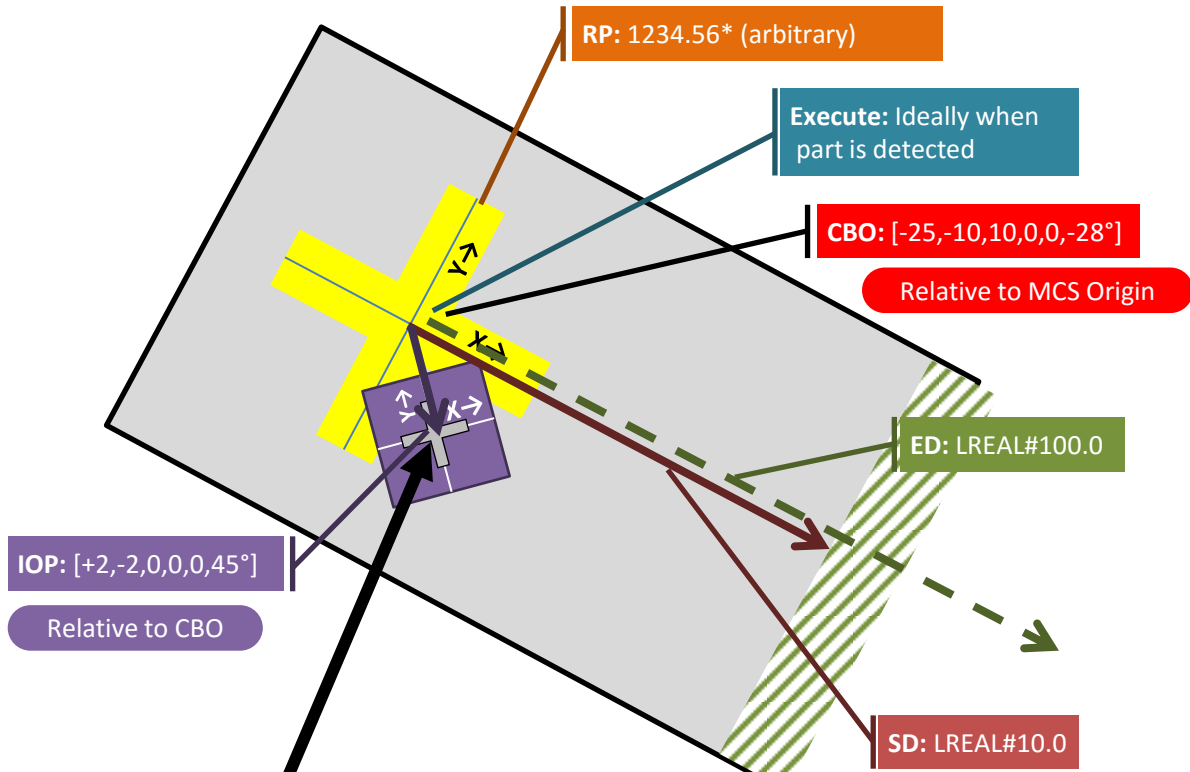
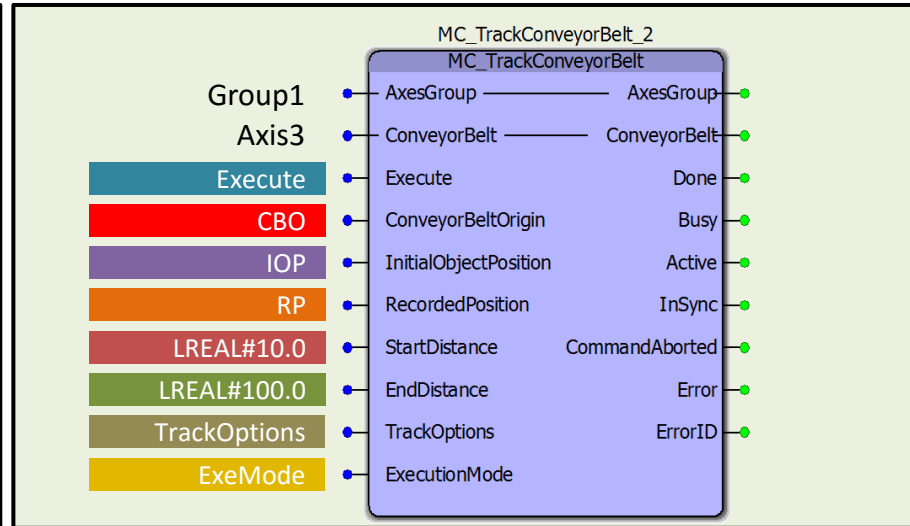
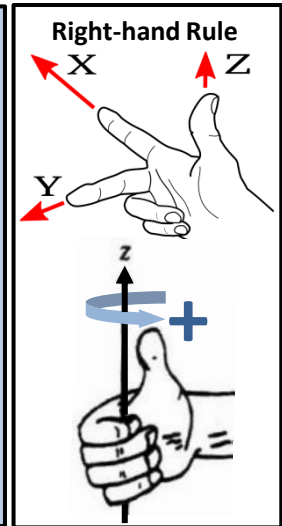


