

# OneUp Wi-11 Assembler – Meeting Minutes

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Revised by: Logan Coulson

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## 01/26 – Responsibility Assignments

**Date:** Wednesday, January 26th

**Location:** 560 Classroom: Dreese 305; The Ohio State University

**Time:** 2:20pm – 2:30pm

**Attendees:** Andrew Canale, Logan Coulson, Joshua Green, Andrew Groot, Ryan Paulson (via phone)

**Scribe:** Joshua Green

### Agenda:

1. To determine the responsibility of the following positions:
  1. User's Guide
  2. Programmer's Guide
  3. Software Design
  4. Testing
  5. Meeting Minutes
  6. Coding

### Results:

1. The following assignments were made based on interest and ability:
  1. User's Guide – Andrew Canale
  2. Programmer's Guide – Logan Coulson
  3. Software Design – Andrew Groot
  4. Testing – Ryan Paulson
  5. Meeting Minutes – Joshua Green
  6. Coding – Distributed
    1. Notes: Ryan requested a heavy coding workload.

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## 01/27 – Forum Post: Initial Software Design Progress

**Date:** Thursday, January 27th

**Location:** OneUp Forum: <http://andrewcanale.com/1up/>

**Time:** 6:05pm

**Attendees:** Andrew Groot

**Scribe:** Andrew Groot

### Agenda:

1. To document and inform the team of software development decisions and basic component interface.

### Results:

1. The design is object oriented, consisting of the following core components:
  1. Parser
    1. Handles file input, parsing, and initial transformations of raw input into the Line data structures.
    2. The estimated coding difficulty of this object was suggested to be easy.
  2. Line
    1. Core data structure, ability to store and retrieve label, opcode, and operand data.
    2. The estimated coding difficulty of this object was suggested to be moderate.
  3. Encoder
    1. Produces a Listing object from a vector of lines.
    2. The estimated coding difficulty of this object was suggested to be hard.
  4. Listing
    1. Contains the raw code data and its translation into object file data.
    2. The estimated coding difficulty of this object was suggested to be easy.
  5. Printer
    1. Outputs the listing and errors (if any). Creates the output file if there are no fatal errors.
    2. The estimated coding difficulty of this object was suggested to be moderate.

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#### 01/28 – Forum Post: Additional Software Design Progress

**Date:** Thursday, January 28th

**Location:** OneUp Forum: <http://andrewcanale.com/1up/>

**Time:** 4:39pm

**Attendees:** Andrew Groot

**Scribe:** Andrew Groot

**Agenda:**

1. To document and inform the team of further software development decisions and changes.

**Results:**

1. Changes:
    1. The Parser component will also produce an element which contains the address of the line, in addition to the line data.
    2. Encoder is now a part of Parser.
    3. Drafted main.cpp
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## 02/01 – Forum Post: Design Revisions

**Date:** Tuesday, February 1st

**Location:** OneUp Forum: <http://andrewcanale.com/1up/>

**Time:** 1:04pm

**Attendees:** Andrew Groot

**Scribe:** Andrew Groot

**Agenda:**

1. To document and inform the team of further software development decisions and changes.

**Results:**

1. Changes:
    1. Extractor will now make an initial pass over the input data to load and determine values for all labels and literals
    2. Extractor now stores both the label associated with its address, as well as literal values stored with its associated address.
    3. Proposed a command-line argument functionality for the input file
    4. Proposed a command-line flags to automatically define a set of predefined, recommended symbols (ie: HALT = trap 0x25).
    5. Proposed the idea of data structure to deal with literals.
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## 02/13 – Coding Progress Report & Advance Component Coding Progress

**Date:** Sunday, February 13th

**Location:** Science & Engineering Library: Group Study Room; The Ohio State University

**Time:** 12:00am – 3:00pm

**Attendees:** Andrew Canale, Andrew Groot

**Scribe:** Andrew Canale

**Agenda:**

1. Further explain component interaction.
2. Disseminate progress reports on component coding, User Guide, and Programmer's Guide.
3. Continue to complete component code.
4. Continue progress on User's Guide.

**Results:**

1. Groot further explained interaction between components.
  1. Main.cpp is aware of Symbol Table, Printer, and Extractor.
  2. Printer uses Symbol Table.
  3. Extractor uses Symbol Table.

2. Operation and Psuedo-Operation documentation was drafted for the User's Guide.
  3. Programmer's Guide progress was not discussed as Logan was unable to make it to the meeting.
  4. Specifications for all existing operations within the code have been written.
  5. The Extractor component was made more efficient.
  6. Completed Line and Extractor unit testing.
  7. Updated the Makefile.
  8. Wrote Skeleton-code for other components.
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#### **02/15 – Finalize Coding and Begin Unit Testing**

**Date:** Tuesday, February 15th

**Location:** Science & Engineering Library: Group Study Room; The Ohio State University

**Time:** 2:30pm – 4:30pm

**Attendees:** N/A

**Scribe:** Joshua Green

**Agenda:**

1. Complete code for all components.
2. Begin Unit Testing of all components.
3. Have a fully compiled program by close of day.
  1. Expected to have run-time errors.

