Rose-Hulman Institute of Technology
Computer Science and Software Engineering
Prof. Archana Chidanandan

Team ___1-5_____ **Milestone 1 (Assembly Language and Machine Language Specifications)** Total points ___29____

Evaluation Criteria Categories	Specific Criteria	Comments	Score
Consistency with higher level specifications	❑ Given the semantics of the Assembly Language (AL) specification, the sample program can be implemented ❑ Every instruction allowed by the assembly language (AL) specification has a unique machine language (ML) representation o Each instruction type includes enough fields to represent the information specified in the corresponding AL statements o Each field is allocated enough bits to represent all values allowed by the AL specification o For each instruction type, the total number of bits allocated to fields is not greater than the number of bits available ❑ Sample programs are translated into binary as described in ML specification	The program can be implemented and was in Pre-M1. The AL has ML conversions. Fields exist for all information necessary, and it is the appropriate length. The program is in binary as well.	(4/4)
Self-consistency	❑ Sample program uses the syntax described in AL specification ❑ Sample program uses the registers described in AL specification (number and type) ❑ Sample program uses the representation given in the ML specification, including correct values for fields specifying branch and jump targets	The syntax is followed and the registers are used correctly. The sample program is correctly translated.	(4/4)
Demonstration of design principles 1. Simplicity favors regularity 2. Smaller is faster 3. Good design demands good compromises 4. Make the common case fast	❑ AL instructions are easy to understand and are not overly specialized ❑ Number of instructions is minimized ❑ Number of registers is minimized ❑ Where the above criteria conflict, good compromises are made (to make the common case fast) ❑ Number of instruction types is small ❑ Instruction types have regularity	The commands are not overly specialized and although not minimized are made capable of doing may things with the 8 GP-registers. There are three instruction types and are similar by type.	(4/4)

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Evaluation Criteria Categories	Specific Criteria	Comments	Score

Documentation
❑ Organization
❑ Completeness
❑ Conciseness
❑ Grammar and style
• Memo
  • Objective assessment of design and status
• Design Documentation
  • Demonstration of conceptual understanding
  • Highlights interesting features
• Design Process Journal
  • Alternatives considered
  • Tradeoffs
  • Decisions
• Website
	❑ Clear English specifications
	  o Instruction set (incl. prototypical AL statements)
	  o Registers
	  ▪ Number of general purpose registers
	  ▪ Specification of special purpose registers (if applicable)
	  ▪ Naming conventions
	  ▪ Usage conventions
	  o Instruction types
	  o Representation of each instruction
		Your journal should be more in paragraph form than bullet form.
		
		The design document looks fine so far.
		
		The memo is ok so far. You could probably do better, but I have no specific improvements to suggest. Don't worry too much about it.
		
		Your website is a good one. I would like links to each file, not just to the documentation. This makes it easier for people to browse to specifics without hunting through the old stuff.
		
		-1 for the above.
			(17/18)