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**Subject:** Stepper Axes with Z mark

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## Application Note

### **Applications:**

Some applications require a stepper motor axis to be datumed using a once per turn "Z" signal. This signal is fed into the controller using the incremental encoder "Z" connections. The A and B channels remain outputs for step and direction signals.

### **Controllers:**

MC206X and Euro205X with system software 1.6647 or higher.

### **KEYWORDS:**

- ATYPE=37 – This new ATYPE sets a stepper axis with Z input. Note that the feature enable codes must be set for a STEPPER/ENCODER axis before setting ATYPE=37.
- MICROSTEP=ON – The MICROSTEP keyword is used on EURO205X and MC206X to select Quadrature output. MICROSTEP=OFF selects step/direction output.

### **Example:**

`\ datum on Z mark:`

```
BASE(1)  
ATYPE=37  
CREEP=400  
WDOG=ON  
DATUM(1)  
WAIT IDLE
```