13.8.2021: Upper bound of intersection multiplicity

Since the pyramids idea didn't work out, I've put my hopes into my dear friend ꩜.
Let z_0 be the step at which the algorithm ends. It is the first position where the ꩜ sequence reaches 0.

Example 1. *Let*

$$\begin{aligned} F &= x^2 - y^5 &(1)\\ G &= x^4 + xy^5 - y^7 &(2) \end{aligned}$$

Then the corresponding sequence is ꩜ $= [1, 2, 2, 2, 2, 2, 1, 1, 1, 0]$. *(In the version below,* 1 *represent interesting* $1s$ *and* $\cdot$ *represent boring* $1s$*.)*

$$\begin{array}{ccccccccccccc} 1 & 2 & 2 & 2 & 2 & 2 & 1 & 1 & 1 & 0 & 0 & 0 & \cdots \\ = & = & = & = & = & = & = & = & = & = & = & = & \cdots \\ 1 & 2 & 2 & 2 & 1 & 0 & -1 & -2 & -3 & -4 & -5 & -6 & \cdots \\ & & & & 1 & 1 & \cdot & \cdot & \cdot & \cdot & \cdot & \cdot & \cdots \\ & & & & & 1 & 1 & \cdot & \cdot & \cdot & \cdot & \cdot & \cdots \\ & & & & & & & 1 & \cdot & \cdot & \cdot & \cdot & \cdots \\ & & & & & & & & 1 & \cdot & \cdot & \cdot & \cdots \\ & & & & & & & & & & \cdot & \cdot & \cdots \\ & & & & & & & & & & & \cdot & \cdots \end{array}$$

In this case, $z_0 = 10$*,*

It is be also defined as the smallest z, such that $\mathcal{O}/(F, G, I^z) \cong \mathcal{O}/(F, G)$. The intersection multiplicity have the following property:

$$I_O(F, G) \leq m \cdot n + t \cdot (z_0 - n - m), \tag{3}$$

(here m and n are the multiplicities of F and G at O, and t is the number of their common tangents at O) This is a direct consequence of how many "ones" can we fit into the sequence before it ends.
If we could find some pretty upper bound for z_0, it would give us an upper bound for the intersection multiplicity itself. The examples suggest that the bound for z_0 it could be possibly a fairly low number, something like $(\deg(F) + \deg(G))$, or even $(m + max\{\deg(F), \deg(G)\})$ or $(t + max\{\deg(F), \deg(G)\})$.