## Guid.NewGuid() vs. new Guid()



What's the difference between Guid.NewGuid() and new Guid()?

313

Which one is preferred?







33

edited Aug 13 '12 at 16:25

josh3736 108k 22 181 asked Aug 13 '12 at 16:10



OscarRyz

**47k** 99 345 52

- 6 @ClintonWard I'm practically new to C# and @ Bob2Chiv I can't run the project right now and was curious about it. OscarRyz Aug 13 '12 at 16:21
- 6 @OscarRyz For quickly testing code in C#, I use LingPad. DaveShaw Aug 13 '12 at 20:35
- Actually I do believe this question is relevant, because it's confusing and I don't where a client couldn't login to a system because somewhere deep inside the 14 '13 at 10:05
- 2 @DaveShaw LinQPad is great and I use it a lot. But I wanted to point out tha these kinds of tests. – Mark Meuer Aug 24 '16 at 16:06
- 1 @MichielCornille Just got to know the feeling bro... Jins Peter Jan 9 at 14:45

OscarRyz 147k 99 345 52 Mexico

I'm a 0x28 years old software developer who happens to like writing code.

Here are some interesting answers you might like to upvote :")

Why java people frequently consume exception silently? Codi...

How to create a... History of Obje...

an into a problem

Michiel Cornille Mar

hich very useful for

## 4 Answers

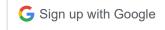


523

Guid.NewGuid() makes an actual guid with a unique value, what you probably want.

Join Stack Overflow to learn, share knowledge, and build your career.

Sign up with email





- 24 An empty UUID is very useful indeed. It makes a great special value. Jon Hanna Aug 13 '12 at 16:21
- On a side note, new Guid() is equivalent to Guid. Empty. Steve Guidi Aug 13 '12 at 16:24
- @JonHanna All guids make great special values. Unfortunately, the empty ones have a tendancy to collide. I agree that empty guids are useful though, typically to indicate that something is uninitialized. - MarkPflug Aug 13 '12 at 16:27
- The empty ones are very useful because they do collide. A special value that didn't collide with the known special value would be useless. Jon Hanna Aug 13 '12 at 16:44
- I think you're both agreeing that it makes a good "known guid" to compare to, as in the case of indicating something is awaiting initialization or is in some other known state. Personally I'd prefer to use a null value, but I can see that somebody might need a "special" guid at some point, and the all-0 guid is probably the guid least likely to violate the principal of least surprise for future maintainers of the code. - PeterL Aug 13 '12 at 19:32



Guid.NewGuid() creates a new UUID using an algorithm that is designed to make collisions very, very unlikely.

37

new Guid() creates a UUID that is all-zeros.



Generally you would prefer the former, because that's the point of a UUID (unless you're receiving it from somewhere else of course).

There are cases where you do indeed want an all-zero UUID, but in this case Guid. Empty or default (Guid) is clearer about your intent, and there's less chance of someone reading it expecting a unique value had been created.

In all, new Guid() isn't that useful due to this lack of clarity, but it's not possible to have a value-type that doesn't have a parameterless constructor that returns an all-zeros-and-nulls value.

Edit: Actually, it is possible to have a parameterless constructor on a value type that doesn't set everything to zero and null, but you can't do it in C#, and the rules about when it will be called and when there will just be an all-zero struct created are confusing, so it's not a good idea anyway.

edited Jan 29 '14 at 9:57

answered Aug 13 '12 at 16:19



Jon Hanna

93.5k 9 117 217

14 I'll add this for fun. For a 1% chance of collision, you'd need to generate about 2,600,000,000,000,000,000 GUIDs - Clinton Ward Aug 13 '12 at 16:20

Join Stack Overflow to learn, share knowledge, and build your career.

Sign up with email





2 That was v1 Guid. newer MS GUIDs are V4 and do not use the MAC address as part of the GUID generation. Time is still a factor though – Clinton Ward Aug 13 '12 at 16:34

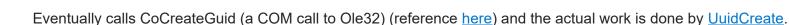


[I understand this is an old thread, just adding some more detail] The two answers by Mark and Jon Hanna sum up the differences, albeit it may interest some that

16

Guid.NewGuid()

question with new Guid()



Guid.Empty is meant to be used to check if a Guid contains all zeroes. This could also be done via comparing the value of the Guid in

So, if you need a unique identifier, the answer is Guid.NewGuid()

answered Apr 8 '14 at 6:00



Sudhanshu Mishra 4,164 2 39 57



Guid.NewGuid(), as it creates GUIDs as intended.

-2

Guid.NewGuid() creates an empty Guid object, initializes it by calling cocreateGuid and returns the object.



new Guid() merely creates an empty GUID (all zeros, I think).

I guess they had to make the constructor public as Guid is a struct.

edited Apr 23 '18 at 6:34



Vadim Ovchinnikov **7,821** 4 29 53 answered Aug 31 '16 at 3:48



Join Stack Overflow to learn, share knowledge, and build your career.

Sign up with email





Join Stack Overflow to learn, share knowledge, and build your career.

Sign up with email

