

FalCon Control Points, Marker Defaults and 6D Objects FAQ

Control Points File *.apt (= ASCII Point Table)

```

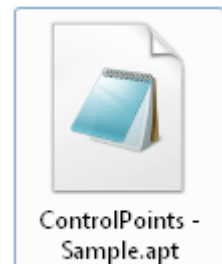
+++++
:-> FalCon-eXtra-ASCII
+++++
Version:          10.00.0000 D (FalCon eXtra)
Datum:           2018-07-01 12:00:00

=====
MyComment
=====

+++++
:-> Control-Points [mm] X,Y,Z
+++++
537.284182      3.886392      -13.957619     P_FrontCenter  DOT          SysFloor
408.617236     -258.051487    -12.685728     P_FrontLeft    CODE #44     SysFloor
410.839827     267.878508     -13.046163     C_8            CODE         SysFloor
-550.148163     8.468559      -12.463902     P_BackCenter   DOT          SysFloor
-421.774657    -259.718995   -11.850024     P_BackLeft     CODE #69     SysFloor
-420.228544    269.360851    -12.616210     P_BackRight    CODE #131    SysFloor
-520.228544    269.360851    -12.616210     P_BackVirtual  VIRT         SysFloor
-7.376370     -344.114504   -12.593095     P_MiddleLeft   MXT-5
-4.827725     352.806269    -13.678935     P_MiddleRight  MXT-5
-93.245793     418.792723    25.555290      P_H1           DOT          SysHead @View-Left
422.263312     0.372571      65.871295      P_H2           DOT          SysHead @View-Left
97.621622     -385.794713   106.491528     P_H3           DOT          SysHead @View-Left

      X              Y              Z      Name      Type #No  Coo.sys. @View

```



Hints for Import:

- ":-> FalCon-eXtra-ASCII": keyword is mandatory.
- "Version:": number can show any value, but note important language: "D" for German (Deutsch) or "E" for English.
- "Date:" is only comment. Further comments can be added.
- ":-> Control-Points": keyword is mandatory, a unit = "[mm]" (default) or "[m]"
- "X,Y,Z coordinates + marker name + marker type": table with one line per marker
- Define here the coordinates of virtual markers (type "VIRT").
- Special case: The code number of CODE markers is given either by the marker name, e.g. "C_8" or by an additional tag "#8".
- The coordinate system of the control points is – if not specified – "Standard" or it can be added (without blanks) as line appendix "coordinate_system".
- Additionally a text flag (without blanks) can be added, which allows during setup of markers to assign a marker to a view or to a group: "@View". The assignment to a stereo camera pair supports also wildcards, e.g. „@Left*" for the views „Left-A“ and „Left-B“.

optional:

```

+++++
:-> Marken-Names
+++++
P_H1          SIHEAD0000H1  DOT
P_H2          SIHEAD0000H2  DOT
P_H3          SIHEAD0000H3  DOT
P_MiddleRight ----          MXT-5
Scale_A       ----          MXT-5  @MyScale
Scale_B       ----          MXT-5  @MyScale

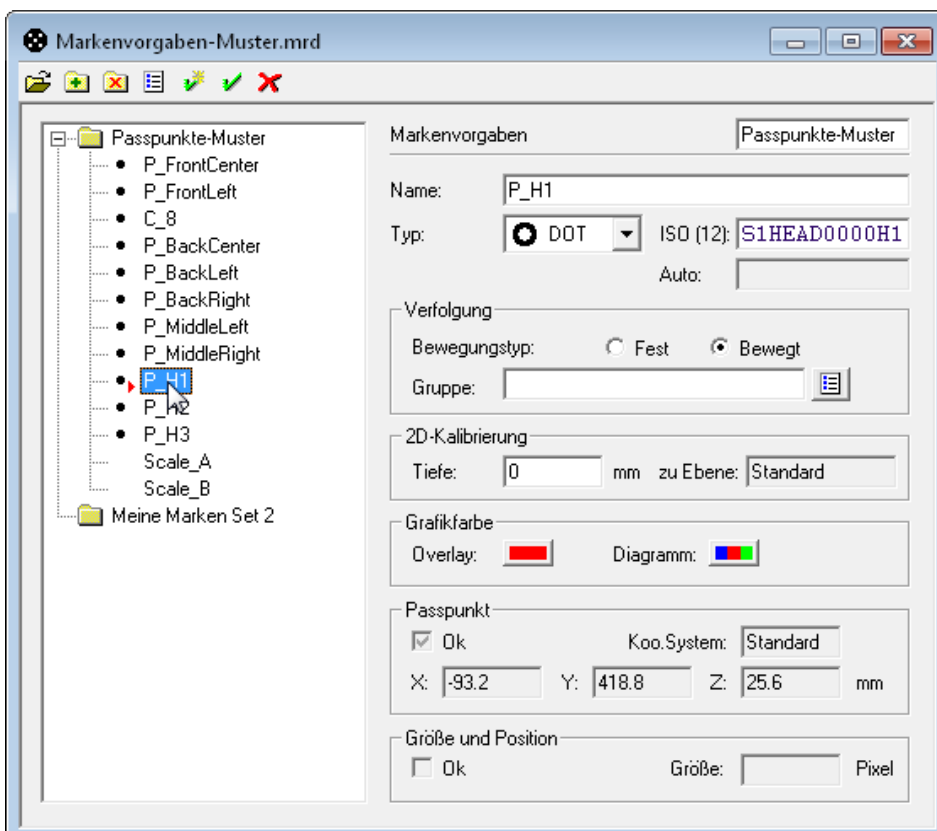
Name          ISO-Name      Typ      @View

```

- Keyword ":-> Marker-Names".
- "Marker name + ISO base name (12 digits) + marker type": table with one line per marker.
- Optional text flag: "@View".

Marker Defaults File *.mrd

- Add further basic settings.
- Manage several sets of markers.
- Apply during analysis via drag & drop into Defaults tab.



6D Objects

- A 6D object is a virtual rigid body.
- It is defined by ≥ 4 reference markers with control point information.
- Read an ASCII file *.apt with the key „:-> 6D-Objects“ in the tab „Defaults“.
- Only the names of the reference markers are assigned to each object.
The control point information, especially the 3D coordinates, have to be listed separately under the key "Control-Points".
- After successful setup of a reference marker, the corresponding 6D object will be inserted automatically into the current analysis = indirect setup of the 6D objects without explicit "Create New".

```

+++++
:-> 6D-Objects
+++++
@6DObject: FMH
  (:-
MDot
M461
M469
M470
M471
M480
:-)
Name

```

and

```

+++++
:-> Control-Points [mm]
+++++
-318.0944   -40.1962   -33.8784   MDot        DOT
-350.9960   -32.4422   -76.6697   M461        CODE #461
-273.1827   -41.3265    7.8948    M469        CODE #469
-314.6303   -31.1325   47.0771   M470        CODE #470
-357.6295   -34.5631   -32.1269   M471        CODE #471
-316.4596   -41.6345    7.4337    M480        CODE #480

```

X	Y	Z	Name	Type	#No
-318.0944	-40.1962	-33.8784	MDot	DOT	
-350.9960	-32.4422	-76.6697	M461	CODE	#461
-273.1827	-41.3265	7.8948	M469	CODE	#469
-314.6303	-31.1325	47.0771	M470	CODE	#470
-357.6295	-34.5631	-32.1269	M471	CODE	#471
-316.4596	-41.6345	7.4337	M480	CODE	#480