Reflection Report on ROC: Software estimating the radius of convergence of a power series

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1 Revision History

Date	Version	Notes
24 December 2020	1.0	First submission

The ROC project set out to estimate the radius of convergence R_c of a given power series based on the three term analysis for a real pole, six term analysis for a pair of complex conjugate poles, and top line analysis (Chang and Corliss, 1982, pp. 127–128). The inputs are a truncated finite sequence of scaled coefficients and their scaling. The output is R_c and the order of the singularity μ.

2 Project Overview

Our objective is correctness, accuracy, and timing. ROC is an idea for an academic research project. The impression from this software will guide future decisions about this idea as a viable research project.

3 Key Accomplishments

In general, this project went very well. Our research group can be confident that ROC is achievable. All the achievements were accomplished in this past semester through CSE 701 which taught scientific computing with C++ and CSE 741 which taught scientific computing documentation.

4 Key Problem Areas

I don't think anything went wrong. I'm grateful for the opportunities afforded me to persue this scientific computing software development project.

5 What Would you Do Differently Next Time

Nothing. The process just takes a whole lot of time to do it right.