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Motion Planner Output Attributes

These are the motion planner output attributes associated with a Motion Control Axis.

Planner Command Position - Integer

Usage	Access	Data Type	Default	Min	Max	Semantics of Values
Required - FPV	Get/ GSV	DINT	-	-	-	Planner Counts

This attribute value is the integer component of Motion Planner generated command position in planner counts. The command position data type is represented internally as a 64-bit floating point value that Motion Task restricts to a signed 32-bit integer range. The resulting range restricted Double Floating point value can therefore be expressed as two 32-bit attributes to preserve precision. This is accomplished by representing the command position (compos) as $x + y$, where x is the signed integer component (this attribute) and y is the signed floating point fractional component. x and y are defined using the following equations:

$$x = (\text{int})\text{compos}$$

$$y = (\text{float})(\text{compos} - x)$$

Planner Command Position - Fractional

Usage	Access	Data Type	Default	Min	Max	Semantics of Values
Required - FPV	Get/ GSV	REAL	-	-	-	Planner Counts

This attribute value is the fractional component of Motion Planner generated command position in planner counts. Representing the command position (compos) $x + y$, where x is the signed integer component and y is the signed floating point fractional component (this attribute). x and y are defined using the following equations:

$$x = (\text{int})\text{compos}$$

$$y = (\text{float})(\text{compos} - x).$$

Planner Actual Position

Usage	Access	Data Type	Default	Min	Max	Semantics of Values
Required - ED	Get/ GSV	DINT	-	-	-	Planner Counts

This attribute value is the Motion Planner generated actual position in planner counts. The internal 64-bit signed integer representation of actual position is range limited by Motion Task to a signed 32-bit integer.

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