

Ground target data in eaw.exe (notes by Andy) V1.2 02.02.2004

=====

The table starts at byte offset:

0012 12CE (eaw.exe V1.2)
0011 D2D6 (eaw.exe V1.1)
0012 9AFE (eaw.exe V1.2a)

with the HEX-values:

0100 6B03 0E03 0000 0102 03FF 2616 ...

for the first target, the oil plant (target 01). byte3/4: 6B03 = 875 dec, byte5: 0E = 14 dec, byte6 = 03 and so on, as can be seen in the table below.

the table itself looks like this:

=====

```
#define FEET    *21L        //(multiplied with 21 dec)
#define MILES  *0x20000L    //(multiplied with 131072 dec = 00002000H)
```

```
TargetInfo TargetData[MAX_TARGET_TYPES] =
{ //
  // Target Type      Max    Repair  Desr Smk Armor Mdl Ppl Rnd Width  Height  Length
```


0B{TAR_ROAD_RIVER_BRIDGE, 200, 14, 25, 0, 0, 1, 2, 0,255, 30 FEET, 184 FEET, 400 FEET, 400 FEET, 75, 1, 1500 FEET, 6 MILES, 0, 0, TAR_TYPE_ANY|TAR_TYPE_BRIDGE},

0C{TAR_ROAD_COAST_BRIDGE1, 400, 14, 25, 0, 0, 1, 4, 0,255, 30 FEET, 184 FEET, 897 FEET, 897 FEET, 50, 1, 1500 FEET, 8 MILES, 0, 0, TAR_TYPE_ANY|TAR_TYPE_BRIDGE|TAR_TYPE_LONGBRIDGE},

0D{TAR_ROAD_COAST_BRIDGE2, 400, 14, 25, 0, 0, 1, 4, 0,255, 30 FEET, 184 FEET,1794 FEET,1794 FEET, 100, 1, 1500 FEET, 8 MILES, 0, 0, TAR_TYPE_ANY|TAR_TYPE_BRIDGE|TAR_TYPE_LONGBRIDGE},

0E{TAR_RAIL_RIVER_BRIDGE, 200, 21, 25, 0, 0, 1, 2, 0,255, 30 FEET, 184 FEET, 400 FEET, 400 FEET, 75, 1, 1500 FEET, 6 MILES, 0, 0, TAR_TYPE_ANY|TAR_TYPE_BRIDGE},

0F{TAR_RAIL_COAST_BRIDGE1, 400, 21, 25, 0, 0, 1, 4, 0,255, 30 FEET, 184 FEET, 897 FEET, 897 FEET, 50, 1, 1500 FEET, 8 MILES, 0, 0, TAR_TYPE_ANY|TAR_TYPE_BRIDGE|TAR_TYPE_LONGBRIDGE},

10{TAR_RAIL_COAST_BRIDGE2, 400, 21, 25, 0, 0, 1, 4, 0,255, 30 FEET, 184 FEET,1794 FEET,1794 FEET, 100, 1, 1500 FEET, 8 MILES, 0, 0, TAR_TYPE_ANY|TAR_TYPE_BRIDGE|TAR_TYPE_LONGBRIDGE},

11{TAR_HEAVY_AA, 10, 7, 25, 16, 0, 0, 2, 4,255, 10 FEET, 15 FEET, 10 FEET, 10 FEET, 25, 4, 1500 FEET, 2 MILES, 0, 0, TAR_TYPE_AAA|TAR_TYPE_HEAVY_AAA},

12{TAR_LIGHT_AA, 10, 7, 25, 16, 0, 0, 2, 4,255, 10 FEET, 8 FEET, 10 FEET, 10 FEET, 25, 4, 1500 FEET, 2 MILES, 0, 0, TAR_TYPE_AAA|TAR_TYPE_LIGHT_AAA},

13{TAR_OIL_STORAGE, 40, 14, 10, 0, 0, 0, 2, 0,255, 100 FEET, 56 FEET, 100 FEET, 100 FEET, 100, 10, 1500 FEET, 4 MILES, 0, 0, TAR_TYPE_ANY},

14{TAR_RADAR_STATION, 80, 7, 25, 16, 0, 0, 2, 10,255, 35 FEET, 22 FEET, 135 FEET, 135 FEET, 100, 4, 1500 FEET, 4 MILES, 0, 0, TAR_TYPE_ANY|TAR_TYPE_RADAR},

