


Team ____1-3____

Milestone 1 (Assembly Language and Machine Language Specifications)

Total points ____28____ 

Evaluation Criteria Categories	Specific Criteria	Comments	Score
Consistency with higher level specifications	<ul style="list-style-type: none"> <input type="checkbox"/> Given the semantics of the Assembly Language (AL) specification, the sample program can be implemented <input type="checkbox"/> Every instruction allowed by the assembly language (AL) specification has a unique machine language (ML) representation <ul style="list-style-type: none"> <input type="checkbox"/> Each instruction type includes enough fields to represent the information specified in the corresponding AL statements <input type="checkbox"/> Each field is allocated enough bits to represent all values allowed by the AL specification <input type="checkbox"/> For each instruction type, the total number of bits allocated to fields is not greater than the number of bits available <input type="checkbox"/> Sample programs are translated into binary as described in ML specification 	<p>The program should be implementable.</p> <p>The AL and ML match up nicely in a 1 to 1 relation.</p> <p>The information is representable due to the limits on RD. (an interesting feature.</p> <p>The sample programs are converted to binary. This is a step up from the last version I received. The different machine-language separations will make this an interesting project.</p>	(4/4)
Self-consistency	<ul style="list-style-type: none"> <input type="checkbox"/> Sample program uses the syntax described in AL specification <input type="checkbox"/> Sample program uses the registers described in AL specification (number and type) <input type="checkbox"/> Sample program uses the representation given in the ML specification, including correct values for fields specifying branch and jump targets 	<p>The program now appears to be fully in your language.</p> <p>This is also accurate.</p> <p>These values all seem to be correct.</p>	(4/4)
Demonstration of design principles 1. Simplicity favors regularity 2. Smaller is faster 3. Good design demands good compromise 4. Make the common case fast	<ul style="list-style-type: none"> <input type="checkbox"/> AL instructions are easy to understand and are not overly specialized <input type="checkbox"/> Number of instructions is minimized <input type="checkbox"/> Number of registers is minimized <input type="checkbox"/> Where the above criteria conflict, good compromises are made (to make the common case fast) <input type="checkbox"/> Number of instruction types is small <input type="checkbox"/> Instruction types have regularity 	<p>The instructions are general due to the operation bit.</p> <p>The instruction set isn't minimal, but it will work well for general purpose. The registers are the standard 16.</p> <p>There are three instruction types, it seems.</p> <p>They seem to be consistent.</p>	(4/4)

Evaluation Criteria Categories	Specific Criteria	Comments	Score
<p>Documentation</p> <ul style="list-style-type: none"> <input type="checkbox"/> Organization <input type="checkbox"/> Completeness <input type="checkbox"/> Conciseness <input type="checkbox"/> Grammar and style • Memo <ul style="list-style-type: none"> • Objective assessment of design and status • Design Documentation <ul style="list-style-type: none"> • Demonstration of conceptual understanding • Highlights interesting features • Design Process Journal <ul style="list-style-type: none"> • Alternatives considered • Tradeoffs • Decisions • Website 	<ul style="list-style-type: none"> <input type="checkbox"/> Clear English specifications <ul style="list-style-type: none"> ○ Instruction set (incl. prototypical AL statements) ○ Registers <ul style="list-style-type: none"> ▪ Number of general purpose registers ▪ Specification of special purpose registers (if applicable) ▪ Naming conventions ▪ Usage conventions ○ Instruction types ○ Representation of each instruction 	<p>The documentation is thorough and fairly concise about it. The instruction set is fairly easy to understand and the register specifications are given and make sense. The types and representation of instructions is clear and organized.</p> <p>Your memo is too long, memos are to be one page or less. It appears a number of your statements could be cut down and still retain meaning.</p> <p>The design document is very well done. It highlights the interesting features of the project, such as the bit for altering the operation. It also highlights the RD problem and how it is handled.</p> <p>The design process journal is also well done. It covers alternatives and why decisions were made instead of others.</p> <p>The website is lacking; it does not appear professional. When I open it I should see the current memo and perhaps past memos in a clear format. The links should be organized somewhere. -1 </p> <p>Specify special purpose registers somewhere (PC,EPC,etc) -1</p>	<p>(16/18)</p>