

# **APPLICATION NOTE**

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### **Product Family: Point of View**

Number: AN-POV-016

Date Issued: 5-6-15

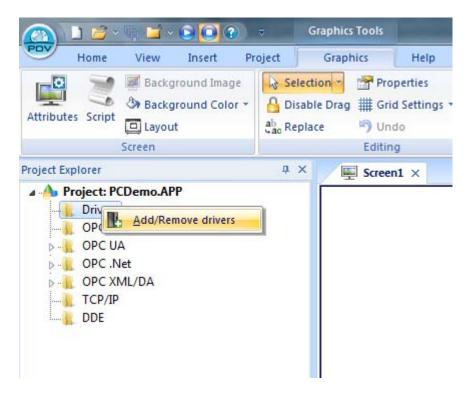
Subject: Implied Decimal place view of numeric value

**Revision:** 

## **POV Implied decimal**

In this application note we will be showing the process of showing an implied decimal on an integer in Point of view software. This process will not work directly on Tag integrated tags. This will have to be done in the Main or Standard driver sheets after manually adding tags. You can have both integrated tags and manually mapped tags in the same project, but only manually mapped tags can be scaled. *Realize that the manually mapped tag will need a unique tag name that is different from the Tag integration*.

Given a current running project we are going to start with adding a Koyo driver. Under the communication tab of the Project browser right click on the Driver and the following will display. Just select the Add/ Remove Drivers option when it displays.





Here you will see the following popup and just select Koyo or which driver you are planning to use. Here we are selecting the Koyo driver.

| DLL                     | Description  | ^ | Help      |
|-------------------------|--|---|-----------|
| ABTCP<br>DOMOR<br>FANUC | Allen Bradley Ethernet, DF1 Protocol (PLC2, PLC5 and SLC500) Families (CE) [v10.7]<br>AutomationDirect Do-MORE PLC- v[1.2]<br>GE FANUC, SNP Serial Protocol - Series 90 / 90/30 CPU 341 (CE) [v10.4] |   |           |
| KOYO                    | DirectLogic Koyo, CCM/ECOM protocol (DL240/DL250+H2-ENET)(CE) [v1.18]  |   |           |
| MELSE                   | MELSE, Mitsubishi - MELSEC Protocol (CE) [v10.4]   |   |           |
| MITSU                   | MITSUBISHI Protocol, FX Series (CE) [v10.7.0]  | - |           |
| •                       | III  | • | Select >: |
| elected dri             |  |   |           |
| DLL                     | Description  |   | >> Remov  |
|                         |  |   |           |

Once the driver has been selected and the OK button clicked, you will see the Main Driver Sheet option as seen below. Within the Main driver sheet start by giving your integer tag a name, as seen below.

|  | a lower descent last                         |                    |   |   |           | Point of View - KOY | O - MAIN DRIVER SH |
|--|--|--------------------|---|---|-----------|---------------------|--------------------|
| Home View Insert Project He  | lp   |                    |   |   |           |                     |                    |
| Paste 676 Find 676 Fi | Download<br>Run<br>Stop<br>Remote Management | gWin Verify        | Import Wizard<br>Convert Resolution<br>Register Controls<br>Tools | eplace<br>a Replace<br>Remove unus<br>Reset tags da |           |                     |                    |
| Project Explorer 4 ×   | WOYO - MAIN DRIVER SH                        |                    | 10013   |   | rays      |                     |                    |
|  |  | Status:<br>Status: | Min:  |   |           |                     |                    |
|  | Tag Name                                     | Station            | I/O Address   | Action  | Scan      | Div                 | Add                |
|  | Silter text                                  | Silter text        | 🔍 Filter text   | 🔍 (All)   | - 🔍 (All) | 👻 🔍 Filter text     | Silter text        |
|  | 1 V2000_wimpliedDECimal                      |                    |   | Read+Write  | - Always  | *                   |                    |
|  | *  |                    |   | Read+Write  |           | -                   |                    |
|  | *  |                    |   | Read+Write  |           | Ŧ                   |                    |
|  | *  |                    |   | Read+Write  | + Always  | -                   |                    |
|  | *  |                    |   | Read+Write  | ▼ Always  | <b>T</b>            |                    |
|  | *  |                    |   | Read+Write  | ▼ Always  | -                   |                    |
|  |  |                    |   |   |           |                     |                    |



Once you enter the name and press enter you will see the following popup.

| Question | × (  |
|----------|--|
| ?        | Tag 'V2000_wImpliedDECImal' does not exist.<br>Would you like to create this tag ? |
|          | Yes No   |