15{TAR_RADAR_TOWER, 100, 7, 25, 32, 0, 0, 2, 0,255, 30 FEET, 500 FEET, 30 FEET, 30 FEET, 150, 1, 1500 FEET, 6 MILES, 0, 0, TAR_TYPE_ANY|TAR_TYPE_RADAR|TAR_TYPE_DONTSET},

16{TAR_FOREST3, -1, 0, 0, 0, 0, 0, 4, 0,255,1390 FEET, 320 FEET,1510 FEET,1510 FEET, 0, 0, 1 MILES, 1 MILES, 0, 0, TAR_TYPE_NONE},

17{TAR_FORTS, 128, 35, 10, 0, 0, 20, 2, 10,255, 30 FEET, 30 FEET, 37 FEET, 37 FEET, 100, 8, 1500 FEET, 3 MILES, 0, 0, TAR_TYPE_ANY},

18{TAR_FUEL_DUMP, 15, 14, 10, 0, 0, 0, 2, 0,255, 28 FEET, 7 FEET, 37 FEET, 37 FEET, 75, 10, 1500 FEET, 3 MILES, 0, 0, TAR_TYPE_AIRFIELD},

19{TAR_AIR_CTRL_TOWER, 25, 14, 10, 0, 0, 0, 2, 5,255, 23 FEET, 35 FEET, 23 FEET, 23 FEET, 35, 1, 1500 FEET, 3 MILES, 0, 0, TAR_TYPE_AIRFIELD},

1A{TAR_ANM_BUNKER, 100, 35, 10, 0, 0, 20, 2, 0,255, 35 FEET, 10 FEET, 60 FEET, 60 FEET, 65, 10, 1500 FEET, 4 MILES, 0, 0, TAR_TYPE_AIRFIELD|
TAR_TYPE_BOMBER},

1B{TAR_HANGER, 100, 28, 10, 0, 0, 10, 2, 4,255, 170 FEET, 75 FEET, 110 FEET, 170 FEET, 100, 4, 1500 FEET, 6 MILES, 0, 0, TAR_TYPE_ANY|TAR_TYPE_AIRFIELD|
TAR_TYPE_BOMBER},

1C{TAR_BARRACK, 80, 21, 10, 0, 0, 0, 2, 4,255, 20 FEET, 20 FEET, 60 FEET, 60 FEET, 50, 1, 1500 FEET, 4 MILES, 0, 0, TAR_TYPE_NONE},

1D{TAR_HQ_BUILDING, 60, 28, 10, 0, 0, 0, 2, 5,255, 30 FEET, 25 FEET, 60 FEET, 60 FEET, 75, 1, 1500 FEET, 4 MILES, 0, 0, TAR_TYPE_NONE},

1E{TAR_O_CLUB, 60, 35, 10, 0, 0, 0, 2, 10,255, 37 FEET, 22 FEET, 37 FEET, 37 FEET, 40, 1, 1500 FEET, 4 MILES, 0, 0, TAR_TYPE_NONE},

1F{TAR_BRIEFING_ROOM, 80, 28, 10, 0, 0, 0, 2, 5,255, 35 FEET, 26 FEET, 75 FEET, 75 FEET, 50, 1, 1500 FEET, 4 MILES, 0, 0, TAR_TYPE_NONE},

20{TAR_TREE1, -1, 0, 0, 0, 0, 0, 2, 0,200, 21 FEET, 61 FEET, 20 FEET, 21 FEET, 0, 4, 1500 FEET, 1 MILES, 0, 0, TAR_TYPE_NONE|TAR_TYPE_DONTSET},

21{TAR_TREES1, -1, 0, 0, 0, 0, 0, 2, 0,230, 164 FEET, 80 FEET, 157 FEET, 164 FEET, 0, 4, 1500 FEET, 2 MILES, 0, 0, TAR_TYPE_NONE},

22{TAR_TREE2, -1, 0, 0, 0, 0, 0, 2, 0,200, 34 FEET, 42 FEET, 34 FEET, 34 FEET, 0, 4, 1500 FEET, 1 MILES, 0, 0, TAR_TYPE_NONE|TAR_TYPE_DONTSET},

