# PathGenerator Output file Specification

#### 1.0 Path File Definition

This file is for Storing the Generated Path Data from the PathGenerator tool.

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### 1.0.1 Short Description of the PathGenerator File.

The PathGenerator File holds the generated data created by the PathGenerator tool. This File holds waypoints starting from numerical 0 to the signed 32 bit integer limit. The waypoints Consist of the Generated Data Id, Pos, Vel, Acc, Jerk, Heading, Dt, X, Y and User Comments. Each waypoint is read in order according to the value of the Id integer. Then After the WayPoint is Read in by the Id integer, the Rest of that Specific Waypoint is loaded Into an Array which in turn is read by the End user's Program.

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## 1.1 Description of the Data

#### This file includes the following Data:

```
Id: An Int For Numbering Waypoints Units: NA

Pos: An Double for Defining the Encoder Pos of Waypoint Units: Encoder Ticks

Vel: An Double for Controlling Speed of Robot Units: Unknown

Acc: An Double for Controlling The Acceleration of the Robot Units: Unknown

Jerk: An Double for accounting for Minor Movements in Robot Motion / unknown purpose Units: Unknown

Heading: An Double for a Unknown Use. Units Unknown

Dt: An Double used for setting the period of your loop. Units Mills/Unknown

X: An Double used for setting UNknown Units: Unknown

Y: An Double Used For Unknown Units: Unknown

UserComment: An String For user to Write a 255 Char Limited Message
```

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#### 1.2 Data Structure

#### This is the Example of the Data Structure of

```
[UserComment]
[Waypoint ID]
[Pos]
[Vel]
[Acc]
[Jerk]
[Heading]
[Dt]
[X]
```

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## 1.2.1 Data Structure Continued

The Data Structure of this file uses a top - down approach. This means that the Path Data file reads, linearly Starting With the User Comment and ending with the Y value of the Waypoint. Refer to figure 1.2 Data Structure for the file layout. The Liner Layout of the DataStructure makes it easy to comply with human readable format standard.