng:" . $loc['lng'] . PHP_EOL;
  }
?>
```

In browser JSONP Example

```
<script src="jquery.min.js"></script>
<script>
  var populateMyLocations = function (data, textStatus) {
      // code to populate your location div/form field here
      ....
  },
  runApp = function () {
    $.getJSON('http://web-app.usc.edu/ws/uscmap/api/locations?' +
                'fields=lat,lng,building_code&callback=?',
        function (data, textStatus) {
          populateMyLocations(data, textStatus);
        });
  };

$(document).ready(runApp);
</script>
```

Find out more

The help docs - http://web-app.usc.edu/ws/uscmap/help

Or checkout the mashup demo -

http://its.usc.edu/~rsdoiel/demo/demo.html

USC Event Calendar 3rd. Generation API (eo3)

USC Events Calendar API

* Semi - RESTful
* JSON/JSONP output
* Flexible field lists available
* Realtime responses (no caching)
* Two types of lists - upcoming vs. agenda

Upcoming versus agenda

Do you want a list of events upcoming in the order of most recent to furthest in the future or

... a list of events for each day?

Simplified dates ranges

Now specified in the path of the URL e.g.
http://web-app.usc.edu/ws/eo3/api/highlights/32/today/+1%20week

* Dates formats match those supported by PHP's strtotime. (order is "start time" / "end time")

* /YYYY-MM-DD HH:MM:SS/YYYY-MM-DD HH:MM:SS - specifies the start and end of the date/time range (you can request the upcoming hour's worth of events or the upcoming month or hour).

* "%20" is the url encoded space character

Caveats/clarifications

* Time format is 24 hours (i.e. HH:mm:ss)
* All day means: 00:00:00 (AM) - 23:59:59 (PM)
* eo3 gives you lists of occurrences (i.e. days when the event will happen)
* schedule is just a "string" rending of when the event happens. It's a kludge left over from the past.
* Apps should implement their own caching. eo3 is only real time.

Need a faster response?

* Fetch only the list of ids for the event
* Then update your page with Ajax calls to get the specific event details you need

Event list views

* ids (fastest)
* highlights (still pretty quick)
* summaries (a little slower)
* details and ad-hoc lists (slower)
* agenda (the slowest)

Single event views

* highlight
* summary
* detail and ad-hoc lists

Helpful tools for dev.

* Chrome/Firefox extensions - JSONView
* your friendly JSON encode/decode language functions (e.g. php's json_encode(), json_decode())
* A good text editor with JavaScript color coding support.

Find out more

* Checkout http://web-app.usc.edu/ws/eo3/help for the help docs.
* Checkout the mashup demo - http://its.usc.edu/~rsdoiel/demo/demo.html

Coming Soon to an API Near you!

"The New Calendar Submit form processor"