
Subject: Map_Set versus Map_Proj_Init in Mercator Projections

Posted by [David Fanning](#) on Tue, 02 Oct 2012 12:51:33 GMT

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Folks,

I spent an interesting couple of hours yesterday tracking down a map problem. We have been studying the High Park Fire, which burned a significant chunk of our normal recreational hiking area near here this summer. As part of our work, we needed to send students out to collect ground truth at various locations in the fire area.

As an aid to the students, I wrote a program that produced satellite and terrain maps with my cgGoogleMapWidget program, which I then annotated with the random study locations.

The problem was, when the students were out in the field, searching for the location with their GPS instruments, the students were not finding the maps all that handy. In fact, they were being confused by them. It seems that the position on the map was quite a bit different from the actual position on the ground (on the order of several hundred meters).

Long story short, this turned out to be caused by the program using Map_Set to set up the Mercator map projection I was using to navigate the Google image. When I switched to Map_Proj_Init, the map and the ground coordinates aligned exactly.

I'm not certain **why** this program was using Map_Set in the first place, since I have a firm rule to always use Map_Proj_Init (via my cgMap object) when I am working with maps, but I suspect it was because I needed this program in a hurry, and Map_Set seemed "easier" at the time. I should have known better. :-)

Cheers,

David

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