Let $\star$ be a star operation on an integral domain $R$. The domain $R$ is a $\star$-completely integrally closed domain (or simply $\star$-CICD) if $(AA^{-1})^\star = R$ for all nonzero (fractional) ideals $A$ of $R$. In this talk, we discuss $\star$-CICDs, especially the local case. We show that if the maximal ideal of a local $\star$-CICD is a $\star$-ideal, then $R$ is $\star$-principal ideal domain. This will lead as consequences to various results on local Krull domains and local completely integrally closed domains. We also establish that any $\star$-CICD $R$ is locally a PID when $\star$ is induced by the localizations at prime ideals of $R$. (Received August 16, 2013)