Foreach loop vs Parallel.ForEach loop

Foreach loop

*Foreach* loop runs upon a single thread and processing takes place sequentially one by one. *Foreach*loop is a basic feature of C# and it is available from C# 1.0. Its execution is slower than*Parallel.Foreach*in most of the cases.

Parallel.ForEach loop

Parallel.ForEach loop runs upon multiple threads and processing takes place in a  parallel way. Parallel.ForEach loop is not a basic feature of C# and it is available from C# 4.0 and above. Before C# 4.0 we cannot use it. Its execution is faster than foreach in most of the cases. To use Parallel.ForEach loop we need to import *System.Threading.Tasks* namespace in using directive.

But you know your application well and you can decide which one you want to use.

I am giving 2 examples, in the first example traditional foreach loop is faster than Parallel.foreach loop where as in second example traditional foreach loop is very slow as compared to Parallel.foreach.

**Example 1:** Parallel.ForEach loop is slower than Traditional Foreach loop.