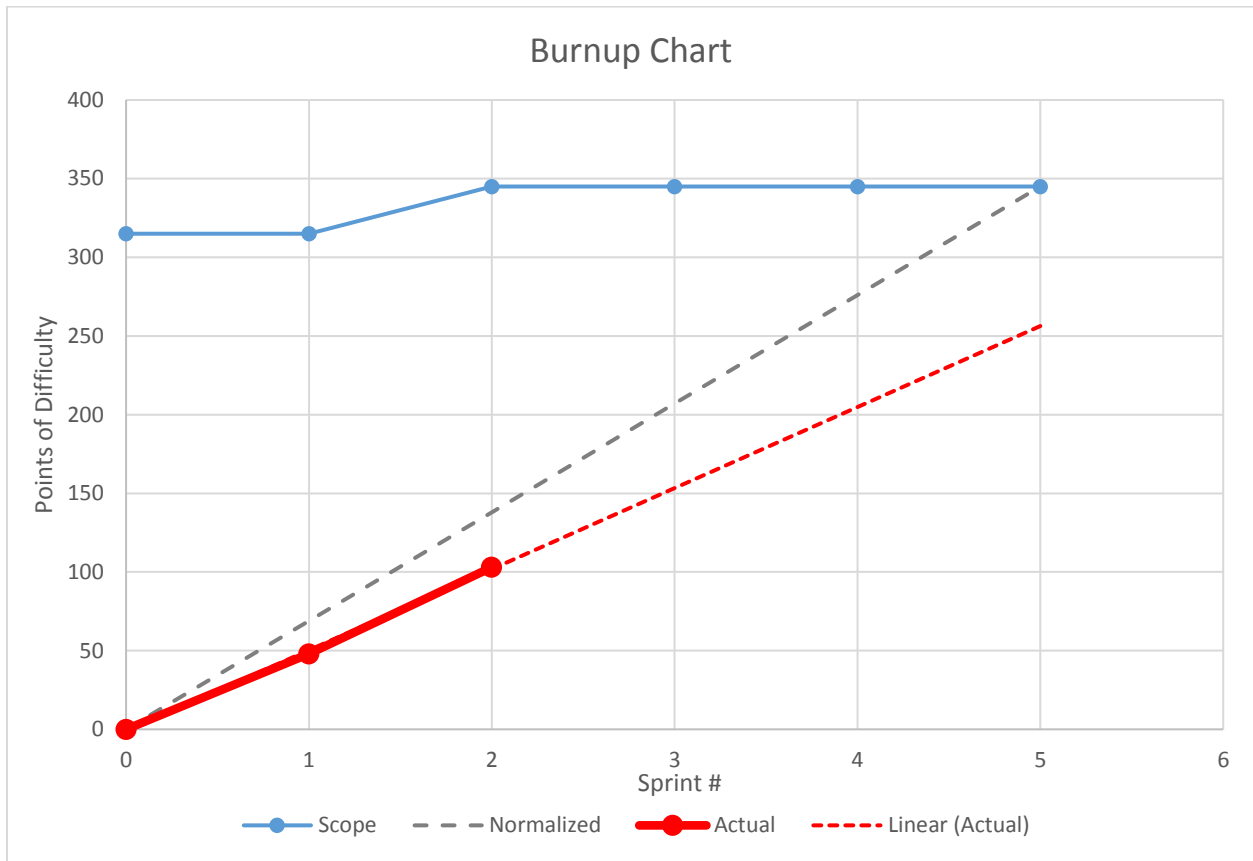


Burnup Chart Example



This is a very good burnup chart.

- Blue line = scope
- Thick red line = actual progress to date
- Dotted red line = the trend line for the actual progress to date
- Grey dashed line = the amount of work that would be completed if 20% of the work were done each Sprint

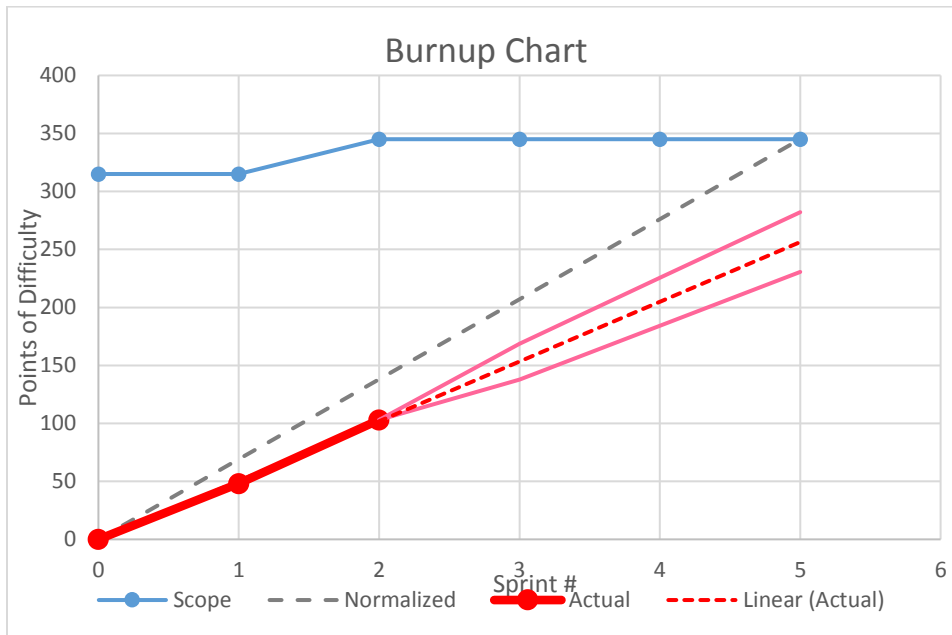
It was made from Excel using this data:

Burnup Chart Deluxe

Sprint	0	1	2	3	4	5
Scope	315	315	345	345	345	345
Normalized	0	69	138	207	276	345
Actual	0	48	103			

This chart was created as a Scatter Plot (x, y) chart.
A trendline was created for the Actual data.

