

## AKI Sample Project: Simple Config

### Overview

This HMI program is set up to be able to configure and run the AKD drive in some of the most common methods. The operator can select operation modes, configure and execute motion commands, and read status.

#### Features:

- Select operating mode
- Setup and run the drive in each operating mode
- Configure and start homing
- Create, edit, and run motion tasks
- Read actual position, velocity, and current
- Stop motion
- Configure user units

#### Requirements:

- HMI program is set up for the AKD to have IP Address 192.168.0.2.
- Must have MODBUS.SCALING = 0 in order to use internal drive user units

## Screenshots of the HMI screens:



Figure 1: Menu

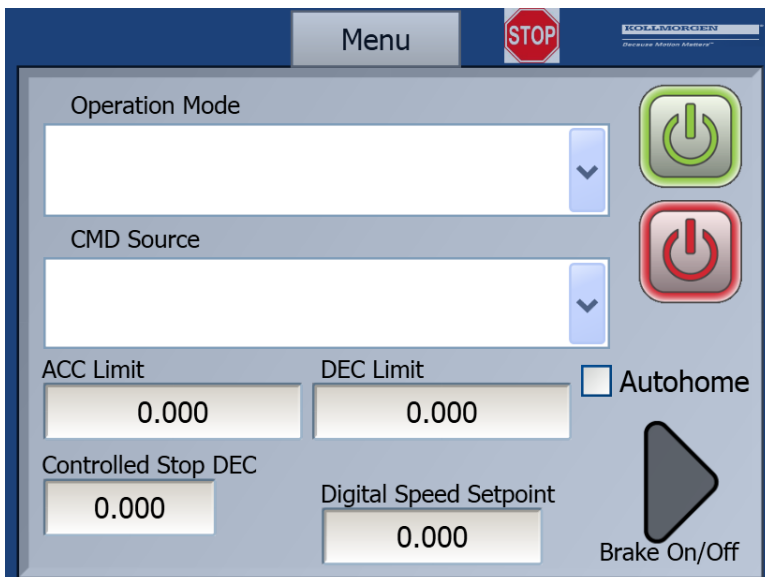


Figure 2: Operating Mode and Other Controls

# Application Note

**KOLLMORGEN**<sup>®</sup>

*Because Motion Matters™*

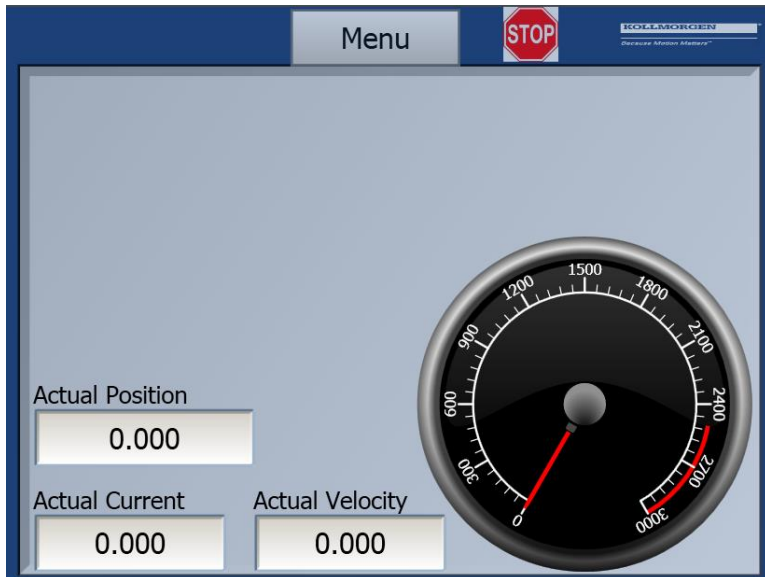


Figure 3: Status

The screenshot shows the 'Units' configuration screen. It features a 'Menu' button and a red 'STOP' button at the top. The main area is divided into two columns. The left column contains three dropdown menus for 'Position Unit', 'Velocity Unit', and 'Acceleration Unit'. The right column contains three input fields: 'User Unit Ratio' (0), 'User Units : Motor Revs' (0), and 'DRV.EMURES' (0). The 'User Units : Motor Revs' field is labeled 'Lines/rev'.

Figure 4: Units

# Application Note

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The screenshot shows the 'Motion Tasking' screen of the Kollmorgen control system. At the top, there is a 'Menu' button and a red 'STOP' icon. The main area contains several input fields and buttons: 'Task Number' (0), 'MT.LOAD' button, 'NV Save' button, 'Set Home' button, 'Target Position' (0.000), 'Target Speed' (0.000), 'Acceleration' (0.000), 'Deceleration' (0.000), 'Number of Task to Run' (0), 'Move' button, 'Continue' button, 'Motion Task Type' dropdown menu, 'Actual Position' (0.000), 'Set' button, and 'Clear' button. A green power button icon is also visible on the left side.

Figure 5: Motion Tasking

The screenshot shows the 'Analog I/O' screen of the Kollmorgen control system. At the top, there is a 'Menu' button and a red 'STOP' icon. The main area contains several input fields and labels: 'Velocity Scale' (0.000 Units / Volt), 'Current Scale' (0.000 Units / Volt), 'Position Scale' (0.000 Units / Volt), 'Analog Offset' (0.000 Volts), 'Analog Input Value' (0.000 Volts), 'Analog Output Value' (0.000), 'User Defined A-Out Value' (0.000), and 'Output Position Scale' (0.000).

Figure 6: Analog I/O

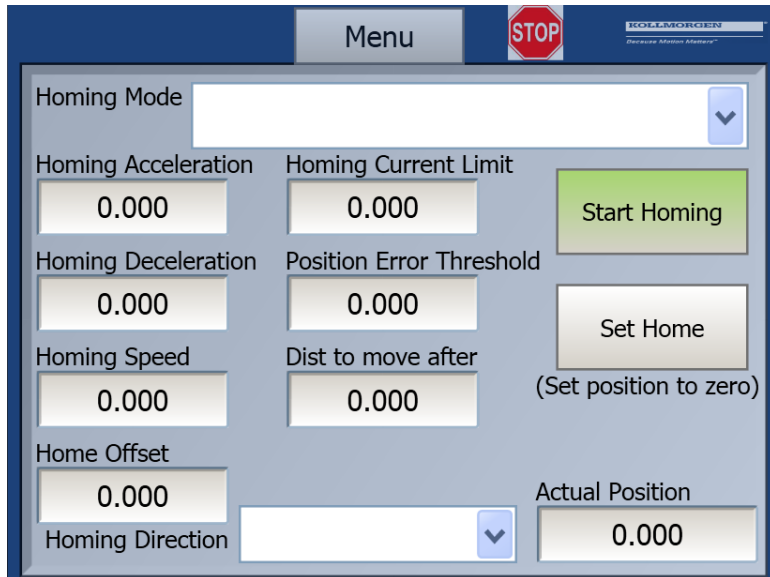


Figure 7: Homing

## Script Programming in C#

### Motion Task Screen:

```
public partial class MT
{
    //When the Move button is pressed, send the move number to MT.MOVE.
    //Create this code by expanding the object name (Button4) in the tree,
    //and double clicking on "Click".
    void Button4_Click(System.Object sender, System.EventArgs e)
    {
        Globals.Tags.MT_MOVE.Value = Globals.Tags.Movetomake.Value;
    }
}
```