

Relative Job

KEY BENEFITS

- Conversion from a pulse-type job to a relative job
- With Relative Job, complete jobs can be moved relative to any user-defined frame of reference
- Commonly used with cameras or other sensors to move programs relative to shifting parts
- Robot programs can be “cloned” and moved to other stations or robot cells with USER Frame defined

OVERVIEW

The robot usually stores position data in the form of pulse counts (motor rotation pulses of each axis). The job (program) consisting of the pulse-count data is called a “standard job”. In contrast to the standard job, the relative job consists of position data in the X, Y and Z coordinate system (such as base coordinate and user-defined coordinate). Converting the standard job creates a separate relative job.

Although programming movement of the relative job itself is no different from the standard job, the relative job has a useful function to shift the movement to another frame of reference. A relative job’s entire set of motions can be easily moved to follow any user frame such as a moving part or an object found with a camera. Jobs can be converted to cartesian coordinates based on base frames (tracks), robot frames, user frames or master tool frames (positioners).

