

## Re: What's the most efficient testing of variables?

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*Source:* <http://www.tech-archive.net/Archive/VC/microsoft.public.vc.mfc/2006-01/msg00241.html>

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- *From:* Joseph M. Newcomer <[newcomer@xxxxxxxxxxxxx](mailto:newcomer@xxxxxxxxxxxxx)>
  - *Date:* Wed, 04 Jan 2006 18:12:37 -0500
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Depending on the hashing function used, a hash table can usually work somewhere between  $O(1)$  and  $O(2)$ , that is, constant time. If there is a known set of values, an array of pointers gives  $O(1)$  as well.

joe

On Wed, 04 Jan 2006 10:45:37 -0600, "Doug Harrison [MVP]" <[dsh@xxxxxxxxx](mailto:dsh@xxxxxxxxx)> wrote:

>On Wed, 4 Jan 2006 08:26:04 -0600, "Jeff" <[jbk@xxxxxxxxxxxxx](mailto:jbk@xxxxxxxxxxxxx)> wrote:

>

>>I need to quickly (efficiently) compare a DWORD with a list of DWORDs to

>>find the one and only match. I can guaranty that there is only one match.

>>switch won't work because both are variables. How about if...else if...else

>>if.... etc? Or is there a better way?

>>

>>

>>DWORD dwPassed, dwAssigned1, dwAssigned2, dwAssigned3;

>>

>>ideally I would use a switch like statement:

>>

>>switch(dwPassed)

>>{

>>case dwAssigned1

>> deal with it;;

>> break;

>>case dwAssigned2:

>> deal with it;;

>> break;

>>case dwAssigned3:

>> deal with it;;

>> break;

>>default:

>> deal with it;;

>> break;

>>}

>>

>>But since all are variables it won't work.

>

>There's nothing wrong with if/else if/else, except it doesn't scale too

Re: What's the most efficient testing of variables?

>well. The general solution is to map these values to functions, so that you  
>can look up a value and call the associated function. You can do this  
>easily with std::map (O(log N)), though for relatively small data sets,  
>linear search of an array (O(N)) will be faster.

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MVP Tips: [http://www.flounder.com/mvp\\_tips.htm](http://www.flounder.com/mvp_tips.htm)

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• **References:**

- ◆ ***What's the most efficient testing of variables?***

◇ From: Jeff

- ◆ ***Re: What's the most efficient testing of variables?***

◇ From: Doug Harrison [MVP]

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