23{TAR_TREES2, -1, 0, 0, 0, 0, 0, 2, 0,215, 169 FEET, 80 FEET, 217 FEET,
 217 FEET, 0, 4, 1500 FEET, 2 MILES, 0, 0, TAR_TYPE_NONE},
 24{TAR_TREE3, -1, 0, 0, 0, 0, 0, 2, 0,245, 32 FEET, 42 FEET, 32 FEET, 32
 FEET, 0, 4, 1500 FEET, 1 MILES, 0, 0, TAR_TYPE_NONE|TAR_TYPE_DONTSET},
 25{TAR_TREES3, -1, 0, 0, 0, 0, 0, 2, 0,230, 361 FEET, 80 FEET, 252 FEET,
 361 FEET, 0, 4, 1500 FEET, 2 MILES, 0, 0, TAR_TYPE_NONE},
 26{TAR_TREE4, -1, 0, 0, 0, 0, 0, 2, 0,200, 16 FEET, 44 FEET, 16 FEET, 16
 FEET, 0, 4, 1500 FEET, 1 MILES, 0, 0, TAR_TYPE_NONE|TAR_TYPE_DONTSET},
 27{TAR_TREES4, -1, 0, 0, 0, 0, 0, 2, 0,215, 215 FEET, 88 FEET, 195 FEET,
 215 FEET, 0, 4, 1500 FEET, 2 MILES, 0, 0, TAR_TYPE_NONE},
 28{TAR_FOREST1, -1, 0, 0, 0, 0, 0, 2, 0,255, 222 FEET, 96 FEET, 256 FEET,
 222 FEET, 0, 4, 1 MILES, 1 MILES, 0, 0, TAR_TYPE_NONE},

 29{TAR_WAREHOUSE, 100, 14, 10, 0, 0, 2, 2, 2,255, 75 FEET, 45 FEET, 145
 FEET, 145 FEET, 50, 4, 1500 FEET, 4 MILES, 0, 0, TAR_TYPE_ANY},
 2A{TAR_FOREST2, -1, 0, 0, 0, 0, 0, 3, 0,255, 695 FEET, 160 FEET, 755 FEET,
 695 FEET, 0, 0, 1 MILES, 1 MILES, 0, 0, TAR_TYPE_NONE},

 2B{TAR_TRAIN_ENGINE, 20, 0, 0, 0,SMK_TRAIN_SMOKE,1, 3, 0,255, 14 FEET,
 36 FEET, 58 FEET, 58 FEET, 40, 4, 1500 FEET, 3 MILES, 54 FEET, 42 FEET,
 TAR_TYPE_MGO|TAR_TYPE_TRAIN},
 2C{TAR_TRAIN_TENDER, 10, 0, 0, 0, 0, 0, 3, 2,255, 16 FEET, 32 FEET, 38
 FEET, 38 FEET, 25, 4, 1500 FEET, 3 MILES, 0, 0, TAR_TYPE_MGO|TAR_TYPE_TRAIN},
 2D{TAR_TRAIN_BOXCAR, 10, 0, 0, 0, 0, 0, 3, 0,255, 14 FEET, 32 FEET, 38
 FEET, 38 FEET, 20, 1, 1500 FEET, 3 MILES, 0, 0, TAR_TYPE_MGO|TAR_TYPE_TRAIN},
 2E{TAR_TRAIN_OIL_TANKER, 10, 0, 0, 0, 0, 0, 3, 0,255, 14 FEET, 32 FEET, 44
 FEET, 44 FEET, 50, 10, 1500 FEET, 3 MILES, 0, 0, TAR_TYPE_MGO|TAR_TYPE_TRAIN},
 2F{TAR_TRAIN_FLATBED, 10, 0, 0, 0, 0, 0, 3, 0,255, 16 FEET, 14 FEET, 64
 FEET, 64 FEET, 20, 1, 1500 FEET, 3 MILES, 0, 0, TAR_TYPE_MGO|TAR_TYPE_TRAIN},
 30{TAR_TRAIN_FLATBED_TANKS, 10, 0, 0, 0, 0, 0, 3, 0,255, 16 FEET, 38 FEET,

64 FEET, 64 FEET, 50, 1, 1500 FEET, 3 MILES, 0, 0, TAR_TYPE_MGO|TAR_TYPE_TRAIN},
 31{TAR_TRAIN_FLATBED_GUNS, 10, 0, 0, 0, 0, 0, 3, 0,255, 16 FEET, 26 FEET, 64
 FEET, 64 FEET, 35, 4, 1500 FEET, 3 MILES, 0, 0, TAR_TYPE_MGO|TAR_TYPE_TRAIN|
 TAR_TYPE_AAA|TAR_TYPE_LIGHT_AAA},

