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Title:

Production users guide to setting up of  
'Incremental sources' in the Equinox  
ISP-PRO application

Author:

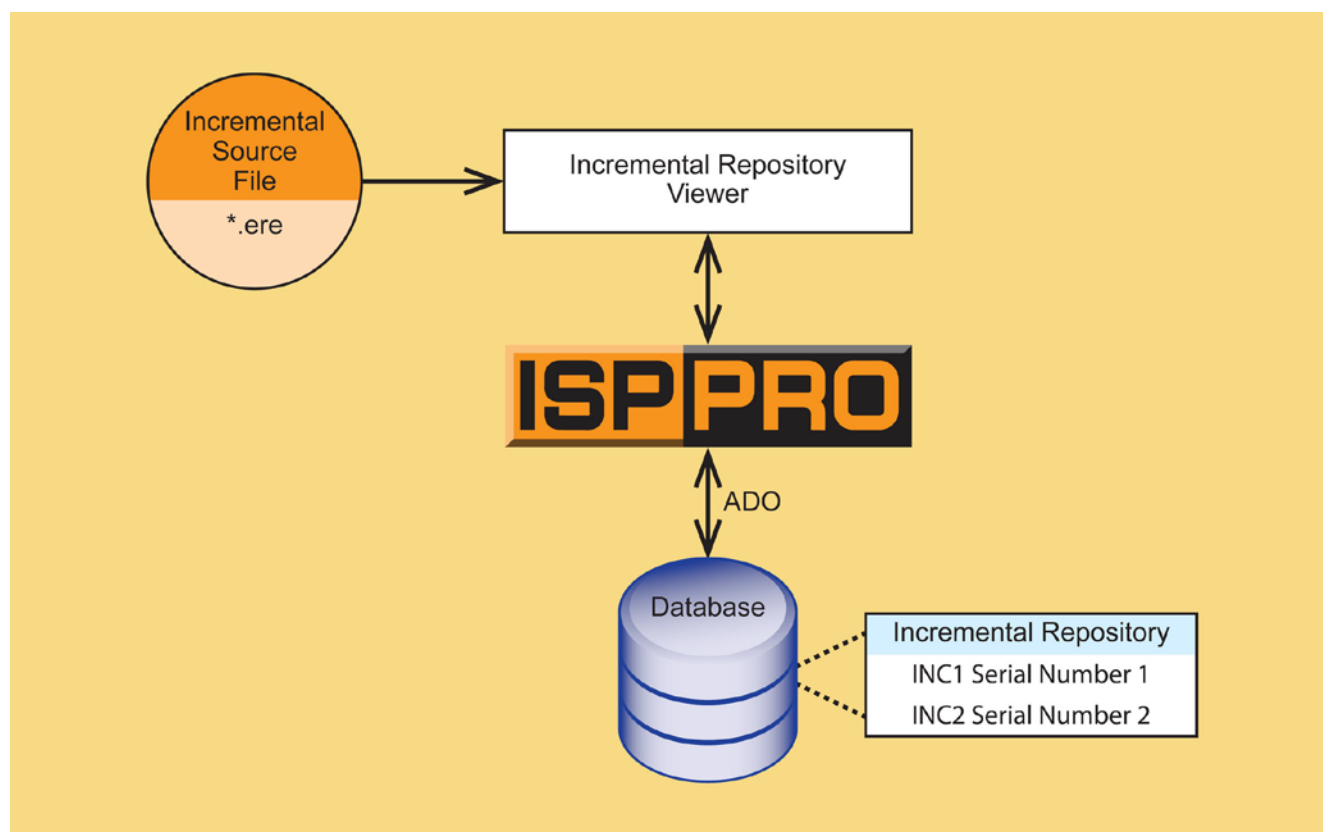
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## 1.0 Introduction

