

Project Number	TQP112
Project Title	Physics for Ecosystem
Project Description	<p>Most of the outdoor games today have a huge environment in which the eco system becomes one of the most important components that can drastically improve the quality of the scene. Currently, the eco system rendering is still a big problem due to the massive number of objects making ecosystem physics simulation an even worse problem. Some components of the eco system like trees do have a very cheap physics model, but shrubs, grass normally don't include any physics simulation.</p> <p>The aim of this project is to create a framework that can simulate a huge eco system with believable physics model to improve player's experience.</p> <p>Some goals of the project are:</p> <ul style="list-style-type: none"> <li>- High density foliage and debris</li> <li>- Procedurally distributed on the fly</li> <li>- Believable physics simulation (can interact with vehicles, wind...)</li> </ul>
Hardware/Software/References	<ul style="list-style-type: none"> <li>- <a href="http://www.vterrain.org/Plants/">http://www.vterrain.org/Plants/</a> (all about eco system)</li> <li>- <a href="http://www.antisphere.com/Research/Forest.php">http://www.antisphere.com/Research/Forest.php</a> (rendering)</li> <li>- <a href="http://www.essentialmath.com/tutorial.htm">http://www.essentialmath.com/tutorial.htm</a> (for physics)</li> </ul>