32{TAR_FUEL_TRUCK, 10, 0, 0, 0, 0, 0, 3, 0,255, 8 FEET, 22 FEET, 24 FEET,
 24 FEET, 35, 10, 1500 FEET, 3 MILES, 0, 0, TAR_TYPE_MGO|TAR_TYPE_TRUCK},

33{TAR_TRUCK, 10, 0, 0, 0, 0, 0, 3, 2,255, 8 FEET, 24 FEET, 24 FEET, 24
 FEET, 20, 4, 1500 FEET, 3 MILES, 0, 0, TAR_TYPE_MGO|TAR_TYPE_TRUCK},

34{TAR_TRUCK_COVERED, 10, 0, 0, 0, 0, 0, 3, 4,255, 8 FEET, 24 FEET, 24
 FEET, 24 FEET, 20, 4, 1500 FEET, 3 MILES, 0, 0, TAR_TYPE_MGO|TAR_TYPE_TRUCK},

35{TAR_HALFTRACK, 10, 0, 0, 0, 0, 1, 3, 8,255, 10 FEET, 18 FEET, 28 FEET,
 28 FEET, 15, 4, 1500 FEET, 3 MILES, 0, 0, TAR_TYPE_MGO|TAR_TYPE_TRUCK|
 TAR_TYPE_AAA|TAR_TYPE_SMALL_ARM},

36{TAR_JEEP, 10, 0, 0, 0, 0, 0, 3, 4,255, 8 FEET, 12 FEET, 20 FEET, 20
 FEET, 10, 4, 1500 FEET, 3 MILES, 0, 0, TAR_TYPE_MGO|TAR_TYPE_TRUCK},

37{TAR_PANTHER_TANK, 50, 0, 0, 0, 0, 4, 3, 4,255, 18 FEET, 28 FEET, 34
 FEET, 34 FEET, 40, 4, 1500 FEET, 3 MILES, 0, 0, TAR_TYPE_MGO|TAR_TYPE_ARMOR|
 TAR_TYPE_AAA|TAR_TYPE_SMALL_ARM},

38{TAR_SHERMAN_TANK, 50, 0, 0, 0, 0, 4, 3, 4,255, 14 FEET, 28 FEET, 30
 FEET, 30 FEET, 25, 4, 1500 FEET, 3 MILES, 0, 0, TAR_TYPE_MGO|TAR_TYPE_ARMOR|
 TAR_TYPE_AAA|TAR_TYPE_SMALL_ARM},

39{TAR_TRANSPORT, 200, 0, 0, 0, SMK_SHIP_SMOKE, 1, 2, 0,255, 35 FEET, 60
 FEET, 295 FEET, 295 FEET, 150, 10, 1500 FEET, 8 MILES, 35 FEET, 78 FEET,
 TAR_TYPE_MGO|TAR_TYPE_SHIP},

3A{TAR_CHURCH, 100, 0, 0, 0, 0, 0, 2, 10,200, 23 FEET, 42 FEET, 32 FEET,
 32 FEET, 0, 1, 1500 FEET, 3 MILES, 0, 0, TAR_TYPE_NONE},

3B{TAR_CITY1, 1000, 0, 0, 0, 0, 0, 2, 0,255, 356 FEET, 55 FEET, 343 FEET,
 356 FEET, 0, 1, 3000 FEET, 3 MILES, 0, 0, TAR_TYPE_NONE},

