

Understanding Pyramid Representations + Electron Microscopy Images Using Java + Prolog Related Software for R&D.

Nirmal Tej Kumar

Independent Consultant – Informatics/Imaging/Software/AI/Nanotechnology/HPC R&D.
R&D Collaborator – USA/UK/Israel/India/Brazil.
Current Member – ante Inst,UTD,Dallas,TX,USA.
Contact_info – hmf2014@gmail.com

[I] Abstract :

Probing cryo-Electron Microscopy Images Using Pyramid Representations in the Context of :

[Image J/ImageJ_Pyramid_Plugin/JikesRVM – Research Virtual Machine(RVM)/JVM – Java Virtual Machine/

Jl Prolog – Java based Prolog/HPC-High Performance Computing] for Next Generation Java based

[AI + Image Processing + Informatics] R&D Test Platforms.

[II] JVM/RVM-Research Virtual Machine based Image Processing+Informatics R&D Framework :

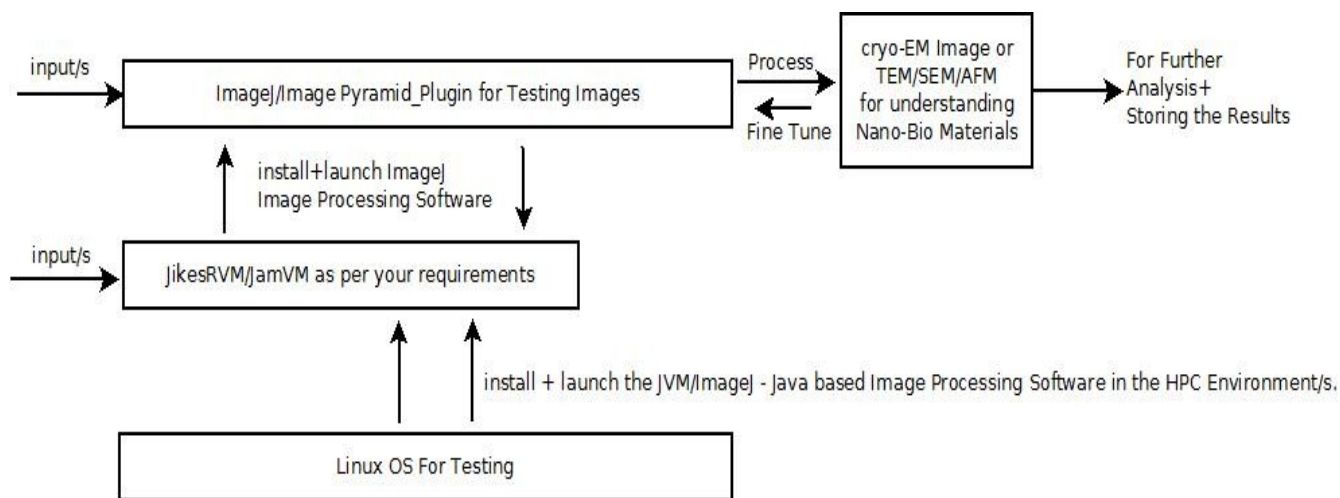


Figure I - Algorithm I - Testing Electron Microscopy Images - Using ImageJ Software in Heterogeneous Computing Environments.

Actual Implementation Might Vary - Please Check & Satisfy Yourselves.

Read our Publications/Notes on Vixra.org.

Thanks - Dr.Nirmal

Testing in Progress at the time of Submission.

[Figure I – Algorithm I – Simple Idea for Testing Our Concept.]

“Pyramid, or pyramid representation, is a type of [multi-scale signal representation](#) developed by the [computer vision](#), [image processing](#) and [signal processing](#) communities, in which a signal or an image is subject to repeated [smoothing](#) and [subsampling](#). Pyramid representation is a predecessor to [scale-space representation](#) and [multiresolution analysis](#).”

