
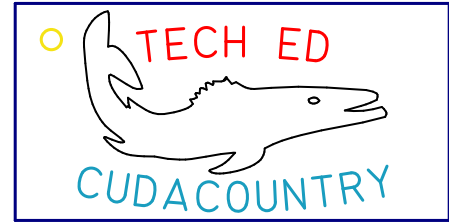


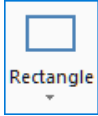
# Mastercam 2020 Chapter 17 Cudacountry and Cuda


## A. Create Rectangle.

Step 1. If necessary start a new Mastercam file, click **New**  on the Quick Access Toolbar QAT (**Ctrl-N**).  
Units **inches**.



Step 2. On the Wireframe tab  click **Rectangle**



Step 3. In the Rectangle function panel:  
under Dimensions, **Fig. 1**  
**Width 3**  
**Height 1.5** and press ENTER  
Press **O** key on keyboard to select  
Auto Cursor **Origin** override, **Fig 2**  
Click OK .

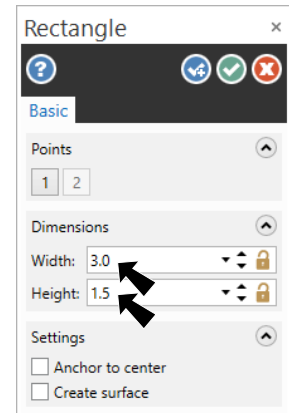


Fig. 1

## B. Save As "CUDACOUNTRY AND CUDA"

Step 1. Click **Save As**  (**Ctrl-Shift-S**) on the Quick Access Toolbar QAT.

Step 2. Key-in **CUDACOUNTRY AND CUDA** for the filename and press ENTER.



Fig. 2

## C. Merge Cuda File.

Step 1. Download **cuda2020.dxf** from Mastercam cudacountry web page. [http://www.cudacountry.net/html/mastercam20\\_toc.html](http://www.cudacountry.net/html/mastercam20_toc.html)

Step 2. Back in Mastercam 2020, click File Menu > Merge.

Step 3. In the Open dialog box:  
Set **Files of type** to  
**AutoCAD.DXF**, **Fig. 3**  
Select the **cuda2020.dxf** file  
and click Open.

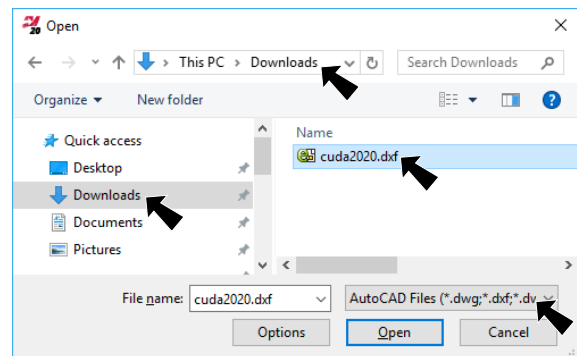



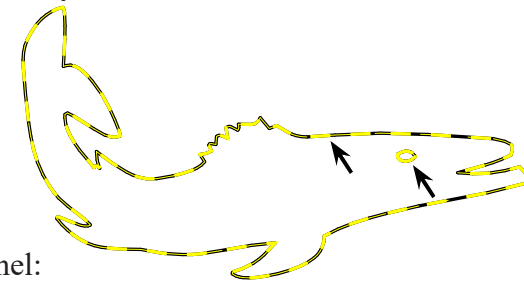
Fig. 3

Step 4. **Right click** the graphics window and click **Fit**  (**Alt-F1**).



The cuda is very large so you can not see the rectangle.

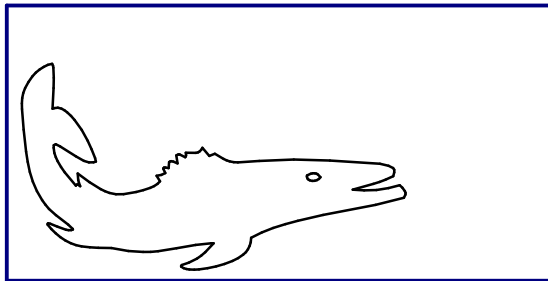
Step 5. In the Merge Pattern function panel:  
 under Position, **Fig. 4**  
 click **Scale** button

Step 6. **Shift-click cuda and cuda eye** to select, then click **End Selection**  
 (ENTER).