3C{TAR_CITY2, 1000, 0, 0, 0, 0, 0, 2, 0,255, 417 FEET, 75 FEET, 357 FEET,
 417 FEET, 0, 1, 3000 FEET, 3 MILES, 0, 0, TAR_TYPE_NONE},
 3D{TAR_CITY3, 1000, 0, 0, 0, 0, 0, 2, 0,255, 457 FEET, 55 FEET, 407 FEET,
 457 FEET, 0, 1, 3000 FEET, 3 MILES, 0, 0, TAR_TYPE_NONE},
 3E{TAR_CITY4, 1000, 0, 0, 0, 0, 0, 2, 0,255, 302 FEET, 55 FEET, 356 FEET,
 356 FEET, 0, 1, 3000 FEET, 3 MILES, 0, 0, TAR_TYPE_NONE},
 3F{TAR_CATHEDRAL, 200, 0, 0, 0, 0, 1, 2, 0,185, 122 FEET, 200 FEET, 152
 FEET, 152 FEET, 0, 1, 1500 FEET, 4 MILES, 0, 0, TAR_TYPE_NONE},
 40{TAR_FARM, 200, 0, 0, 0, 0, 0, 2, 2,215, 250 FEET, 10 FEET, 210 FEET,
 250 FEET, 0, 1, 3000 FEET, 4 MILES, 0, 0, TAR_TYPE_NONE},
 41{TAR_CASTLE, 400, 0, 0, 0, 0, 20, 2, 0, 64, 100 FEET, 68 FEET, 100 FEET,
 100 FEET, 0, 1, 1500 FEET, 4 MILES, 0, 0, TAR_TYPE_NONE},
 42{TAR_CHATEAU, 100, 0, 0, 0, 0, 0, 2, 5,200, 62 FEET, 49 FEET, 44 FEET,
 62 FEET, 0, 1, 1500 FEET, 3 MILES, 0, 0, TAR_TYPE_NONE},
 43{TAR_WINDMILL, 10, 0, 0, 0, 0, 0, 2, 1,255, 15 FEET, 48 FEET, 15 FEET,
 15 FEET, 0, 1, 1500 FEET, 2 MILES, 0, 0, TAR_TYPE_NONE},
 44{TAR_HOUSE, 1, 0, 0, 0, 0, 0, 2, 5,200, 20 FEET, 38 FEET, 27 FEET, 27
 FEET, 0, 0, 1500 FEET, 2 MILES, 0, 0, TAR_TYPE_NONE},

 45{TAR_PARACHUTIST, 1, 0, 0, 0, 0, 0, 2, 0, 0, 0 FEET, 0 FEET, 0 FEET, 0
 FEET, 0, 0, 1500 FEET, 1 MILES, 0, 0, TAR_TYPE_NONE},
 46{TAR_PEOPLE_MILLING, -1, 0, 0, 0, 0, 0, 0, 0,255, 0 FEET, 0 FEET, 0
 FEET, 0 FEET, 0, 0, 3000 FEET, 3000 FEET, 0, 0, TAR_TYPE_NONE},
 47{TAR_PEOPLE_MARCHING, -1, 0, 0, 0, 0, 0, 0, 0,255, 0 FEET, 0 FEET, 0
 FEET, 0 FEET, 0, 0, 3000 FEET, 3000 FEET, 0, 0, TAR_TYPE_NONE},

 48{TAR_DESTROYER, 150, 0, 0, 0,SMK_SHIP_SMOKE,4, 2, 0,255, 35 FEET, 60
 FEET, 295 FEET, 295 FEET, 150, 12, 1500 FEET, 8 MILES, 35 FEET, 78 FEET,
 TAR_TYPE_MGO|TAR_TYPE_SHIP|TAR_TYPE_AAA|TAR_TYPE_MED_AAA},
 49{TAR_DESTROYER_TURRET, -1, 0, 0, 0, 0, 0, 0, 0,255, 0 FEET, 0 FEET, 0

```
FEET, 0 FEET, 0, 0, 0, 0, 0, 0, TAR_TYPE_MGO|TAR_TYPE_TURRET|
TAR_TYPE_AAA|TAR_TYPE_LIGHT_AAA},
};
```

```
typedef struct _TargetInfo
```

```
{
```

```
    UWORD TypeNum;
```

```
    short MaxDamage;
```

```
    UBYTE RepairTime;           // repair time for destroyed
```

```
    UBYTE RepairRate;          // repair rate
```

```
    UBYTE DestructionMod;      // used in campaign engine, how difficult it is to destroy the
```

```
target
```

```
    UBYTE Smoke;               // 0 no smoke, 1 smoke
```

```
    UBYTE Armor;               // Armor Rating 0 = No Armor
```

```
    UBYTE ModelType;           // 0 = no model, 1 = plane sized object, 2 = ground sized object,
```

```
NOTE: these are the two scales found by Anthony, they work as a multiplication factor
```

```
    UBYTE PeopleCount;         // number of people to spawn (around are), then
```

```
    UBYTE RandomChance;        // on destruction spawns more if non-zero and building
```

```
    UWORD Width;
```

```
    UWORD Height;
```

```
    UWORD Length;
```

```
    UWORD Radius;
```

```
    UBYTE Score;
```

```
    UBYTE ExplosionSize;
```

```
    long DetailDist;
```

long MaxVisDist;

short SmokeOffsetX;

short SmokeOffsetZ;

