



## Fugawi Tracker 4

### TECHNICAL INTERFACES DOCUMENTATION

## DLL External Communication

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### Fugawi Tracker 4 - DLL Interface

Fugawi Tracker 4 has the ability to communicate with an external DLL. This permits developers to receive positional information from Tracker and to request the plotting of a position within Tracker.

The DLL must have the following features:

- I. The name is arbitrary, but it should be placed in the following folder:

C:\Program Files\Fugawi\Bin\Plugins

The developer is responsible for creating this folder.

- II. The DLL should export 4 functions with the following interface:

1. FugPlugInStart

FTracker will run it at the beginning. This function can create the user's own objects, allocate memory for the user's use, etc.

Delphi Interface:

Procedure FugPlugInStart; cdecl;

C-interface:

Void \_\_ cdecl FugPlugInStart (void);

2. FugPlugInFinish

FTracker will run this function at the end. This function can destroy all objects that the user created in FugPlugInStart, deallocate memory, etc.

Delphi Interface:

Procedure FugPlugInFinish; cdecl;

C-interface:

Void \_\_ cdecl FugPlugInFinish (void);

3. FugPlugInInfo

If FTracker finds a user's DLL in Plugins folder, Ftracker loads the DLL dynamically and before any other action, runs this function to obtain the user's identification. Therefore, this function must return the following data:

Delphi notation:

```
TfugPlugInInfoStruct=record
  ID: DWORD;
  Version: TFugPlugInVersion;
end;
where
TFugPlugInVersion=record
  Number: Word;
  Reserv: Word;
End;
```

C-notation:

```
typedef struct {
  unsigned short Number; //2 bytes
  unsigned short reserv; //2 bytes
} TFugPlugInVersion;
typedef struct {
  unsigned long ID; //4 bytes
  TFugPlugInVersion Version;
} TFugPlugInInfo struct;
```

For the contents of ID and version data, the user must consult Fugawi customer service.

Delphi interface for this function:

```
Function FugPlugInInfo: TFugPlugInInfo; cdecl;
```

C-interface:

```
TFugPlugInInfostruct __ cdecl FugPlugInInfo (void);
```

4. FugPlugInLookUp

This function receives pointers to latitude and longitude and can return boolean. This function can be used to pass a position to the user's application. The user's application can then link the location to external sources, such as a database and display the additional information in the user's window. If the result is true and input values of latitude and/or longitude are changed by the user, FTracker will center the underlying map at the returned latitude and longitude.

This function will be fired on two occasions:

- a) FTracker Track Tabsheet is active and in the Events grid one event is selected and the user pushes "External Function" button (which will be enabled in this case).

- b) If the underlying map is in “Find/Query Mode” and the user right clicks on a location on the map, the user can choose “Query Position” from the popup menu.

Delphi Interface for this function:

Function FugPlugInLookUp (var Lat:double; var Lon:double):boolean; cdecl;

C-interface:

bool \_\_ cdecl FugPlugInLookUp (double\*Lat,double\*Lon);