**ProdduturuAneeshPavanHW18CS6001**

**Aneesh Pavan Prodduturu**

**Q:**

**Copy reference method, how to select an independent first column in Houdini SideFX?**

**A:**

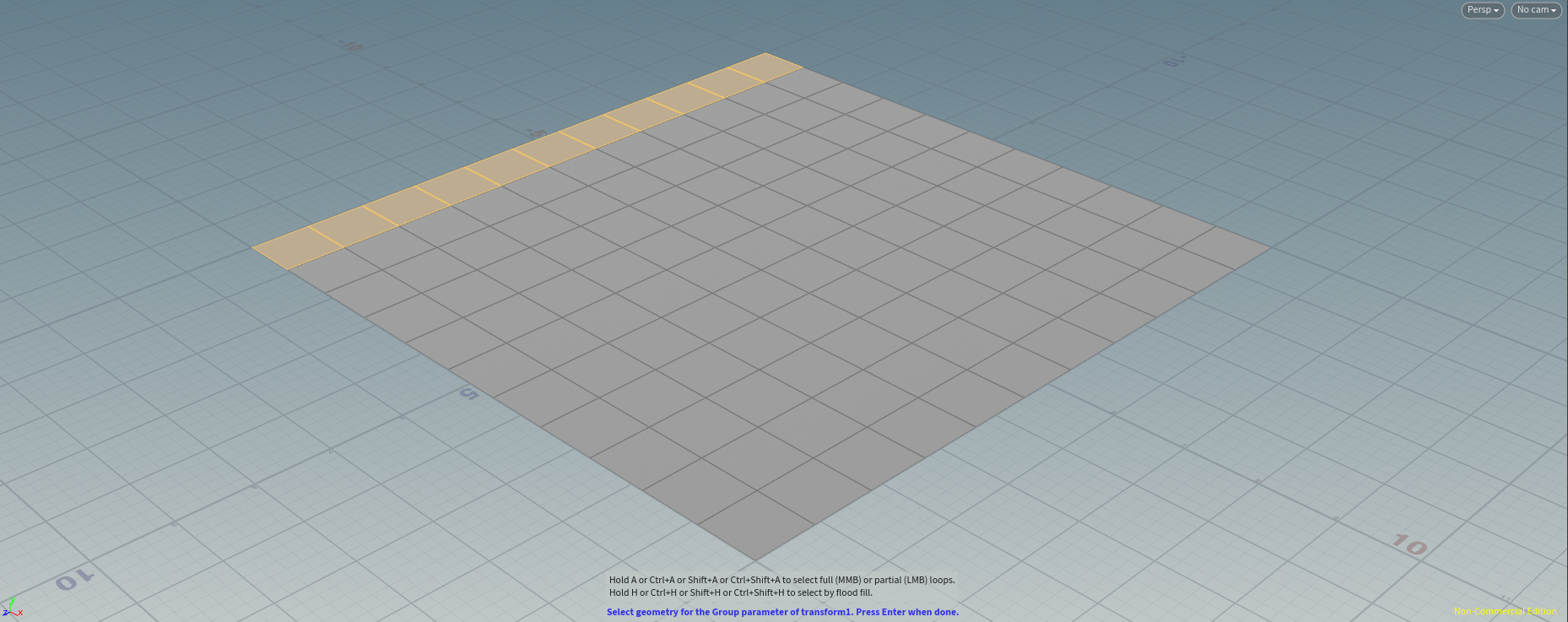
* Make network pane geometry out of objects and add one grid to it.
* Add ch("cols") to rows in the grid parameter pane to automatically change rows based on the columns.
* There are 2 ways of doing the copy reference method, one by selecting group type as primitives and the other with points.
* For primitives, the expression for the group in the transform node will be

**0-`(chs("../grid1/rows")-2)\*(chs("../grid1/cols")-1)`:`(chs("../grid1/cols")-1)`**

* For points, the expression for the group in the transform node will be

**0-`(chs("../grid1/rows")-1)\*chs("../grid1/cols")`:`chs("../grid1/cols")`**

* For primitives it looks like this:

****