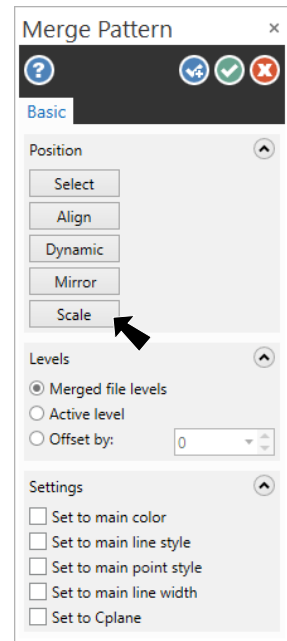
**Fig. 5**

Step 7. In the Scale function panel:  
 under Method, **Fig. 6**  
 select **Move**  
 under Reference point  
 uncheck **Auto center**  
 under Uniform  
**Scale .00023**  
 Click OK  and  
 click Cancel .

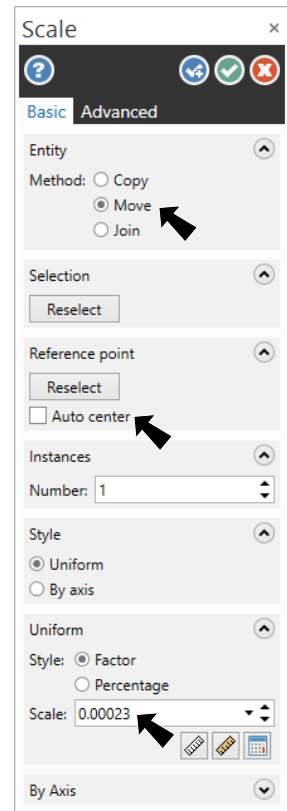


**Fig. 7**

Step 8. **Right click** the graphics window and click  
**Fit**  (Alt-F1).



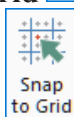


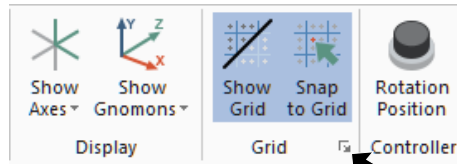
**Fig. 4**



**Fig. 6**


**D. Set Grid and Snap .1.**

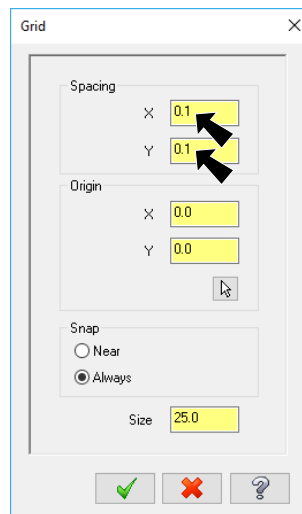
Step 1. On the View tab   
 click **Show Grid**  and  
**Snap to Grid** .



**Fig. 8**

Step 2. Click the **Dialog Box Launcher**  (Alt-G), **Fig. 8**.

Step 3. In the Grid Settings:  
 under Spacing, **Fig. 9**  
**X and Y Spacing .1**  
 Click OK   
 Click No.



**Fig. 9**

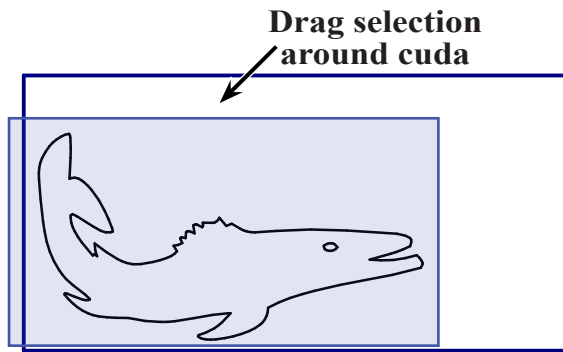
## E. Transform Move Cuda.

Step 1. On the Transform tab  click **Translate** .

Step 2. Drag a selection around the cuda and click **End Selection**

 (ENTER)

**Fig. 10.**



**Fig. 10**

Step 3. In the Translate function panel:

under Method, **Fig. 11**

select **Move** 

under Vector From/To

Click **Reselect** button

Click **center point of cuda** **Fig. 12**

Click **X 1.5 Y .9** to translate to.

Use the tracking in Status Bar to determine location, **Fig. 13.**

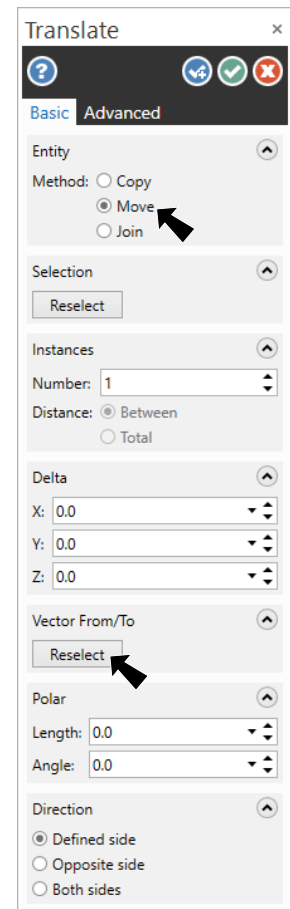
And the grid, **Fig. 14.**

Click OK .