MC_TrackConveyorBelt Quick Reference



This is the origin of the Part Coordinate System (PCS)
PCS move to [0,0,0,0,0,0] to pick this part

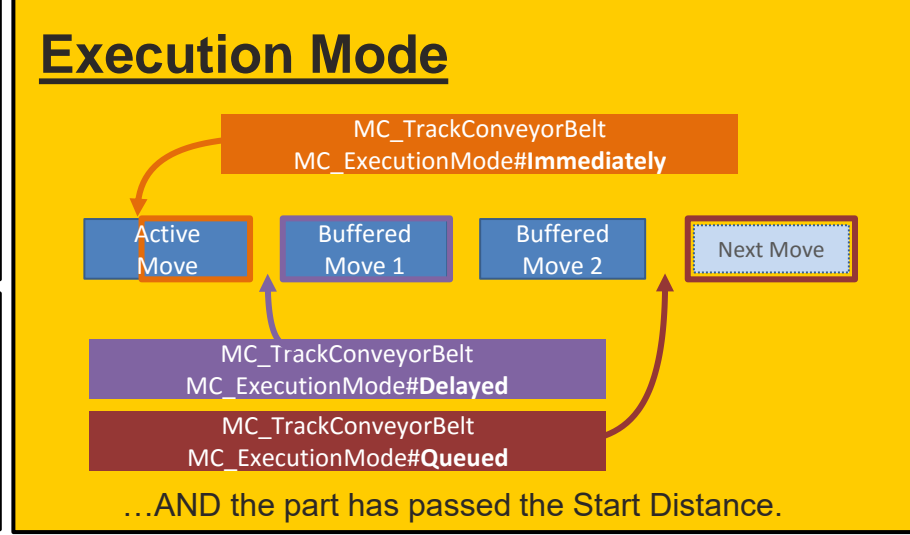
- + MCS Origin
- + Conveyor Belt Origin (CBO)
 - Defined relative to MCS Origin
 - Conveyor travel is +X direction
- + PCS Origin
 - Defined by the IOP (Initial Object Position) relative to Conveyor Belt Origin
 - Moves with the conveyor belt when tracking is active (in the +X direction of the belt)
 - Position relative to MCS origin is found in Group.Part.Offset
- + Part to be picked
- + Tool Center Point (reference)



- ### Tracking Errors
- 8960 – Invalid axes group
 - 8999 – Coordinate Frame in Motion
 - 9005 – Invalid TrackProfileMode
 - 9006 – Invalid TrackProfile parameter
 - 9007 – Deferred ExecutionMode error
 - 9011 – Conveyor position past allowable range during SyncIn
 - 9012 – Conveyor tracking reuse prohibited
 - 9013 – Invalid Frame
 - 9014 – ConveyorReverseTransition
 - 9015 – ConveyorPastDelayLimit
 - 9220 – Group not enabled
 - 9227 – The Conveyor Position past SyncIn zone before tracking is active.

- ### Prm2251=TrackState
- 0=Not Tracking
 - 1= Waiting to Track
 - 2= Transition into Tracking
 - 3= Tracking
 - 4= Transition out of Tracking

- ### Canceling Tracking
- MC_GroupStop
 - MCS move becomes active
 - Another MC_TrackConveyorBelt block becomes active
 - Y_GroupSetFrameOffset changes PCS definition



