# Use of Static Objects

Nova makes extensive use of static objects to group logically related functionality that would otherwise be scattered among the many objects that represent the game universe. This is particularly noticeable in the way that Nova Console process the turn. For turn processing many stages of turn generation are handled by static objects. This prevents the game objects from being able to do activities that should only be initiated when the turn is being generated by Nova Console. This is advantageous from an information hiding point of view as many of these objects are used by both the console and the GUI.

Static objects cannot be instantiated. They do not represent things as is the norm in OOP programming. Static objects exist so long as their namespace exists. Public members of static objects can be called from any point in the program.

The following is a list of some static objects used by stars-nova:

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| --- | --- | --- | --- |
| **Object** | **Caller** | **Acts on** | **Notes** |
| IntelReader | GuiState | GuiState | Used to read the Intel file at the start of a new player turn. |
| OrderWriter | NovaGui | Order | Writes out the players orders to be passed to Nova Console. |
| OrederReader | ProcessTurn | ConsoleState | Read in the player’s Orders before processing the next year. |
| IntelWriter | ProcessTurn / NewGame | Intel | Writes out what a player knows about the game universe once a year has been processed. |
| Manufacture | ProcessTurn | ConsoleState | Processes the production queues of all stars. May produce new fleets. |
| BattleEngine | ProcessTurn | ConsoleState | Process fleet battles. |
| Bombing | ProcessTurn | ConsoleState | Process planetary bombardment. |
| Invade | ProcessTurn | ConsoleState | Process planetary invasion (meat bombing). |
| ProcessTurn | NovaConsole | ConsoleState | Process the year/turn. |