THESIS GUIDELINES

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School of Computing Checklist: (Checking is suspended on the **5th** mistake encountered!)

I. Document organization:
   A. General requirements:
      [ ] Acid free thesis paper (8 1/2" x 11") - original & copies
          (any 11" x 14" materials must be reduced to 8 1/2" x 11")
      [ ] Text on one side of paper only
      [ ] Standard type-face (Roman or `Courier`) of uniform size, color, and density (12 point,

Thesis Binding Invoice Procedure:

1. Secure the Thesis Binding Invoice form from either the School of Computing or the Library Serials Department.

2. The form is to be filled out in triplicate. In the address part of the form, use the School of Computing address and phone number (X2985) so that the library will notify the School when the copies of your thesis are returned from the bindery. We will pick up the School's copy of your thesis and secure any other bound copies you have ordered. We will then notify you to come pick up any personal copies you have ordered. If necessary we will mail your copies to you (only if you have left the Jacksonville area).

3. Fill in the Bibliographic Standards portion of the form as directed and obtain the School of Computing's certification for deposit. We will screen your thesis according to our checklist before certifying your thesis for deposit in the library.

4. Proceed to the University Cashier's Office and pay for the bound thesis copies that are being ordered.

5. Take a copy of the payment receipt, the Thesis Binding Invoice, and the copies of your thesis to the School of Computing Main Office. Be sure the original copy of your thesis is clearly identified. The School of Computing will screen the copies to determine if the depository conditions of the library have been met.

6. When the library has completed the certification process, it will send your thesis to the bindery and send the School of Computing the completed Thesis Binding Invoice certifying the thesis satisfies the library depository requirements.

7. If you have completed the Thesis Binding Invoice as requested, the library will notify the School of Computing when the bound copies of your thesis return from the bindery. The library will retain the original and one copy for its collection. We will pick up the remaining copies and retain one for the School of Computing. If you have ordered a copy for your advisor, we will see that your advisor gets a copy. If you have ordered one or more copies for yourself, we will notify you promptly to come get them from us. If you are no longer in the Jacksonville area, we will send your copies to you.

8. Clearance for graduation will require:

   (a) School of Computing certification that your program of study has been completed;

   (b) The School of Computing has received CD (pdf file format) copies of your thesis; CDs are to have a printed label formatted as noted in style note XII below. There should be a CD for the Graduate School and a CD for each bound copy of your thesis.

   (c) The School of Computing has received the Thesis Binding Invoice with the library certification that the thesis satisfies the library depository requirements;

   (d) Either the Thesis Binding Invoice is addressed to the School of Computing (so that library notification of the receipt of the bound thesis copies comes to the School), or the School is otherwise in receipt of a bound copy of your thesis.

THESIS GUIDELINES: style notes

STYLE NOTES - ref. ACM (Association for Computing Machinery), *Handbook of Technical Writing* (St. Martin's Press), *Science and Technical Writing*

IV. Where to use single spacing

A. Preface material, in the manner indicated on the "SAMPLE:" pages that follow

C. Beginning with the main text body use the form

- 2 -

D. Center pagination at the **bottom** of the page 1/2" above the bottom of the page.

For examples, see the SAMPLE pages that follow.

VII. Paragraphs

Do not begin paragraphs with an indent. Instead separate paragraphs with a blank line in single-spaced text and 3 blank lines in double-spaced text (one extra double line).

VIII. Chapter and Section Headings

A. Begin each chapter on a new page with the title in the form

Chapter 3

REAL-TIME FEEDBACK

centered, with a 1.5” margin above and 2 lines below (add one extra line when double-spacing). If the title is too long to fit, single space the continuation onto the next line.

B. Identify sections of chapters by adding decimal qualification to the chapter number; e.g., 3.1, 3.2, ... or subqualification such as 3.1.1. 3.1.2, ... for subsections. Left justify and title using the format:

2.3.2 Circular Analysis

for both sections and subsections. Separate the section title from the surrounding text by 2 blank lines (an extra single-space line when double-spacing); see the body of text sample for examples.

IX. Tables and figures

A. Place tables and figures as near after the place they are referenced in the text as feasible.

B. Draw a box around the table or figure to offset it and place it as soon after the paragraph in which it is referenced as feasible.

C. Center the title of the table or figure immediately under the box; use the title format

Figure 1: Real-time Raster Feedback

See the body of text sample for an example.

D. Leave at least 3 blank lines between the table or figure and any surrounding text (an extra carriage return when double-spacing).

X. Referencing

A. Identify references in the reference list by the notation

[<lead author last name><last 2 digits of year>]

e.g.,

[Williams96]

If the author has more than one article in the year add qualifiers A,B,... to identify each particular reference; e.g.,

[Henry97A] and [Henry97B]

If the reference has no identified author, use an abbreviation of the reference title in place of the lead author last name. Print publications should always have a date. For electronic sources, there may be as many as three dates giving year of publication, year of last update, and year of last access. The first of these dates that can be included in the reference is the one to use for the last 2 digits of the year.

Further examples for this format are given in the example reference list.

B. Separate references into two sections:

Print publications

Electronic sources

C. Alphabetize each of these sections on the reference identifiers.

D. For print publications provide detail on each reference to include in order:

Lead author, last name first and at least one initial.

Co-authors, initials followed by last name; all should be listed.

Title of the article in quotes (omit if the reference is a book).

Title of the journal (or book) in which the article appears, underlined (continuous).

For periodicals: Volume number, issue number then in parentheses the month (if available) and year of the publication.

