

Importing Point Features

An important new feature in Stealth 6.2 and in the new VR-Forces 3D Front End, is the ability to import point feature data into the Stealth and represent the features with OpenFlight models. *MÄK Stealth User's Guide* (and *VR-Forces 3D Front End User's Guide*) explains the mechanics of importing point features. *MÄK Terrain Database Tool User's Guide* explains how to add the point features provided with the TDB Tool to a GDB database. However the existing documentation assumes that you are just using the point features provided with the TDB Tool and the models supplied with the Stealth. This document explains how to configure the TDB Tool to allow insertion of additional point feature types into GDB files and how to configure the Stealth to display point models for point features that are not provided with the Stealth.



For simplicity, for the rest of this document we will just refer to the Stealth, but all details apply equally to the VR-Forces 3D Front End.

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Configuring the TDB Tool to Add New Point Feature Types

When you add a point feature to a GDB database in the TDB Tool, the Add Point Feature dialog box provided a fixed list of features that you can add. There is no option in the dialog box to specify other point feature types. However, the list in the dialog box is drawn from a configuration file, which you can edit to add additional point feature types.

Point feature types are configured in *stealth6.2\tools\tdbTool\data\importDfad\pointFeatures.txt* (*orforces3.11\data\importDfad\pointFeatures.txt*). Each feature is configured in one comma-delimited line, similar to the following:

```
Power Transmission Pylon/Pole,172,US-Power Transmission Pylon UK-Power  
Transmission Pylon/Pole,MAK050,Power,AT040,  
US-Power Transmission Pylon UK-Power Transmission Pylon/Pole,  
Tower_Powertransmission,1,Length,25.5,Width,10.5,Height,43,Orientation,  
0,SMC064,Metal,DtModelFile,..data\models\makFeatures\  
Tower_Powertransmission\Tower_Powertransmission.flt
```

[Table 1](#) defines the fields in a point feature entry. They configure the Add Point Feature dialog box and the fields in the Properties dialog box for point features.

Values must be entered in the order specified. Specification of an icon is not required. Blank fields must be preserved using successive commas (,). Icon images for the Add Point Feature dialog box are in *.\data\images\symbols\images_perspective*.

Table 1: Point feature configuration

Field Definition	Example
Feature name in Add Point Feature dialog box	Power Transmission Pylon/Pole
FID code	172
DFAD Code	US-Power Transmission Pylon UK-Power Transmission Pylon/Pole
Feature Group	MAK050
Feature Group Name	Power
ECC code	AT040
Feature Name	US-Power Transmission Pylon UK-Power Transmission Pylon/Pole
Image used for the icon in the feature drop-down list in the Add Point Feature dialog box.	Tower_Powertransmision
SMC code	1
Length label	Length
Length value	25.5
Width label	Width
Width value	10.5
Height label	Height
Height value	43
Orientation label	Orientation
Orientation value	0
SMC code label	SMC064
SMC value	Metal
Model file label	DtModelFile
OpenFlight file pathname	..\data\models\makFeatures\Tower_Powertransmision\ Tower_Powertransmision.flt

Adding Model Information to Point Features in Shapefiles

You can import point features into the Stealth from shapefiles. If you want these point features to be represented by models in the Stealth, you can add a `DtModelFile` attribute and specify a model for each feature that you want to display in the Stealth. If the model is available, the Stealth will display it. To specify a model in the `DtModelFile` attribute, use any of the commercially available applications that allow you to edit shapefiles.

Configuring the Stealth to Display Point Features

If you import a point feature that was added to a terrain database using the TDB Tool, or which is in a shape file and has the `DtModelFile` attribute specified, you do not have to do any additional configuration in the Stealth, because the information needed to identify the feature is in the database. (Of course, this assumes that the models specified in the point features attribute are installed in the Stealth.) However if you import point features from some other source, you can still display models for them.

The Stealth can map models to point features based on their feature ID (FID). Features are mapped to FIDs in the *featureMap.mtl* configuration file. The following is an excerpt from *featureMap.mtl*:

```
;; Path Definitions:

(setq Feature-Path-1 "..\data\models\makFeatures\Bridge_Arch_Stone")
(setq Feature-Path-10
  "..\data\models\makFeatures\tower_Powertransmission")
(setq Feature-Path-11 "..\data\models\makFeatures\tower_Communications")
(setq Feature-Path-12 "..\data\models\makFeatures\tower_Water_Steel")

;; Feature Id Mappings:

(feature-map 138 (list Feature-Path-1 "Bridge_Arch_Stone.flt"))
(feature-map 75 (list Feature-Path-2 "Building_Barracks_Metal.flt"))
(feature-map 172 (list Feature-Path-10 "Tower_Powertransmission.flt"))
(feature-map 178 (list Feature-Path-11 "Tower_Communications.flt"))
```

The file defines `Feature-Path` variables for the directories in which point feature models are located. Then it maps FIDs to specific model files. When you import feature data, if the feature's attributes do not specify a model file (as the ones added using the TDB Tool do), the Stealth checks the FID attribute of the feature. If that FID is mapped to a model in *featureMap.mtl*, the Stealth displays that model for the feature. If there is no mapping, the point feature is not displayed.