ULONG TargetType;

UWORD LowModel;

UWORD HiModel;

UWORD DestroyedModel;

UWORD ShadowModel;

} TargetInfo;

```
#define TAR_ANY 0
#define TAR_OIL_PLANT 1
#define TAR_BALL_PLANT 2
#define TAR_CHEM_PLANT 3
#define TAR_AIRCRAFT 4
#define TAR_AIRFIELD 5
#define TAR_ARMAMENTS 6
#define TAR_RAILYARD 7
#define TAR_SHIPPING 8
#define TAR_UBOAT 9
#define TAR_V1SITE 10
#define TAR_ROAD_RIVER_BRIDGE 11
#define TAR_ROAD_COAST_BRIDGE1 12
#define TAR_ROAD_COAST_BRIDGE2 13
#define TAR_RAIL_RIVER_BRIDGE 14
#define TAR_RAIL_COAST_BRIDGE1 15
```

```
#define TAR_RAIL_COAST_BRIDGE2  16
#define TAR_HEAVY_AA            17
#define TAR_LIGHT_AA           18
#define TAR_OIL_STORAGE        19
#define TAR_RADAR_STATION      20
#define TAR_RADAR_TOWER        21
#define TAR_FOREST3            22
#define TAR_FORTS              23
#define TAR_FUEL_DUMP          24
#define TAR_AIR_CTRL_TOWER     25
#define TAR_ANM_BUNKER         26
#define TAR_HANGER             27
#define TAR_BARRACK            28
#define TAR_HQ_BUILDING        29
#define TAR_O_CLUB             30
#define TAR_BRIEFING_ROOM      31
#define TAR_TREE1              32
#define TAR_TREES1             33
#define TAR_TREE2              34
#define TAR_TREES2            35
#define TAR_TREE3              36
#define TAR_TREES3            37
#define TAR_TREE4              38
#define TAR_TREES4            39
#define TAR_FOREST1           40
#define TAR_WAREHOUSE          41
#define TAR_FOREST2           42
#define TAR_TRAIN_ENGINE       43
#define TAR_TRAIN_TENDER       44
#define TAR_TRAIN_BOXCAR       45
```

```
#define TAR_TRAIN_OIL_TANKER    46
#define TAR_TRAIN_FLATBED      47
#define TAR_TRAIN_FLATBED_TANKS 48
#define TAR_TRAIN_FLATBED_GUNS 49
#define TAR_FUEL_TRUCK         50  }
#define TAR_TRUCK              51  }
#define TAR_TRUCK_COVERED      52  }
#define TAR_HALFTRACK          53  } placing any of these in EAW_TTD.DAT makes a complete
convoy appear moving into the direction given
#define TAR_JEEP               54  }
#define TAR_PANTHER_TANK       55  }
#define TAR_SHERMAN_TANK       56  }
#define TAR_TRANSPORT          57
#define TAR_CHURCH             58
#define TAR_CITY1              59
#define TAR_CITY2              60
#define TAR_CITY3              61
#define TAR_CITY4              62
#define TAR_CATHEDRAL          63
#define TAR_FARM               64
#define TAR_CASTLE             65
#define TAR_CHATEAU            66
#define TAR_WINDMILL           67
#define TAR_HOUSE              68
#define TAR_PARACHUTIST        69
#define TAR_PEOPLE_MILLING     70  // Fake Targets for spawning people, can only be placed in
EAW_TTD.DAT
#define TAR_PEOPLE_MARCHING    71

#define TAR_DESTROYER          72
```

```
#define TAR_DESTROYER_TURRET    73

#define TAR_BRIDGE                0x001e    // will select any bridge, Note: not tested
#define TAR_NONE                  0xFF
#define TAR_LONDON                0xEF      // special flag for BoB campaign
#define TAR_CONVOY                0xEE
#define TAR_ARMOR                 0xED
#define TAR_TRUCKS                0xEC
#define TAR_V1_INTERCEPT        0xEB
#define TAR_SCRAMBLE              0xEA
#define TAR_CONTINENTAL_BASE      0xE9
```

These unusual target definitions can be used in the campaign files (campaign phases, special missions)

=====
The Hitbubbles
=====

The hitbubbles of the groundobjects can easily be calculated. As Anthony found out one 3dz point matches

0,14708723 feet.

