Dear Lipman,

Thanks for your letter. The fact that for a proper scheme $X$ over a field $k$, every formal arc in $\text{Pic} \times k$ through the origin defines an element of $\text{Pic}(X \otimes_k k[[t]])$ (a fortiori in $\text{Pic}(X \otimes_k k[[t]])$), comes from the fact that the obstruction to finding the element in $\text{Pic}(X \otimes_k k[[t]])$ is in the Brauer group $\text{Br}(k[[t]])$, and that the reduction map

$$\text{Br} k[[t]] \to \text{Br} k$$

is injective.

The result

A rational $\to$ local $k$ o-dimensional is true whenever $A$ is given with a field of representation $k \cong k(A)$, as in a set.

The reason for this is that, if $X$ is a degenerations, the explicit construction of $\text{Pic}$ yields that it's tangent space to the origin is canon. (see $\text{Pic}((C \times D)_{\text{sing}} \times \mathbb{P}^1_{\mathbb{C}}).$ This does not contradict your example, as formation of the