Battle Report: Team #161 – "Lazer Guns Pew Pew"
8 Tips for not getting dead last

Introduction

If you began reading this report looking to find descriptions of beautiful code architecture and intense unit micromanagement strategies, you're reading the wrong report. We'll leave those details to the teams who know what they're doing. Instead, we'll provide several **practical** tips on how to ~~succeed~~ not fail at battlecode. Follow these tips and we can pretty much guarantee that you won't come in dead last.

Tip 1 – Set proper file encoding

On the importance of file encoding – Don't add Unicode ASCII art to your source code without first consulting your teammates and ensuring that everyone's environment is setup properly. Also, not everyone is in good humor when flying cats start showing up in the javadocs of the sensor class. They're even less tolerant when a bunch of gibberish throws compile errors and they can't get the code to work.

Figure 1 – What you see

Figure 2 – What your teammates see.

No one wants to see 50 errors in your source code because of some cute ascii. The default encoding of Eclipse on windows is CP1251. Make sure everyone modifies their settings to UTF-8 before you add that bad-ass picture of an angel cat of death.

Tip 2 – Don't do a complete rewrite one week before the final deadline

Don't rewrite your code from scratch 4 times in three weeks. Enough said.

Tip 3 – Write manageable code

The nature of the battlecode bytecode system does promote spaghetti code and convoluted classes, but try not to break OOP too much. Especially if it leads to 4 hours debugging an error that only arises because classes were not instantiated in the right order.
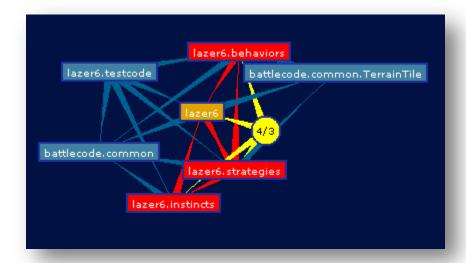

Figure 3 – our package dependency graph looks it was made by a drunken spider. Except with less structural integrity than spider web.

Tip 4 – Don't resubmit Team000.

How can you even show up to the tournament and watch such a monstrosity?

you're on your way
to victory!   **better**

team that upkeeps a single
attacking unit

team that upkeeps a single unit

team that doesn't do anything except
spawn units in random diretions

team that doesn't do anything
except upkeep betwen archons

team that doesn't do anything

team000   **worst**

Figure 4 – Hierarchy of crap players, as pioneered by Whitlow et. al.

Tip 5 –Be efficient at managing pain

RSI is real and it does happen. Take breaks at least once every two hours.   Also, don't wake up your teammates in the middle of their REM cycles. It only makes them angry. Also, the LD_{50} of caffeine in the average human is roughly 150mg/kg body mass. Try not to hit it.

Tip 6 – Write self-documenting code

MSG_KILLENEMY, MSG_ENEMYHERE, and MSG_ITSRAPINGTIME all do virtually the same thing in our code. Everyone has long since forgotten the difference between the three so we use them interchangeably. This does not help in writing good code.

Tip 7 – "Pro-bash" in order to increase your scrimmage rankings

If you are last in the ladder, people will begin submitting multiple challenges against you in order to improve their rank marginally. Fortunately, all scrimmages happen against the latest version of the bot uploaded to the server. Study your opponent's strategy and reverse noob-bash them into oblivion by writing a strategy to specifically counter theirs, and accept all their challenges simultaneously. With any luck, they'll be waking up to a scrimmage challenge page full of red.

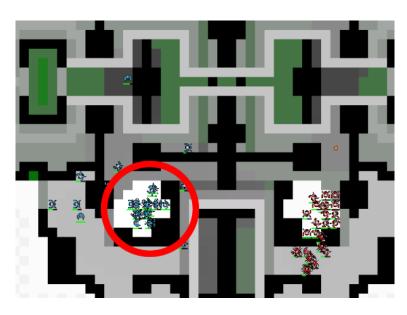## Tip 8 – Test your code before submitting

Figure 5 – Our archons fail to move the entire game against Team #8 – Deus Ex Turing Machine

Conclusion

The above eight tips should save you from tearing out your hair on the last day. Follow these tips and you won't hate your teammates / might actually want to do battlecode again next year! 🧘