### 1.1 Overview

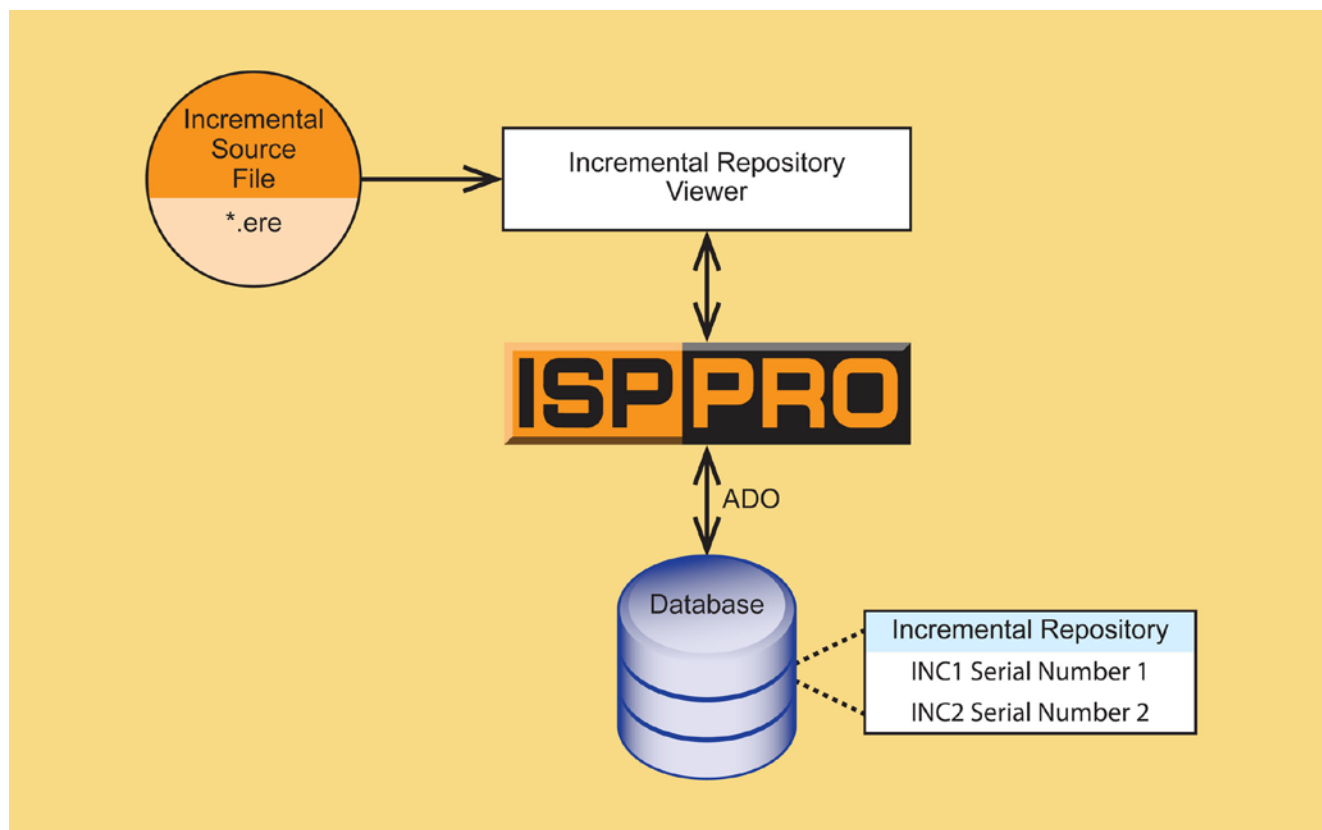
This application note is a production engineers guide to importing pre-defined **'Incremental Sources'** into the Equinox ISP-PRO **'Incremental Repository'**. This functionality allows pre-defined serial numbers, MAC address formats, date / time stamps etc to imported into an installation of ISP-PRO on a production PC by using an **'Incremental Source File'**.

#### **Important note:**


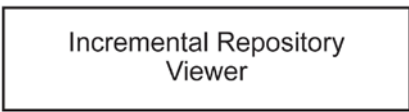

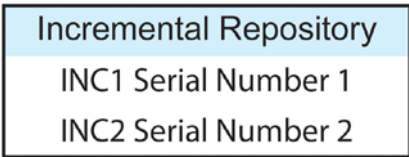
This application note only covers the importing of pre-defined **'Incremental Sources'** into the ISP-PRO **'Incremental Repository'**. If you need instructions on how to define / create the **'Incremental Sources'** in the first place, please refer to application note AN???