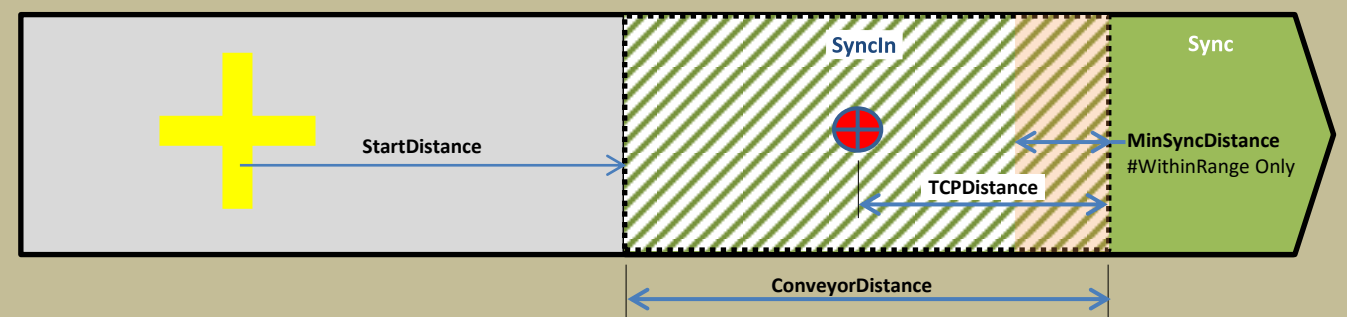
TrackOptions

```

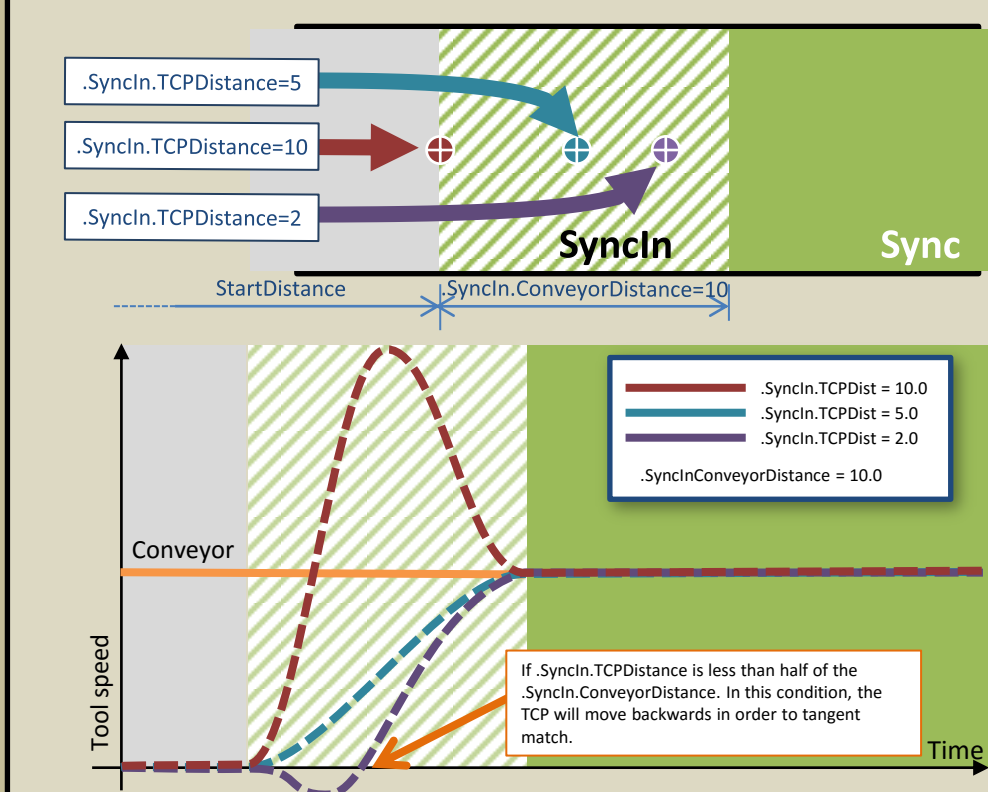
Y_TrackOptions : STRUCT
  SyncIn      : Y_TrackSyncInOptions;
  SyncOut     : Y_TrackSyncOutOptions;
  TrackScaling : LREAL;
  Reserved    : Y_TrackOptionsReserved;
END_STRUCT;

Y_TrackSyncInOptions : STRUCT
  Mode          : INT;
  Padding1      : INT;
  Padding2      : DINT;
  ConveyorDistance : LREAL;
  TCPDistance   : LREAL;
  MinSyncDistance : LREAL;
  AccelLimit    : LREAL;
  Reserved      : Y_TrackSyncInOptsReserved;
END_STRUCT;

Y_TrackSyncOutOptions : STRUCT
  Reserved1     : LREAL;
  ConveyorDistance : LREAL;
  Reserved      : Y_TrackSyncOutOptsReserved;
END_STRUCT;
    
```



- ### Y_TrackProfileMode:
- 0 = Y_TrackProfileMode#MasterDistance
 - 1 = Y_TrackProfileMode#ElapsedTime
 - 2 = Y_TrackProfileMode#WithinRange
 - 3 = Y_TrackProfileMode#AccelLimited
- **#MasterDistance** – SyncIn beginning at Execute (wait until part passes SD if needed) and finish at [Parameter] conveyor units later.
 - **#WithinRange** – SyncIn beginning at Execute (wait until part passes SD if needed) and finish at fixed conveyor position [Parameter] units past SD.
 - **#ElapsedTime** – SyncIn beginning at Execute (wait until part passes SD if needed) and finish [Parameter] milliseconds later.
 - **#AccelLimited** – SyncIn beginning at Execute (wait until part passes SD if needed) and accelerate to catch part as soon as possible, with acceleration rate limited by [AccelLimit].



SEE GRAPHICAL EXPLANATION TO THE RIGHT.