We discuss some of the ideas involved in showing that weak (local) solutions to linear parabolic systems in the Lion’s class are, in fact, locally Hölder in time with values in spatial $L^p$. This involves studying the global solution to the inhomogenous equation obtained by multiplying the solution by a cut-off function. The global formulation brings the Fourier transform and singular integrals into play. This allows us to produce $1/2$-order time regularity in $L^2$, which means the desired Hölder regularity is a matter of improving the integrability of this fractional time derivative to $L^p$ for some $p > 2$. The techniques involved have applications to other (local and non-local) systems. (Received August 23, 2018)