Username: Pralay Patoria **Book:** Under the Hood of .NET Memory Management. No part of any chapter or book may be reproduced or transmitted in any form by any means without the prior written permission for reprints and excerpts from the publisher of the book or chapter. Redistribution or other use that violates the fair use privilege under U.S. copyright laws (see 17 USC107) or that otherwise violates these Terms of Service is strictly prohibited. Violators will be prosecuted to the full extent of U.S. Federal and Massachusetts laws.

The Long and Winding Road

We've gone from an allocation and garbage collection in .NET, right through object retention and promotion, and on to subsequent allocation of ephemeral segments. Beyond segments, we looked at how <code>VirtualAlloc</code> is used to create ephemeral segments, what <code>VirtualAlloc</code> actually does, and what it translates to. Finally, we've broken memory allocation down into its raw representation within the OS, and analyzed how huge Virtual Address Spaces are managed to give processes access to resources far in excess of their machine's physical memory limitations.