

## Capsim Simulation: A Brief Explanation Selling Capacity

On page 13 of the Capstone Team Member Guide 2012, Section 4.3 Production, Subsection 4.3.1 there is an explanation for Capacity. Let's say a company has a capacity of 1800 in the Production Module for the Traditional segment product (Example **Eat** for Team Erie). This means you can manufacture 1,800,000 units of **Eat** during the 1st shift of 8 hours. However, your company actually has double the capacity. You can produce 3,600,000 units. Thus a second shift produces another 1,800,000 units but you pay time and half for the second shift.

If your company wants to produce 1,500 or 1,500,000 units of the product **Eat**, you can sell capacity. If you sell 200 or 200,000 units of capacity, you get back \$0.65 per unit or 200,000 times \$0.65 which equals \$130,000. If this capacity is depreciated by \$30,000, you will have a gain, \$130,000 minus \$30,000 or **\$100,000**. This will be shown on the income statement as a negative write off.

If the depreciated value of the capacity is \$140,000 -\$130,000 you will **lose \$10,000**. This is shown as a write off on the income statement. The Production spreadsheet does the calculations.

A team can sell the capacity if money is needed for something else. But my advice is not selling any capacity unless you are going to get out of a segment completely.

You can buy back capacity later but it will cost you more money. Capacity per unit costs \$6.00 for floor space **plus** \$4.00 times the automation rating in that segment. Let's say your automation rating in the Traditional Segment is 4.0. If you buy back 200 or 200,000 units of capacity it will cost you [200,000 times \$6.00 which equals \$1,200,000] **plus** [200,000 units times (\$4.0 x 4.0 = \$16.00) or \$3,200,000].

The cost to replace capacity is [\$1,200,000 plus \$3,200,000 which equals \$4,400,000]. This is an outrageous amount. Therefore it is much too expensive to buy back capacity. Note that if you increase capacity in a segment the increased capacity takes place the next year. Although automation is expensive, your company can automate a segment and decrease production labor costs over time.

If a company wants to exit a segment then sell the entire capacity for that segment. This liquidation of production sells the remaining inventory for half the average cost of production. The Capstone Guide states that if a team wants to sell inventory for full price, sell all but one unit of capacity.

My advice is do not sell capacity unless you completely exit a segment.