

Fast Hex to RGB function for ColdFusion

Posted At : January 9, 2013 10:33 PM | Posted By : William Eatman

Related Categories: coldfusion

Over Christmas I started working on a ColdFusion image library and wrote a nice hex to RGB function. I used a few tricks to make it as fast as possible. I'll write more about some of the optimizations in the coming week. Let me know if you can identify a way to make it even faster.

```
<cffunction name="HexToRGB" access="public" output="false" returntype="struct" hint="hex to struct r,g,b,a">
<cfargument name="hex" type="string" required="true" hint="3 or 6 digit hex value (valid examples: ##FFF, FFF, #FFFFFF, FFF:

    <cfset var retVal = structNew()>
    <cfset var i = 0>
    <cfset var o = 0>
    <cfset var offset = 0>

<!-- cheaper in time to look for a leading '#' and set an offset than burn a call to removeChars --->
<cfif mid(arguments.hex, 1, 1) EQ chr(35)>
    <cfset offset = 1>
</cfif>

<!-- Remove non-hex values. the following is faster than regex --->
<cfloop from="#1 + offset#" to="#len(arguments.hex)#" index="i">
    <cfif find(mid(arguments.hex, i + o, 1), '0123456789ABCDEFabcdef') EQ 0>
        <cfset arguments.hex = removeChars(arguments.hex, i + o, 1)>
        <cfset o = o - 1>
    </cfif>
</cfloop>

<cfif len(arguments.hex) EQ (3 + offset)>
    <cfset retVal.r = InputBaseN(mid(arguments.hex, 1 + offset, 1) & mid(arguments.hex, 1 + offset, 1), 16)>
    <cfset retVal.g = InputBaseN(mid(arguments.hex, 2 + offset, 1) & mid(arguments.hex, 2 + offset, 1), 16)>
    <cfset retVal.b = InputBaseN(mid(arguments.hex, 3 + offset, 1) & mid(arguments.hex, 3 + offset, 1), 16)>
<cfelse>
    <cfset retVal.r = InputBaseN(mid(arguments.hex, 1 + offset, 2), 16)>
    <cfset retVal.g = InputBaseN(mid(arguments.hex, 3 + offset, 2), 16)>
    <cfset retVal.b = InputBaseN(mid(arguments.hex, 5 + offset, 2), 16)>
</cfif>

    <cfset retVal.a = 255>

    <cfreturn retVal>
</cffunction>
```