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3D Track Triggering at CDF BRANDON PARKS, CDF COLLABORATION — In order to account for increased luminosity in the Tevatron at Fermilab, an upgrade of the Level 1 tracking system at CDF is necessary. The CDF detector utilizes a Central Outer Tracker (COT), which consists of 96 layers of wires arranged in 8 superlayers that provide information on the momentum and trajectory of charged particles created in collisions between protons and anti-protons. The COT alternates between axial superlayers which provide tracking information only in directions transverse to the beam-line and stereo superlayers that also provide tracking information parallel to the beam-line. The eXtremely Fast Tracker (XFT) is responsible for Level 1 track finding, and is currently only using axial data to reconstruct tracks at CDF. The XFT upgrade involves the addition of the Stereo Linker Association Module (SLAM). The SLAM will utilize the previously existing XFT setup as well as information from the stereo superlayers in the COT to identify useful 3-dimensional tracks. I will give an overview of the hardware configuration and describe the SLAM pattern recognition algorithms.

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