

Overview of KVB Sample Project:

KVB_Sample_AKD_240SP3

For KVB version 2.40 Build 2.43.17.0 (Service Pack 3)

Overview:

This HMI program is set up to run motion tasks in the AKD drive. The operator can run each of 5 predefined motion tasks saved in the drive (Motion Tasks 2-6). The operator can edit the distance (or target position) and speed of one of the motion tasks (Motion Task 1). Indicators show the status of motion. The HMI will indicate if homing is complete, and the homing move can be started from the HMI. This program is also set up to run a manual jog move in velocity mode and a Service Motion move in position mode. The HMI can show fault codes whenever faults are active, and it provides the capability of clearing the faults.

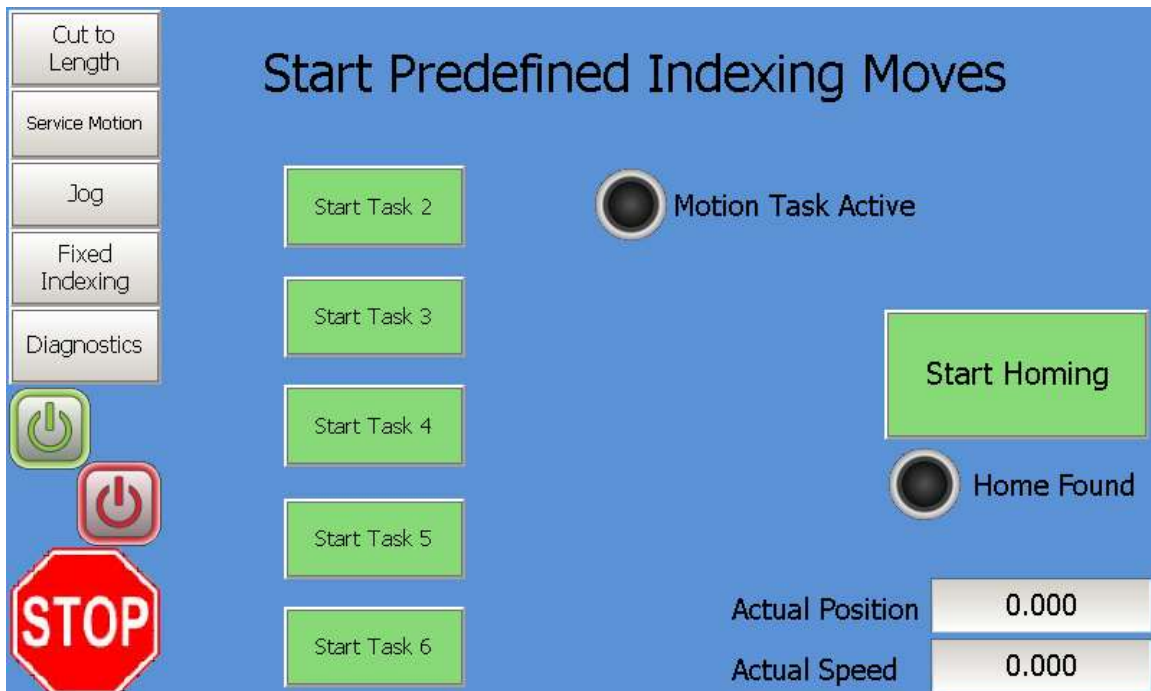
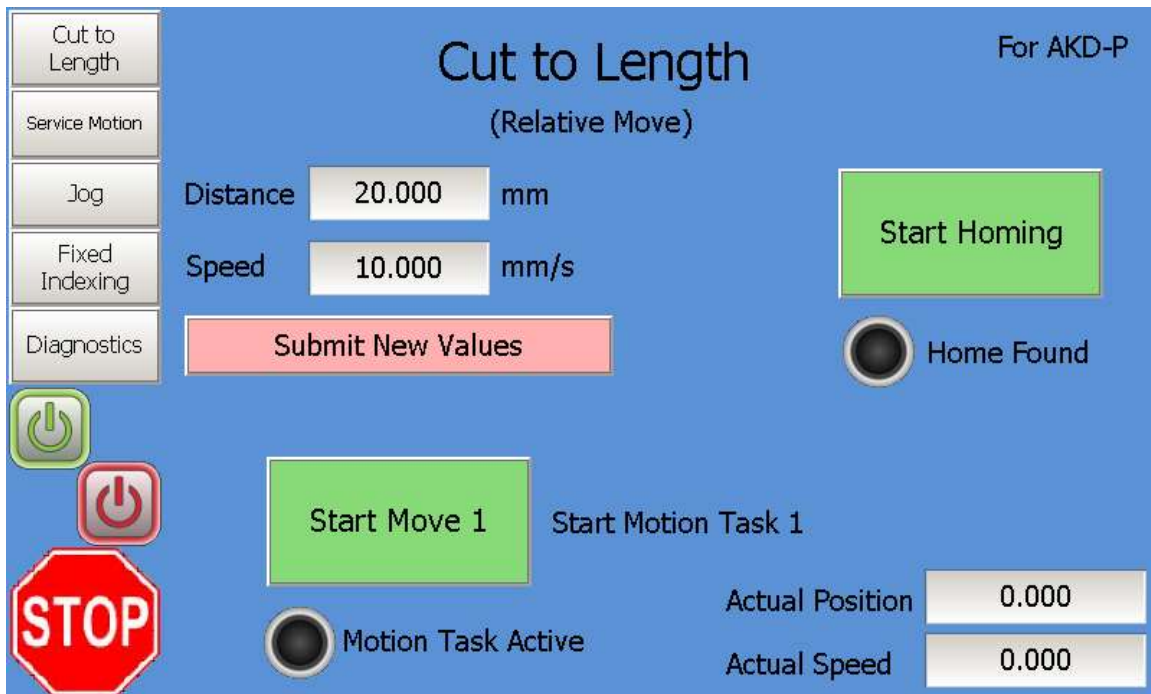
Features:

Start homing
Display homing status
Edit distance and speed of Motion Task 1
Run saved motion tasks (Tasks 2-6)
Display fault codes
Clear faults
Manual Jog (velocity mode)
Service Motion (Jog) (position mode)
Stop motion
Enable/disable
Display actual position, velocity
Save parameters to NV memory

Requirements:

- HMI program is set up for the AKD to have IP Address 192.168.0.6. Either configure the drive for that IP address or change the KVB controller settings for a different IP address.
- Must have Motion Tasks 1-6 saved in the drive.
- Must have the desired homing type and related settings saved in the drive
- Must have MODBUS.SCALING = 0 in order to use normal drive units.
- C# scripts are required (see below).

Screenshots of the HMI screens:



Cut to Length

Service Motion

Jog

Fixed Indexing

Diagnostics

STOP

Jog (Velocity Mode)

←

STOP

→

Jog speed

0.000

mm/s

Actual Position

0.000

Actual Speed

0.000

0 25 50 75 100 125 150 175 200

Cut to Length

Service Motion

Jog

Fixed Indexing

Diagnostics

STOP

Service Motion

STOP

→

Pulse/Continuous

Reversing

Speed 1

10

mm/s
Time 1

500

ms (0=continuous)

Speed 2

-10

mm/s
Time 2

500

ms

Actual Position

0.000

Actual Speed

0.000


Cut to Length


Service Motion


Jog

Fixed Indexing

Diagnostics







Diagnostics

Fault Codes

Fault 1	0
Fault 2	0
Fault 3	0
Fault 4	0
Fault 5	0

Clear Faults

Save Parameters

Script Programming in C#:

CutToLength screen:

```
namespace Neo.ApplicationFramework.Generated
{
    using System.Windows.Forms;
    using System;
    using System.Drawing;
    using Neo.ApplicationFramework.Tools;
    using Neo.ApplicationFramework.Common.Graphics.Logic;
    using Neo.ApplicationFramework.Controls;
    using Neo.ApplicationFramework.Interfaces;
        using System.Threading;

    public partial class CutToLength
    {

        void Run_Opened(System.Object sender, System.EventArgs e)
        {
            Globals.Tags.MT_NUM.Value = 1;
            Thread.Sleep(100);
            Globals.Tags.MT_LOAD.Value = 1;
        }
    }
}
```

Jog screen:

```
namespace Neo.ApplicationFramework.Generated
{
    using System.Windows.Forms;
    using System;
    using System.Drawing;
    using Neo.ApplicationFramework.Tools;
    using Neo.ApplicationFramework.Common.Graphics.Logic;
    using Neo.ApplicationFramework.Controls;
    using Neo.ApplicationFramework.Interfaces;

    public partial class Jog
    {
        void Picture2_MouseDown(System.Object sender,
System.Windows.Forms.MouseEventArgs e)
        {
            Globals.Tags.VL_CMDU.Value=Globals.Tags.JogSpeed.Value * -1;
        }

        void Picture3_MouseDown(System.Object sender,
System.Windows.Forms.MouseEventArgs e)
        {
            Globals.Tags.VL_CMDU.Value=Globals.Tags.JogSpeed.Value;
        }

        void Jog_Opened(System.Object sender, System.EventArgs e)
        {
            Globals.Tags.DRV_OPMODE.Value=1;
        }

        void Picture1_MouseDown(System.Object sender,
System.Windows.Forms.MouseEventArgs e)
        {
            Globals.Tags.VL_CMDU.Value=0;
        }

        void Jog_Closing(System.Object sender,
System.ComponentModel.CancelEventArgs e)
        {
            Globals.Tags.VL_CMDU.Value=0;
            Globals.Tags.DRV_OPMODE.Value=2;
        }
    }
}
```