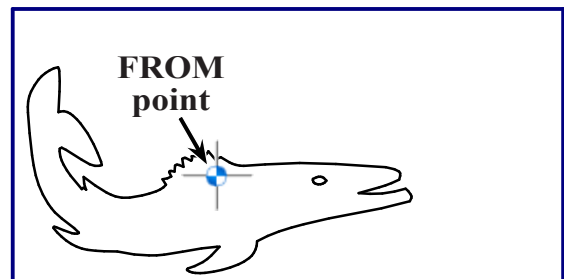
Step 4. **Right click** the graphics window and click

**Clear Colors** .

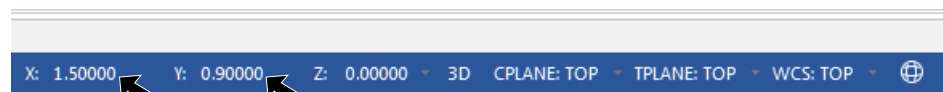
Step 5. Save  (Ctrl-S).



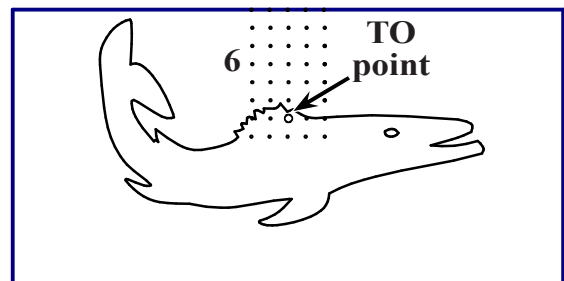
**Fig. 11**



**Fig. 12**




**Fig. 13**



**Fig. 14**

## F. Create TECH ED Text.

Step 1. Create the TECH ED red. **Right click** in the graphics window and on the Mini Toolbar click **Wireframe Color**  drop down arrow, then click red, Fig. 15.

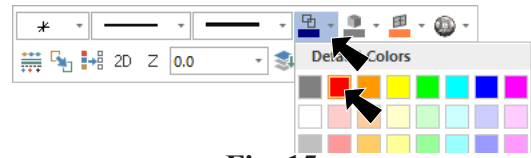
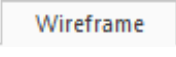
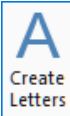


Fig. 15

Step 2. On the Wireframe tab  click **Create Letters** 

Step 3. In the Create Letters function panel:  
under Font, **Fig. 16**  
select **Mastercam (Box)**  
under Letters  
Lock Caps and key-in **TECH ED**  
under Dimensions  
**Height .2**  
**Spacing .07**  
under Alignment  
select **Arc**  
select **Top**  
**Radius 5**

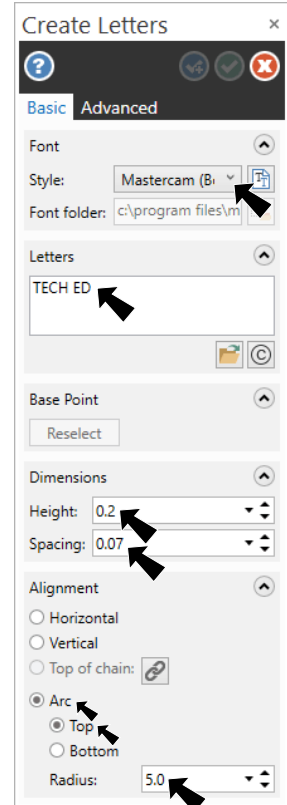



Fig. 16

Press **spacebar** to activate Auto Cursor **Fast Point** 

Key-in **1.5, -3.85**  and press ENTER

Click OK .

Step 4. Save  (Ctrl-S).

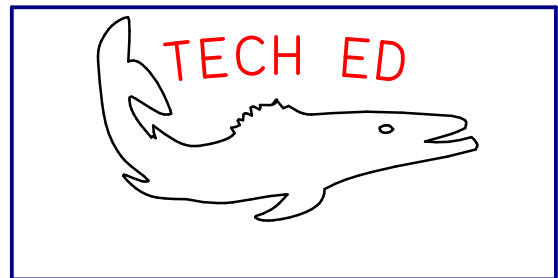



Fig. 17

## G. Create CUDACOUNTRY Text.

Step 1. Create the CUDACOUNTRY cyan. Right click in the graphics window and on the Mini Toolbar click **Wireframe Color**  drop down arrow, then click cyan, Fig. 18.

