BTHAI Script Howto
Version 2.2
http://code.google.com/p/bthai/

Scripts

BTHAI 2.2 contains scripts for handling build order, which squads to use and what units to be in them, upgrades and research. The scripts are located in the *bwapi-data/AI/BTHAI-data folder*.

There are three different types of scripts placed in subfolders:

- **buildorder**. A list of the buildings to construct and in which order.
- **upgrades**. A list of upgrades and research to be upgraded.
- **squads**. Contains setup for which squads to use and the units in them.

Each script comes in a number of versions, one for each race and enemy combination, for example PvP for Protoss against Protoss and TvZ for Terran against Zerg. If for example Zerg is facing Terran and the script ZvT is missing, the general Zerg script ZvX is used instead. Same goes for Terran and Protoss. A semicolon, ;, can be used for comments in a script.

Buildorder

The buildorder script is a list of the buildings to create and in which order. The names of the buildings must be the same names as used in the UnitTypes list in bwapi, for example *Protoss Zealot*. Note that both *Protoss Zealot* and *Protoss_Zealot* works. It is not necessary to include refinery and supply buildings in the script. These are automatically added when needed.

Example of a part of a buildorder script:

```
Terran_Barracks
Terran_Supply_Depot
Terran_Barracks
Terran_Refinery
Terran_Barracks
Terran_Academy
Terran_Command_Center
Terran_Factory
```

Upgrades

The upgrades script contain both upgrades and research to be upgraded, divided in three priority groups 1, 2 and 3 where 1 is the highest priority. The names of the techs/upgrades must be the same as used in the TechTypes and UpgradeTypes lists in bwapi. Note that both *Stim Packs* and *Stim_Packs* works. Each tech/upgrade name shall be followed by a colon and a priority (1, 2 or 3). Upgrades/techs in priority 2 will not be handled until the prio 1 list is empty. Priority 3 will not be handled until prio 1 and 2 lists are empty.

Example of a part of an upgrades script:

```
U-238_Shells:1
```

```
Stim_Packs:1
Terran_Vehicle_Weapons:1
Terran_Vehicle_Weapons:2
Terran_Vehicle_Weapons:3
Cloaking_Field:1
```

Squads

The squads script contains the squads to be used and the units to be part of each squad. Each squad has a number of parameters:

Parameter	Description
Type	Type of squad. Types can be: Offense – offensive attack squad. Defensive – defense squad. Exploration – explores the game world. Rush – A squad that rushes to the enemy start location. Harass – A squad of cloaked units that attacks vulnerable enemy bases. Support – Non-attacking support squad, for example Protoss Observers. Kite – A rush squad that moves in, attacks, retreats to kite the enemy. ShuttleReaver – A Protoss Shuttle squad dropping Reavers near enemy units. ReaverBaseHarass – A Protoss Shuttle dropping Reavers in the enemy base.
Move	Move is 'Air' or 'Ground'.
Name	Name of the squad, for example 'MainAttackSquad'. The name is only used in two cases; Zerg Mutalisks and Zerg Hydralisks. If a squad with hydralisks contains 'Lurker' in the name, the hydralisks will evolve to lurkers. If a squad of mutalisks contains 'Devour' in the name, mutalisks will evolve to Devourers. Otherwise they will evolve to Guardians.
Priority	Priority of the squad, the lower the better. If a squad has priority of 1000 or above they will not be filled with units. A squad with higher priority value will not be filled until all squads with lower priority value are full.
ActivePriority	The priority the squad gets after it has been filled once. If this is set to 1000, the squad is only used once for example to rush the enemy.
OffenseType	'Optional' or 'Required'. An attack is launched at the enemy once every Required squad is filled.
Unit	The type and number of units to be in the squad, for example 'Terran_Marine:10'. Note that the names must be the same as in the UnitTypes list in bwapi. Both *Terran Marine* and *Terran_Marine* works. The unit lines must be placed between the <setup> and <end> tags, and any number of lines are allowed.

Example of a part of a squads script:

```
<start>
Type=Rush
Move=Ground
```

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```
Name=RushSquad
Priority=1
ActivePriority=1000
OffenseType=Optional
<setup>
Unit=Terran_SCV:1
<end>

<start>
Type=Offensive
Move=Ground
Name=EarlyDefenseSquad
Priority=10
ActivePriority=10
OffenseType=Required
<setup>
Unit=Terran_Marine:12
Unit=Terran_Medic:4
<end>

<start>
Type=Exploration
Move=Air
Name=AirExplorerSquad
Priority=8
ActivePriority=8
OffenseType=Optional
<setup>
Unit=Terran_Wraith:1
<end>
```