

Question regarding generics and type constraints

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<http://www.tech-archive.net/Archive/DotNet/microsoft.public.dotnet.languages.csharp/2008-02/msg01792.html>

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 - *Date:* Wed, 13 Feb 2008 10:15:49 -0600
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I'm new to Generics (years and years of VS.NET 2003 development, but very little .NET 2.0+). I have some routines for conversion from RGB to different color spaces and back. I would like the routines to support, at least, byte, int, and double types without having to create different versions of the routines. Is there any way to do this with generics?

The problem is, if I do something like this:

```
public static void RGB_to_YIQ<T>(T[] R, T[] G, T[] B, T[] Y, T[] I, T[] Q)
{
Y[index] = 0.299 * R[index] + 0.587 * G[index] + 0.114 * B[index];
...
}
```

I get an error: "Operator '*' cannot be applied to operands of type 'double' and 'T'"

Like I said, I'm a newb to the whole generics thing. I read the "Constraints on Type Parameters" stuff using "where" in MSDN, but I'm not sure how I can use that, if I can.

Thanks.

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