Here select yes. Then you will see the following option selection. *In this option you will be selecting Real type*. This must be a real type so that the tag inside of the POV project has decimal points.

| New Tag      | ×                     |
|--------------|-----------------------|
| Name:        | V2000_wImpliedDECImal |
| Array:       | 0                     |
| Туре:        | Real                  |
| Description: |                       |
| Scope:       | Server 👻              |
|              | OK Cancel             |

Now you need to finish filling out the required information in this driver sheet. In station you are placing your IP address, if over Ethernet, or the node number, if over Serial. In the IO address the formatting here is determined upon the driver you are using. *Please see the relevant Driver help file for the driver type you are using for the correct formatting.* In this example we are setting up V2000 as a 16 bit BCD Integer.

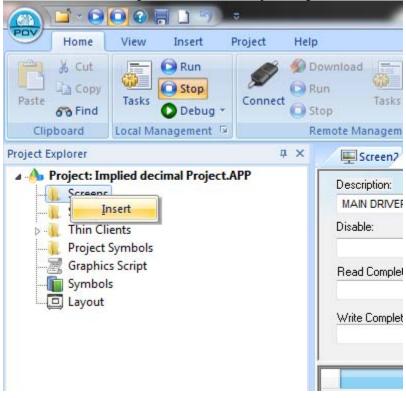


The way we determine the decimal places is by the divider here in the driver sheet as shown below. In this example we are converting the integer into a real with two decimal places.

|  |  |                        |                         |            | Point of View              | - KOYO - MAIN DRIVE | R SHEET     |
|--|--|------------------------|-------------------------|------------|----------------------------|---------------------|-------------|
| Home View Insert Project Help  |  |                        |                         |            |                            |                     |             |
| te 66 Find Tasks Debug - Connect OS  | Tasks Database LogWin Ver<br>Spy   | rify 😤 Register Contro | Bis Replace 🔀 Reset tag |            |                            |                     |             |
|  | emote Management 😼   | Tools                  | G                       | Tags       |                            |                     |             |
| t Explorer 🛛 🕮 🗙   | 🖳 Screen 3 🐨 KOYO - MAIN DRIVER  | R SHEET ×              |                         |            |                            |                     |             |
| Project: Implied decimal Project.APP  Drivers KOYO MAIN DRIVER SHEET OPC DA 2.05 | Description:<br>MAIN DRIVER SHEET<br>Disable:  |                        |                         |            |                            |                     |             |
| GPC UA<br>GPC Net<br>OPC XML/DA<br>TCP/IP<br>DDE                                 | Read Completed: Read Status:   | Min:                   |                         |            |                            |                     |             |
|  | Tag Name   | Station                | I/O Address             | Action     | Scan                       | Div                 | Add         |
|  | Sector 1 Sec | 🔍 Filter text          | Silter text             | 🔍 (All)    | - 🔍 (All)                  |                     | Silter text |
|  | 1 V2000_wImpliedDECImal  | 10.101.2.30            | V:2000                  |            | - Always                   | - 100.000000        |             |
|  | *  |                        |                         | Read+Write | ▼ Always                   | -                   |             |
|  | *  |                        |                         | Read+Write | * Always                   | -                   |             |
|  | *  |                        |                         | Read+Write | <ul> <li>Always</li> </ul> | -                   |             |
|  | *  |                        |                         | Read+Write | <ul> <li>Always</li> </ul> | •                   |             |
|  | *  |                        |                         | Read+Write | <ul> <li>Always</li> </ul> | *                   |             |
|  |  |                        |                         |            |                            |                     |             |



If you don't already have a screen created please create one by right clicking on the Screen folder, under the Graphics tab of the Project Explorer.





#### Here you will need to format your screen options.

| Description: Implie                  | d Decimal screen |                    |            |                              |  |  |
|--------------------------------------|------------------|--------------------|------------|------------------------------|--|--|
| Background Picture                   |                  | Size               |            | Location                     |  |  |
| 🔲 Enable Background                  | BMP              | ➡ Width:           | 1280       | Top: 0                       |  |  |
| Shared image:                        |                  | Height:            | 1024       | Left: 0                      |  |  |
| Runtime Properties                   |                  |                    |            | Security                     |  |  |
| Titlebar:                            |                  |                    |            | Level: 0                     |  |  |
| System Menu                          | Style:           | Replace(Partial) - |            | Screen Logic                 |  |  |
| Maximize Box<br>Bord                 |                  | None               | •          | On Open                      |  |  |
| Minimize Box                         |                  |                    | While Open |                              |  |  |
| Disable Commands:                    |                  |                    | _          | On Close                     |  |  |
| Disable Commands.                    |                  |                    |            | Multi Touch Settings         |  |  |
| Focus                                |                  |                    | Performa   | nce Optimization             |  |  |
| 🔽 Receive focus on op                | ben              | Tab Order:         | 🔲 Hide     | screen instead of closing it |  |  |
| V Share tab order with other screens |                  | 0                  | 📃 Кеер     | screen file in memory        |  |  |
| Background screen                    |                  |                    | ļ          |                              |  |  |