<editor name>, ed. for papers referenced from edited collections.

The thesis "Real-time Analysis of Raster Feedback Algorithms in Partially Parallel Implementations" submitted by Ima Soc Student in partial fulfillment of the requirements for the degree of Master of Science in Computer and Information Sciences has been

Approved by the thesis committee: Date

_____ _____

<*name*>
Thesis Advisor and Committee Chairperson

_____ _____

<*name*>

_____ _____

<*name*>

Accepted for the School of Computing:

_____ _____

<*name*>
Director of the School

Accepted for the College of Computing, Engineering, and Construction:

_____ _____

<*name*>
Dean of the College

Accepted for the University:

_____ _____

<*name*>
Dean of the Graduate School

ACKNOWLEDGEMENT

I wish to specially thank my spouse for unwavering support and understanding during the

CONTENTS

FIGURES

ABSTRACT

Raster feedback algorithms appear to be the most promising means of achieving true parallelism in black box processors. Since black box processors may behave unpredictably in certain circumstances, real-time techniques are needed for the analysis of raster feedback algorithms. This problem has been treated to date only in the context of truly parallel implementations . . .

. . .

. . . via the tactic of partially parallel implementation. Representative examples of the technique are examined in actual implementation.

Implementation issues for the MUX-1 and the PMXA workstation using PP-C techniques show …

… a contrast with existing implementations.

Chapter 1

INTRODUCTION

Raster feedback algorithms were initially formulated in conjunction with the AZ10 project [Williams02] as the most promising means of achieving true parallelism in black box processors. A black box processor is one which "has known response characteristics for specific inputs, but which may behave unpredictably in other circumstances" [French96, page 14]. While a number of techniques have been developed for the analysis of raster feedback algorithms [e.g., Henry03A, Tsou04], very little is known regarding accomplishing the analysis in real time. Since raster feedback algorithms are normally considered only in the true parallel context, construction of effective analytical techniques for real-time function has proven to be an elusive research goal to date [Anraha05].

In this paper, we approach the problem from a more restrictive viewpoint; namely, . . .

. . .

. . . in a recent article on rastering techniques . . .

. . .

of [Tsou04]. This solution has weaknesses that can be partially addressed if the problem is approached via the tactic of partially parallel implementation.

1.1 Feedback Mechanisms

The basic feedback mechanism usually employed is that of alpha-beta response . . .

. . . which is not the case for all systems studied.

1.1.1 Ghost Response in Some Implementations

Various authors have reported that . . .

. . .

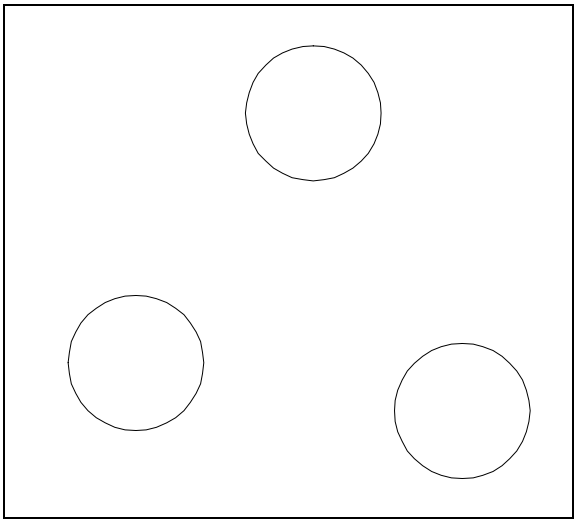
. . . in the first case. In the second case the situation is not . . .

. . . in the first case. In the second case the situation is not . . .

. . .

. . . as easily understood. This can be seen by considering the case of three processors as pictured in Figure 1. The first processor serves as a . . .

The final processor is caught in transition.



Chapter 2

PARTIALLY PARALLEL ANALYSIS

In this chapter, . . .

REFERENCES

Print Publications:

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French, A. B., Black Box Systems and Algorithms, Arguile and Sons, Paris, 1996.

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Gargantus, N. F., "Real-Time Semi-rastered Analytical Inversions for MK-series Processors," accepted for publication subject to revision in IEEE Transactions on Parallel Computing, contact AG Enterprises, Inc., 132 North Ridge Circle, Salmonville, WA 87321.

[Henry03A]
Henry, R. J., T. C. Chen, F. Sturbin, and J Coldster, "Report on the ARGH Workshop on Raster Feedback Algorithms," Proceedings of the 2003 ACM Conference on Parallel Computing 1, 1 (February, 2003), pp. 135-137.

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Henry, R. J. and T. C. Chen, "Rastering Feedback in Dual-processor Systems," Proceedings of the 2003 ACM Conference on Parallel Computing 1, 1 (February, 2003), pp. 39-44.

[Henry03C]
Henry, R. J., "Some Recent Results on Raster Feedback Analysis," Technical Report USNY-CSE-122, Department of Computer Science and Engineering, University of Schenectady, New York, 2003.

[PP-C03]
PP-C User's Manual for PMX Workstations, Preston-Manllichsen Co., Fresno, CA, 2003.

VITA

Ima Soc Student has a Bachelor of Arts degree from Mid-central Kentucky University in Applied Sciences, 2000 and expects to receive a Master of Science in Computer and Information Sciences from the University of North Florida, April 2006. Dr. Nathan Gargantus of the University of North Florida is serving as Ima's thesis advisor. Ima is currently employed as a systems programmer analyst at JRQ Industries and has been with the company for 3 years. Prior to that, Ima worked 18 months as a programmer