That means you can load any groundobject 3dz with 3dz Studio and multiply the 3dz values with the factor mentioned above. Further more you have to multiply the result with the factor called 'Mdl' (ModelType) in the table above and then you still have to multiply it with 21.

Example:

You have a house extending in all tree directions like this:

x	y	z
-50 to +50	-200 to +200	150

this matches:

length	width	height
100 points	400 points	150 points
14.7 feet	58.8 feet	22.1 feet

with model type 2 used you get:

29.4 feet	117.7 feet	44.1 feet
-----------	------------	-----------

multiplied with 21:

618	2471	927
6A02 hex	A709 hex	9F03

In the end the hitbubble bytes in the exe would have to look like this:

... A709 9F03 6A02 A709 ...

Pay attention to the order of these values (y, z, x). The last number is the overall radius of the hitbubble. Always use the biggest of the x- and y-values.

=====
TAR-TYPE definitions
=====

there are a lot of different taget type definitions and combinations of them, but there is a pattern: The tar types are coded as long, that means they consist of 4 bytes. Since it's difficult to explain I'll simply list all types and combinations that appear in the exe file and you will see how the combinations work. I added some examples that do not appear in the exe for better understanding. In the text above the variables are called TAR_TYPE_XXXX (e.g. TAR_TYPE_NONE). To make things easier to read I'll leave the 'TAR-TYPE' string and write '_NONE' only. OK, let's start:

TAR_TYPE	definition	note
----------	------------	------

usual targets

=====

_NONE	0000 0000	not targetable
_ANY	0100 0000	targetable
_BRIDGE	0300 0000	seems not to work as target!
_AIRFIELD	0800 0000	

combinations:

_AIRFIELD _BOMBER	0C00 0000	_BOMBER target can only be destroyed by bombs
_ANY _BOMBER	0500 0000	_BOMBER seems to add 04 to the first byte
_ANY _AIRFIELD _BOMBER	0D00 0000	01 (any)+08 (airf.)+04 (bomber)=0D
_BRIDGE _LONGBRIDGE	4300 0000	don't ask me for the meaning, not targetable
_NONE _DONTSET	8000 0000	_DONTSET appears for trees and radar towers (see below)
_ANY _RADAR	0101 0000	
_ANY _RADAR _DONTSET	8101 0000	appears for radar towers

AA targets

=====

_AAA _LIGHT_AAA	2000 0001	byte1 set to 20 means AA, byte4 sets the caliber
_AAA _MED_AAA	2000 0002	not used in game in this combination! only in connection with ships
_AAA _HEAVY_AAA	2000 0004	
_AAA _SMALL_ARM	2000 0008	not used in game in this combination! only in connection with tanks

Moving ground ojects (MGO)

=====

_MGO _SHIP	1000 0100	byte1 set to 10 means MGO, byte3 sets type
_MGO _ARMOR	1000 0200	not used in game in this combination cause tanks always have AA capability

_MGO _TRAIN	1000 0400	
_MGO _TRUCK	1000 0800	
_MGO _TURRET	1000 1000	not used in game in this combination! see below

combinations:

_MGO|_SHIP|_AAA|_MED_AAA 3000 0102 byte1: 20 (AA)+10 (MGO)=30, byte3=01 (ship),
byte4=02 caliber of AA (Medium)

_MGO|_ARMOR|_AAA|_SMALL_ARM 3000 0208

_MGO|_TRAIN|_AAA|_LIGHT_AAA 3000 0401

_MGO|_TRUCK|_AAA|_SMALL_ARM 3000 0808

_MGO|_TURRET|_AAA|_LIGHT_AAA 3000 1001 Very important! this could be used as
'invisible' Flak, it is only used by the Destroyers, but is a additional taget type that is unknown so far.

Note: I tried to place this target type somewhere, but didn't get any results:
nothing to been seen and nothing happens... :(

As I found out recently _DONTSET means this target type is always set on the EAW world. You have to know EAW randomly selects the objects that are displayed at any of the terrain tiles to make the landscape more varying. By making one groundobject '_DONTSET' you can force EAW to always display it.

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Conclusions:
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We can now change all characteristics of all groundtargets. :o) But all major changes have to go hand in hand with tardata.dat- (that means EAW-World-) editing.

This way we could substitute any target for another, even create completely new ones as moving AA or additional tanks, parked aircraft or anything we want.

Maybe the bridges could be simply made targetable by changing their type to `_ANY|_BOMBER`.

So, happy HEX-editing. :o)

Greetings,
Andy.