[Ref[1] – Source – Wiki]

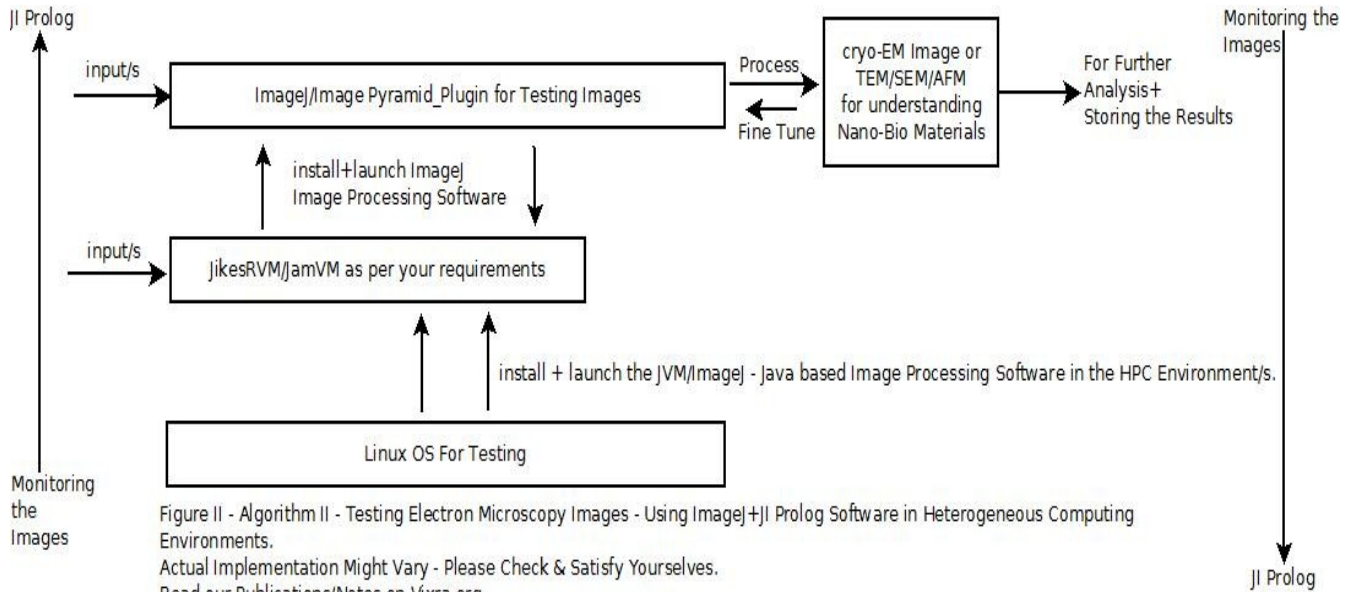


Figure II - Algorithm II - Testing Electron Microscopy Images - Using Imagej+JI Prolog Software in Heterogeneous Computing Environments.
 Actual Implementation Might Vary - Please Check & Satisfy Yourselves.
 Read our Publications/Notes on Vixra.org.
 Thanks - Dr.Nirmal
 Testing in Progress at the time of Submission.

[Figure II – Algorithm II – Simple Idea for Testing Our Concept.]

[III] Information on Related Publications ((via)) Vixra.org :

[a] <https://vixra.org/pdf/1901.0133v1.pdf> – Nirmal.

[IV] Acknowledgment/s :

Special Thanks to all my MENTORS+FRIENDS+COLLABORATORS. NON-PROFIT R&D.

[V] Conclusion :

A Simple & Useful Short Communication is presented for further R&D + Analysis.

[VI] References :

- [1] [https://en.wikipedia.org/wiki/Pyramid_\(image_processing\)](https://en.wikipedia.org/wiki/Pyramid_(image_processing))
- [2] https://en.wikipedia.org/wiki/Scale_space
- [3] <https://imagej.nih.gov/ij/plugins/pyramid/> && <https://imagej.nih.gov/ij/features.html>
- [4] https://imagej.nih.gov/ij/plugins/pyramid/Image_Pyramid.java
- [5] <https://www.jikesrvm.org> && <http://jamvm.sourceforge.net> – Jam VM – an Extremely Small Virtual Machine.
- [6] https://www.researchgate.net/publication/303462482_Understanding_JikesRVM_in_the_Context_of_Cryo-EMTEMSEM_Imaging_Algorithms_and_Applications_General_Informatics_Introduction_from_a_Software_Architecture_View_Point/citation/download.*****
- [7] <http://www.jiprolog.com/> – JI Prolog for Various Applications.

[THE END]