During the past 20 years 3D seismic surveys have become a critical component in the discovery and exploitation of commercial oil and gas deposits. Offshore, the majority of 3D surveys are acquired using the towed streamer method of data acquisition. This presentation will provide an overview of the basic temporal and spatial sampling considerations that form the basis of a towed streamer 3D survey design. That information will then be used to demonstrate how modern marine 3D seismic vessels integrate state-of-the-art seismic source systems, receiver/recording systems, and navigation and positioning systems to meet the 3D imaging objectives.