

ELEN4020A: Simplified Project:

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E. J. Otoo
School of Electrical and Information Engineering
University of the Witwatersrand

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1 Note on Project Modification

1.1 Reason for Simplification

The infrastructure for intended use for the projects could not be sustained. The two machine clusters, (hornet01 + hornet02 as a farm of 2 nodes) and the Jaguar cluster of 9 compute nodes. Our problems were primarily:

1. Lack of network connections,
2. Lack of networking reliability, and
3. Some software dependencies were not compatible.

1.2 New Requirements of the Project

Main Change: Instead of running two algorithms; a one-sided communication approach and either a UPC or UPC++ approach, you are required simply to perform the matrix transpose using straight MPI but with derived data-types. If you completed the project already based on the early requirements, there will be no penalties.

Grading: The modified grading is as shown below

Component	Issues Addressed	Points
Programs [60]	Input Data Generation	15
	Algorithm: use of derived data-types	15
	Algorithm: Correct running Code	15
	Good output illustration of correct running code	15
Report [40]	Abstract + Introduction	5
	Problem Description	5
	High-Level MPI- Algorithm-1.	10
	Descript. Exp. Environment	5
	Discussion of Results	10
	Conclusion + References	5

2 Available Resources

Hornet01 and Hornet02 both now have gcc-7.4 instead of gcc-6.5.0 and do run UPC-2.28.0. Both cannot be combined as a farmed machine. Passwordless-Ssh can be configured but still has tunnelling problems.

You need not run your code across multiple nodes. The jaguar clusters currently can run MPI jobs across multiple nodes but you are not obliged to use multiple nodes. You are free to run your code on multiple nodes if you so choose.

Remember to source the correct ".bash???" files the first time you login to setup the correct environments. The Jaguar cluster has not crashed since this weekend.