## 1.2 Explanation of Incremental Repository import

The illustration below shows how the utility within the Equinox ISP-PRO software application can be used to import a pre-defined 'Incremental source' from an 'Incremental Source File'.....



The different components shown in the above illustration are detailed in the table below...

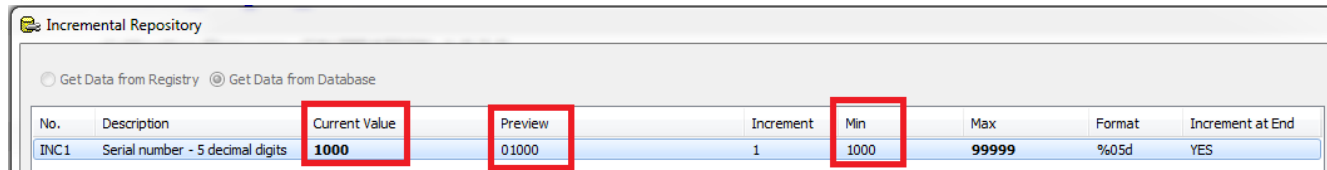
| Component   | Explanation  |
|---|--|
|  | Equinox 'ISP-PRO' software application   |
|  | The ' <b>Incremental Repository Viewer</b> ' is a utility within ISP-PRO which allows the ' <b>Incremental Repository</b> ' to be viewed.  |
|  | <ul style="list-style-type: none"> <li>The '<b>database</b>' is the '<b>Interface database</b>' which is linked to the ISP-PRO application.</li> <li>The '<b>Incremental Repository</b>' is stored in a dedicated table in this database.</li> </ul> |
|  | The ' <b>Incremental Repository</b> ' is a dedicated table within the ' <b>Interface database</b> ' which contains a list of all the ' <b>Incremental sources</b> ' which are set up on this PC.   |

## 1.3 Terminology definitions

This section describes the terminology used throughout this document....

### Incremental Repository

The '**Incremental Repository**' is simply a dedicated '**database table**' in the ISP-PRO '**Interface database**' which is used to store one or more '**Incremental Sources**'.

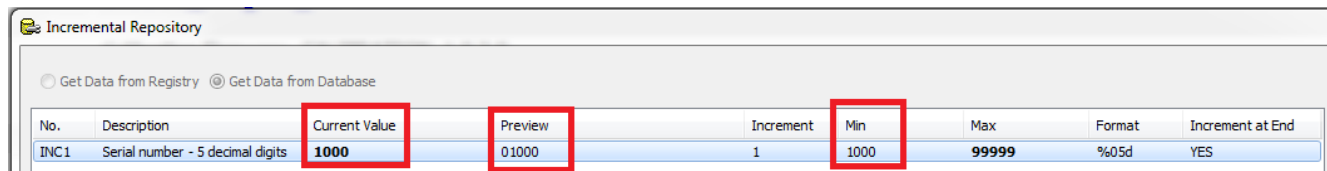


| No.  | Description                      | Current Value | Preview | Increment | Min  | Max   | Format | Increment at End |
|------|----------------------------------|---------------|---------|-----------|------|-------|--------|------------------|
| INC1 | Serial number - 5 decimal digits | 1000          | 01000   | 1         | 1000 | 99999 | %05d   | YES              |

The repository can hold any number of '**Incremental Sources**' which can be used to generate serial numbers etc which are then programmed into target devices via a '**programming script**' running in ISP-PRO.