Now that this screen has been created you will need to add a Text box to your screen. The Text box can be found under the Main tab of Graphics as seen below.

| -    | Point of View - Screen3  |              |           |  |  |  |  |
|------|--|--------------|-----------|--|--|--|--|
| ngle | A     Text     Pushbutton     Image: Combo Box       Image: Text Box     Image: Check Box     Image: List Box       Image: Button     Image: Radio Button     Image: Smart Message | Alarm/Event  | Symbols   | <ul> <li>♂ Command ab Text Data Link</li> <li>Q HyperLink W Color</li> <li>Bargraph Ø Visibility/Positi</li> </ul> |  |  |  |
|      | Active Objects   | Data Objects | Libraries | Animations   |  |  |  |



#### Then add the text box to your screen, as seen below.

|   | Graphics Tools | Object Tools |   |        |
|---|----------------|--------------|---|--------|
| Home View Insert Pr   | oject Graphics | Format       | Help  |        |
| Attributes Script<br>Script<br>Screen   |                |              | e Closed Polygon Clubes<br>Closed Polygon Clubes<br>Closed Polygon Clubes<br>Closed Polygon Clubes<br>Closed Polygon Clubes | A Text |
| Project Explorer  | # × 🖉 🖳 Sci    | reen3 ×      |   |        |
| <ul> <li>Project: Implied decimal Project.AF</li> <li>Screens</li> <li>Screen Group</li> <li>Thin Clients</li> <li>Project Symbols</li> <li>Graphics Script</li> <li>Symbols</li> <li>Layout</li> </ul> |                |              |   |        |

Now double click on you Text Box object and the following object property box will appear. In this Dialog box we determine the format by the Mask/count. Here we are limiting the display to 2 decimal places. Now that the formatting has been selected you **MUST** select that maximum and minimum range of the tag value. Here the max allowable range for a 16 bit BCD integer is 9999.

| Object Properties |                      |                   |                        |  |
|-------------------|----------------------|-------------------|------------------------|--|
| Replace           | Hint                 | Text Box          | •                      |  |
| Tag/Expression:   | V2000_wImpliedDE0    | ImpliedDECImal    |                        |  |
| Format            | Auto 🔻               | 📝 Input Enabled   | Fonts                  |  |
| Mask/Count        | ##.##                |                   |                        |  |
| Minimum Value:    | 0                    |                   |                        |  |
| Maximum Value:    | 99.99                |                   |                        |  |
| Disable           |                      |                   |                        |  |
| Multi-line        | Croll Bar            | Word Wrap         |                        |  |
| Password 🗸 🛛      | nable Translation    | RTL               | Security: 0            |  |
| 🔲 E-Sign 📃 F      | Require confirmation | Virtual keyboard: | <use default=""></use> |  |



Now that this is done, save your progress by selecting the POV button at the top left hand corner of the development environment and select "SAVE ALL".

| POV                    |   |                     | H          | telp   |
|------------------------|---|---------------------|------------|--|
| New                    | Recent Projects   |                     | -          | ✓ Line Rectangle<br>↑ Open Polygon Rounded Rec |
| Open <u>P</u> roject → | 2 C:\Users\\TIM TEST OFFICE   |                     | range<br>* | Closed Polygon Cllipse<br>Shapes               |
| <u>S</u> ave           | 3 C:\Users\\Email_Gmail   |                     |            |  |
| Save <u>A</u> s        | <u>4</u> Directlogic_Tagint<br><u>5</u> Z:\Email_Gmail\\Email_Gmail |                     |            |  |
| Save All               | 6 C:\Users\ABCIP  |                     |            | 2.5.<br>8.7.                                   |
|                        | all documentsects   |                     | · · · · ·  |  |
| Print +                | _   |                     |            |  |
| <u>C</u> lose          |   |                     |            |  |
|                        | Project Settings  | KExit Point of View |            | · · · · · · · · · · · · · · · · · · ·          |
|                        |   |                     |            |  |

Now run your project and you will have made a two decimal place implied decimal.

#### Technical

**Assistance:** If you have questions regarding this Application Note, please contact us at 770-844-4200 for further assistance.