

# COMP110 WORKSHEET E: TIS-100

Version 2.0  
BSc Computing for Games  
COMP110

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## Introduction

**TIS-100** is a puzzle game released in 2015 by independent developers Zachtronics. The gameplay consists of writing assembly code for a fictional parallel computer architecture, and as such requires skills in low-level programming.

To complete this worksheet:

- (a) **Play** TIS-100 — it is available to purchase from Steam for around £5;
- (b) **Complete** the first thirteen levels of the game, upto and including “Signal Multiplier”;
- (c) **Annotate** your solutions with descriptive comments.

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*“The Tesselated Intelligence System is a massively parallel computer architecture comprised of non-uniformly interconnected heterogeneous nodes. The Tesselated Intelligence System is ideal for applications requiring complex data stream processing, such as automated financial trading, bulk data collection, and civilian behavioural analysis.”*

— TIS-100 Reference Manual

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## Submission instructions

Begin by **forking** the GitHub repository at the following URL:

<https://github.com/Falmouth-Games-Academy/comp110-worksheet-E>

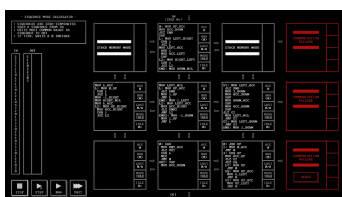
Once each level has been completed, you must add **comments** to explain your solution. TIS-100 does not give you sufficient space to do this effectively. Instead, click the “Open Save Directory” button within TIS-100 and locate the text file containing your solution. It will be named according to the “Segment” number in the level select screen, for example your solution to “Self-Test Diagnostic” will be saved as 00150.0.txt. Open the text file in your preferred text editor. Add comments to your code, prefixing your comments with the # character.

**Warning:** after adding comments, if you load your solution into TIS-100 you will see the text is truncated. If you then edit the solution in TIS-100, the truncated text will be lost! Therefore it is recommended that you do not edit your solutions after annotating them, and that you make regular backups of your work.

**Upload** your annotated solutions to your forked repository on GitHub. Attend the timetabled worksheet review session in **Week 13**, ensuring that you have uploaded all material to GitHub before this time.

## Marking criteria

Remember that **it is better to submit incomplete work than to submit nothing at all**. If you do not manage to finish all assigned levels by the deadline, upload solutions for whatever levels you have completed and you will receive a passing grade.



TIS-100 is a puzzle game in which players must write assembly code to process data streams in increasingly complex ways.

Your work will be assessed on the **number of levels** you have completed from the first thirteen. All thirteen levels must be solved to demonstrate **professional competency**, however partial credit will be awarded if some levels have been

skipped.

Your work will equally be assessed on the **quality of your comments**. Your comments should be clear, comprehensive and demonstrate a good standard of written English. Remember that comments should ideally focus on **why** rather than **what** or **how**, but use your judgement as to what is already evident from the code and what warrants explanation in comments.