**Results:**

1. Meeting was canceled due to midterms.
  2. Rescheduled meeting for Thursday.
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#### **02/17 – Finalize Coding and Begin Unit Testing (Rescheduled).**

**Date:** Thursday, February 17th

**Location:** Science & Engineering Library: 3rd Floor; The Ohio State University

**Time:** 2:30pm – 4:30pm

**Attendees:** Logan Coulson, Joshua Green, Andrew Groot

**Scribe:** Joshua Green

**Agenda:**

1. Complete code for all components.
2. Begin Unit Testing of all components.
3. Have a fully compiled program by close of day.

1. Expected to have run-time errors.

**Results:**

1. Completed code for all components except for Printer.
    1. Printer will be completed before the next meeting on Saturday.
  2. Programmer's Guide was updated to reflect documentation of all component functions.
  3. Introduction for Programmer's Guide was drafted.
  4. Test cases were drafted.
  5. Designated Saturday for testing and debugging.
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**02/19 – Compile and System Testing.**

**Date:** Saturday, February 19th

**Location:** Science & Engineering Library: Group Study Room; The Ohio State University

**Time:** 12:00pm – 4:00pm

**Attendees:** Andrew Canale, Joshua Green, Andrew Groot

**Scribe:** Joshua Green

**Agenda:**

1. Compile code and begin System Testing.
2. Draft additional test cases.
3. Fix all bugs encountered.

**Results:**

1. Debugged Printer
    1. Numerous
  2. Progressed User's Guide
    1. Completed Operation and Psuedo-Operation definitions.
    2. Troubleshooting Runtime Errors and Prompts.
  3. Drafted additional test cases.
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**02/20 – System Testing and Debugging**

**Date:** Sunday, February 20th

**Location:** Science & Engineering Library: Group Study Room; The Ohio State University

**Time:** 10:00pm – 3:00pm

**Attendees:** Andrew Canale, Joshua Green, Andrew Groot

**Scribe:** Joshua Green

**Agenda:**

1. Continue System Testing.
2. Draft additional test cases.
3. Fix all bugs encountered.

**Results:**

1. Fixed bug involving incorrect segment length calculations.
  2. Fixed involving incorrect handling of segment and symbol maximum lengths.
  3. Fixed a bug with .STRZ where a valid argument was considered invalid.
  4. Implemented bit-size checking of operation arguments. IE: Value > PG9 Offset
  5. Fixed bug involving literals causing an infinite loop.
  6. Fixed improper spacing during print.
  7. Fixed bug which ignored incorrect or missing end records.
  8. Fixed a bug where .ORIG was not correctly being required in the object file.
  9. Fixed a bug where .END records argument could be a value that was out of bounds of the object file.
  10. Fixed portability errors.
  11. Fixed a bug with .FILL which resulted in labels not being stored.
  12. Fixed a bug in Printer which printed the wrong argument for ADD and AND.
  13. Fixed a bug with .STRZ where the length of of the argument was calculated incorrectly.
  14. Fixed a bug in Extractor which caused literals to have incorrect addresses.
  15. Fixed a bug in Word which allowed values greated than 16 bits.
  16. Added integer to string file instead of using stringstream for efficiency.
  17. Finalized makefile.
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**02/21 – Final System Testing**

**Date:** Monday, February 21th

**Location:** Remote Locations via GitHub

**Time:** various

**Attendees:** N/A

**Scribe:** Joshua Green

**Agenda:**

1. Perform final System Testing
  1. Fix all unresolved errors
2. Finalize all documentation.
  1. Peer review all documentation online via forum.



**Results:**

1. Fixed an error involving symbols defined with .STRZ being stored as an absolute.
  2. Fixed the Segmentation Fault associated with segment name lengths greater than 6 characters.
  3. Documentation uploaded to server. Awaiting peer reviews.
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**02/21 - 02/23 – Final Collaboration and Collection**

**Date:** Monday-Wednesday, February 21th-23rd

**Location:** Remote Locations via GitHub and Forum <http://andrewcanale.com/1up/>

**Time:** various

**Attendees:** N/A

**Scribe:** Joshua Green

**Agenda:**

1. Swap Documentation for Peer Review
  1. Meeting Minutes by Joshua Green sent to Logan Coulson for review.
  2. Programmer's Guide by Logan Coulson sent to Andrew Canale for review.
  3. User's Guide by Andrew Canale sent to Joshua Green for review.
2. Complete Test Plan

**Results:**

1. Revisions applied by original poster and uploaded to forum for printing.
2. Test plan completed by Joshua Green and uploaded to forum.
3. Final meeting minutes entry documented.