notion pro

Notion OPC Server User Guide

Notion OPC Server v1.0

Contents

Document History

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1	22/03/2016	First issue.	IB	

1 Introduction

The purpose of this document is to describe the interaction between OPC clients and the Notion OPC Server.

This document does not cover the Notion OPC installation process. For installation details, refer to the Notion OPC Installation Guide, doc no. IM5639.

1.1 Basic Principles

The Notion OPC Server provides an OPC interface to a given Notion system and acts as an OPC server capable of providing information about any of the sensors available within Notion.

OPC nodes are created using the Notion Sensor name suffixed with various attributes in the following form:

- IMC.Notion.OPC.1
    - { Notion Sensor Name}
        - {Channel}

1.2 Address Formatting

The OPC addresses used by the system are delimited with full stops so to avoid confusion in the resulting output any sensor names that contain full stops will have them replaced with hyphens instead.

1.3 Supported OPC Specifications

The Notion OPC Server supports the Data Access specifications OPC DA 2.0 and OPC DA 3.0.

2 Post Installation Configuration

2.1 Device Name Changes

Because the OPC server addresses devices according to the device's name if a devices name is changed a new device will be added to the list. The original address will not be removed until the Notion OPC server service is restarted.

2.2 Changing the Database Location

Under some circumstances you may want to change the target database location or check that the connection information is configured correctly. This information is stored in a setup.xml file located in your common application data. This can normally be found in the following path 'C:\ProgramData\The IMC Group\Notion OPC Server\setup.xml'. Please note that the drive designation and initial folder path may differ depending on your machines operating system and configuration.

The database connection string is made up of a number of parts and we recommend you only modify the Data Source part of the 'DBConnection' node as highlighted in yellow below. Once the path has been modified restart the service and the system should now point at the new location.

```
<?xml version="1.0" encoding="UTF-8"?>
<Setup>
    <DBConnection>Data Source=MyPC\SQLExpress;Initial Catalog=notionPro;Integrated Security=True;MultipleActiveResultSets=True;</DBConnection>
    <Debug On="true">
        <Port>11016</Port>
    </Debug>
</Setup>
```

3 OPC Mapping

3.1 Sensor Mapping

Each sensor is made up of the following items when it will only display channels that are available to it, therefore a single channel device will only have a ***{chan1}*** and no other ***{chanX}***:

- ***{Notion Sensor Name}***
    - **OutOfService** **Boolean** Is in service
    - **HardwareSerialNumber** **String** Hardware serial number
    - **Battery Low** **Boolean** Battery is low
    - **InputType** **Integer** Enumeration (not currently specified)
    - **LoggingInterval** **Integer** Time in minutes between logging
    - **DateCalibrationDue** **DateTime** Calibration due data
    - **LastCommunication** **DateTime** Last transmission received
    - ***{chan1}*** *Channel Node*
    - ***{chan2}*** *Optional Channel Node*
    - ***{chan3}*** *Optional Channel Node*
    - ***{chan4}*** *Optional Channel Node*

3.2 Channel Mapping

Each channel is made up of the following elements:

- ***{chanX}***
    - Type String Channel type e.g. humidity, temperature
    - Value Float Latest channel value
    - HighRange Boolean Channel is above High Range threshold
    - HighAlarm Boolean Channel is above High Alarm threshold
    - LowRange Boolean Channel is below Low Range threshold
    - LowAlarm Boolean Channel is below Low Alarm threshold