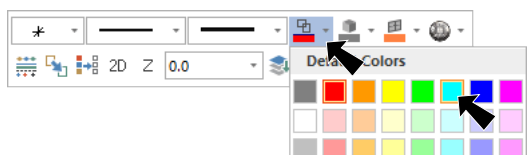
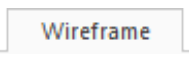


Fig. 18

Step 2. On the Wireframe tab  click **Create Letters** 

Step 3. In the Create Letters function panel:  
 under Font, **Fig. 19**  
 select **Mastercam (Box)**  
 under Letters  
 Lock Caps and key-in **CUDACOUNTRY**  
 under Dimensions  
**Height .2**  
**Spacing .07**  
 under Alignment  
 select **Arc**  
 select **Bottom**  
**Radius 5**

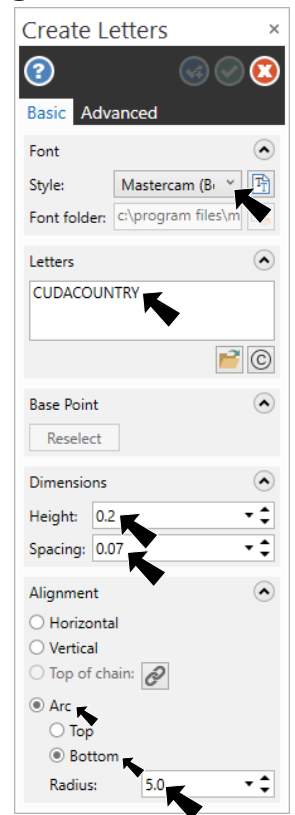





Fig. 19

Press **spacebar** to activate Auto Cursor **Fast Point**   
 Key-in **1.5, 5.26**  and press ENTER  
 Click OK .

Step 4. Save  (Ctrl-S).

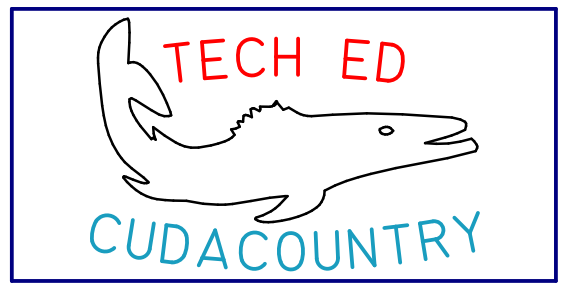



Fig. 20

## H. Create Circle For Hole.

Step 1. Sketch **circle yellow**. **Right click** in the graphics window and on the Mini Toolbar click **Wireframe Color**  drop down arrow, then click **yellow**, Fig. 21.

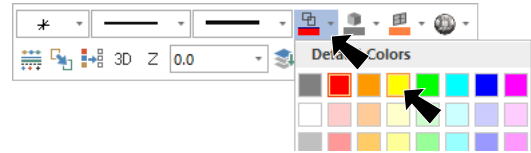

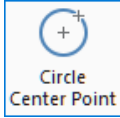





Fig. 21

## I. Create Circle For Hole.

Step 1. On the Wireframe tab  click **Circle Center Point** .

Step 2. In the Circle Center Point function panel:  
under Size, **Fig. 22**  
**Diameter .14** and press ENTER

Press **spacebar** to activate AutoCursor **Fast Point**   
Key-in **.25, 1.25**  into Fast Point and press ENTER **twice**.  
Click OK .

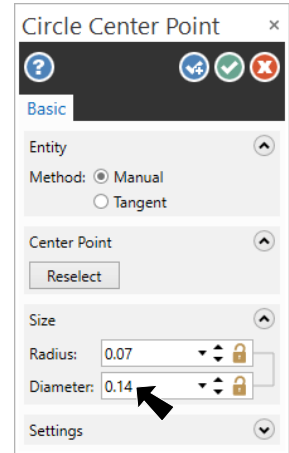


Fig. 22

Step 3. Save  (Ctrl-S).

Use Chapter 16 for toolpaths.

(.25, 1.25)

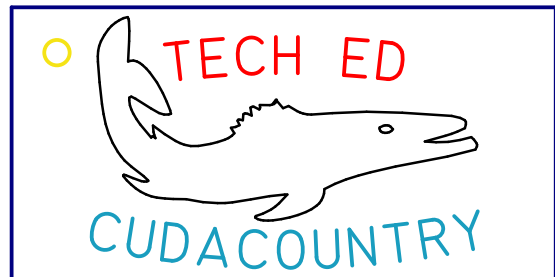


Fig. 23