
Subject: Bugfix AsGate64() works correctly on totals > 2^31

Posted by [zsolt](#) on Sun, 08 Dec 2019 01:30:56 GMT

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```
Gate<int64, int64> AsGate64(Gate<int, int> gate)
{
    Gate<int64, int64> h;
- h << [=](int64 a, int64 b) { return gate((int)a, (int)b); };
+ h << [=](int64 a, int64 b) {
+   if(b > (int64)INT_MAX << 10){
+     return gate((int)(a>>32), (int)(b>>32));
+   }
+   if(b > INT_MAX){
+     return gate((int)(a>>22), (int)(b>>22));
+   }
+   return gate((int)a, (int)b);
+ };
    return h;
}
```

Tested with MSC2017 32 bit
