Overview

When debugging AI behaviors, one of the most useful console variables is **ai_DebugDraw**.

Setting this cvar to **1** will result in debug information being drawn above the head of any active AI. In game mode, you can also press **F11** to set **ai_Debug Draw** to 1 or zero.

You can use **ai_AgentStatsDist** to set the radius within which entity debug info will be drawn.

Generally, it will look like this:

There's a lot of information here, so it's broken down below:

A) REGENERATE COVER SURFACES - This means that the cover surfaces haven't been generated. If the game that you're working on supports cover surfaces, speak to a designer about this.

B) This is the name of the Entity - The name will be **green** for vehicle AI (i.e. the actual vehicle. The driver and passenger names will be in white).

C) Pipe User Group ID.

D) These are cover/combat state indicators. The conditions are true when they're lit up **red**, false if **grey**:

Abbreviation	Description
MC	Moving to Cover
M/IC	Moving in Cover / In Cover
CC	Cover Compromised
AL	Is Alarmed

E) Current Behavior Name.

F) Current Target Name.

G) Current Target Perception:

Abbreviation	Description
VIS	Visual
MEM	Memory
SND	Sound
AGG	Aggressive
THR	Threatening
INT	Interesting

H) Current Goal Pipe Name.

I) Current Goal Op Name - If the goalop is active, it will be rendered **white**. If paused, it will be rendered **grey.**

J) Stance name and Speed.

K) Aim information and Fire mode.

More AI Debug Draw

More information on AI Debug Draw can be found here. **(OLD AI SYSTEM IN LINK, NEEDS UPDATING)**

Network AI Debug Draw

In multi-player sessions, AI is updated on the server. If it's a dedicated server, there may be a need to transmit AI debug draw data to the client to display. This is controlled by the following CVars:

CVar	Description
ai_NetworkDebug	Disable (0) or enable (1) the transmission of AI debug draw data to the client. To display transmission summary (on the client's display), use **ai_NetworkDebug 2**.
ai_NetworkDebugBytesPerSecond	Maximum transmission rate in bytes per second.
ai_NetworkDebugChannel	Network channel which the server uses to send AI debug draw data.
ai_NetworkDebugClientHost	Network address of the client.
ai_NetworkDebugMinDelay	Delay between successive transmissions.
cl_serveraddr	Server address that the client will try to connect to when the user types **connect**. Default is "localhost".