Logarithmic sheaves of complete intersections

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We define logarithmic tangent sheaves associated with complete intersections in connection with Jacobian syzygies and distributions. We analyse the notions of local freeness, freeness and stability of these sheaves. We carry out a complete study of logarithmic sheaves associated with pencils of quadrics and provide a complete classification of free pencils of quadrics on $\mathbb{P}^n$. Finally we produce examples of locally free, non free pencils of surfaces in $\mathbb{P}^3$ of any degree k at least 3, answering (in the negative) a question of Calvo-Andrade, Cerveau, Giraldo and Lins Neto about codimension foliations on $\mathbb{P}^3$.