Burnup Chart with Cone of Uncertainty



The Cone of Uncertainty consists of optimistic and pessimistic trendlines.

This chart was created as a Scatter Plot (x, y) chart. A trendline was created for the Actual data. Then we asked Excel for the equation of the trendline to get slope and intercept. Then we created optimistic and pessimistic lines using optimistic and pessimistic slopes

Building the Cone of Uncertainty
 The optimistic and pessimistic Y values match the last actual value for the last Sprint. But then the projections modify the slope to build the cone. In this case a 10 percent modification either way.

$$y = M_c * mx + b$$

in this case, $y = 51.5x - 1.1667$

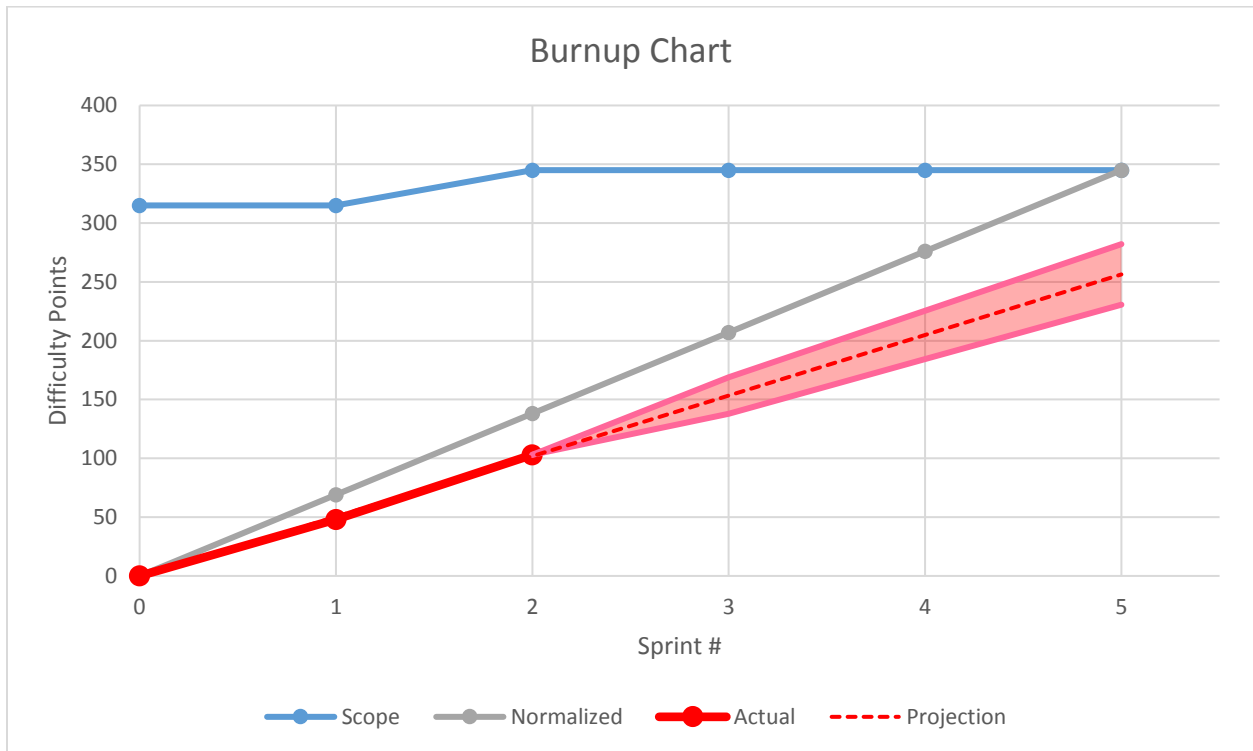
M_c is a modifier to slope and may be optimistic or pessimistic

Intercept of trendline	-1.1667
Slope of trendline	51.5
Modifier of slope of optimistic line*	1.1
Modifier of slope of pessimistic line*	0.9

** for the cone of uncertainty lines, you can select whatever optimistic and pessimistic slope modifiers you would like*

Sprint	0	1	2	3	4	5
Scope	315	315	345	345	345	345
Normalized	0	69	138	207	276	345
Actual	0	48	103			
Optimistic			103	168.7833	225.4333	282.0833
Pessimistic			103	137.8833	184.2333	230.5833

Burnup Chart with Shaded Cone of Uncertainty



This chart was done with an XY plot in MS Excel using the **first six** rows of the table. The bottom area and delta fill series are "stacked areas" and are added (Select Data) after chart creation. The Delta Fill series is colored a very transparent red. See <https://peltiertech.com/fill-under-between-series-in-excel-chart/> for info on how to shade between the optimistic and pessimistic lines.

Sprint	0	1	2	3	4	5
Scope	315	315	345	345	345	345
Normalized	0	69	138	207	276	345
Actual	0	48	103			
Optimistic			103	168.7833	225.4333	282.0833
Pessimistic			103	137.8833	184.2333	230.5833
Bottom Area	0	0	103	137.8833	184.2333	230.5833
Delta Fill	0	0	0	30.9	41.2	51.5