> Can you describe how you are using the SVD to solve your equation? You have mentioned calculating the inverse of A but that is not necessary. From what I've read, it is better to multiply the B vector by the inverse SVD components in succession than calculating the inverse of A and then multiplying B with that

I am now using

svdc,A ,w,u,v,/double
X=SVSOL(U, W, V, rhs,/double), Here A is 255X400 matrix and the duplicate rows have not been removed. Do you think I should do it differently?

> I have no idea what you meant by that. Are you first calculating a solution X to the equation AX=B and then fitting a polynomial to that X? If that polynomial fit is the end result you need, why don't you formulate your model so you can fit the polynomial directly to the measurements in B?

Thats a good idea I can try that !!