### Incremental Source

An '**Incremental Source**' is defined as 'macro' stored in the '**Incremental Repository**' which is capable of generating incremental serial numbers, textual label text + serial numbers (combination), MAC addresses, random numbers, date / time stamps etc.



| No.  | Description                      | Current Value | Preview | Increment | Min  | Max   | Format | Increment at End |
|------|----------------------------------|---------------|---------|-----------|------|-------|--------|------------------|
| INC1 | Serial number - 5 decimal digits | 1000          | 01000   | 1         | 1000 | 99999 | %05d   | YES              |

## 1.4 Further information - related manuals and application notes

This application note focuses specifically on how to import pre-defined **'Incremental Sources'** into the Equinox ISP-PRO software application.

Please refer to further sources of documentation listed below for more detailed information about how to set up ISP-PRO and also how to create the **'Incremental Sources'** in the first place.

### User manuals / Programming Guides:

| Manual Ref | Title   |
|------------|---|
| ISP-PRO    | <b>ISP-PRO - User Manual</b><br>- This manual explains how to install and configure the Equinox ISP-PRO software application. |

## 2.0 Incremental Repository

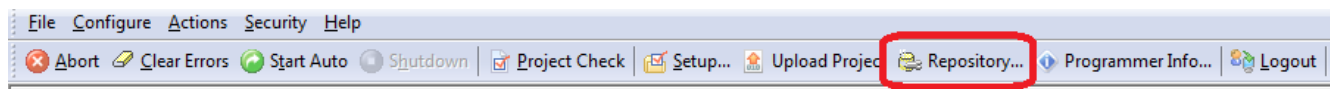
### 2.1 Viewing the Incremental Repository in ISP-PRO

The 'Incremental Repository' is simply a list of '**Incremental sources**' (serial numbers etc) which are stored in a special table in the ISP-PRO database.

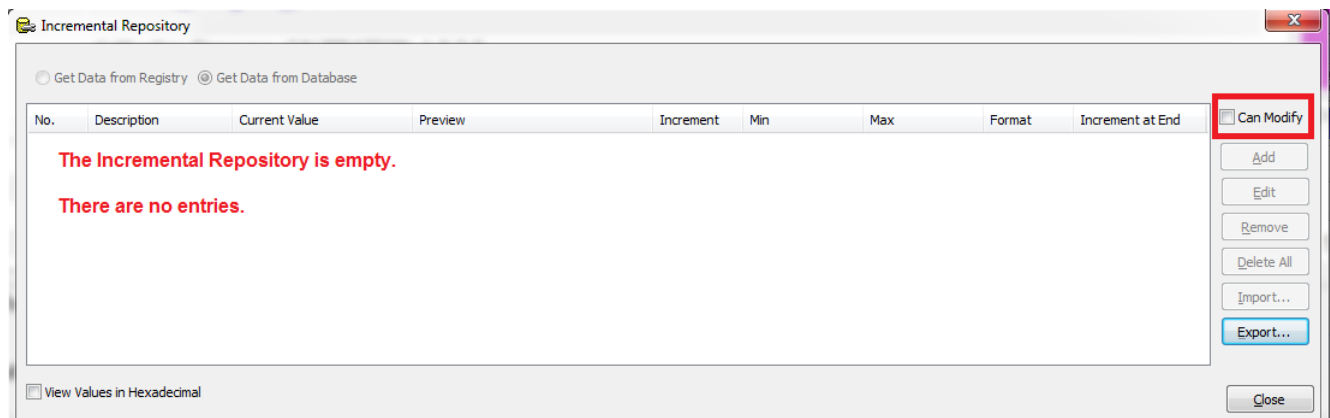
To view the ISP-PRO '**Incremental Repository**', please follow the instructions below...

#### Instructions

- Start the ISP-PRO application
- Log in to ISP-PRO (password: equinox)
- Click the '**Repository**' button on the ISP-PRO top icon bar...



If this is a virgin installation of ISP-PRO, then the '**Incremental Repository**' will be empty as shown in the screenshot below...



It is possible to either add an '**Incremental source**' manually or to import one from a pre-specified '**Incremental source**' file.

#### Important note:

This application note only covers the importing of pre-defined '**Incremental Sources**' into the ISP-PRO '**Incremental Repository**'. If you need instructions on how to define / create the '**Incremental Sources**' in the first place, please refer to application note AN???.

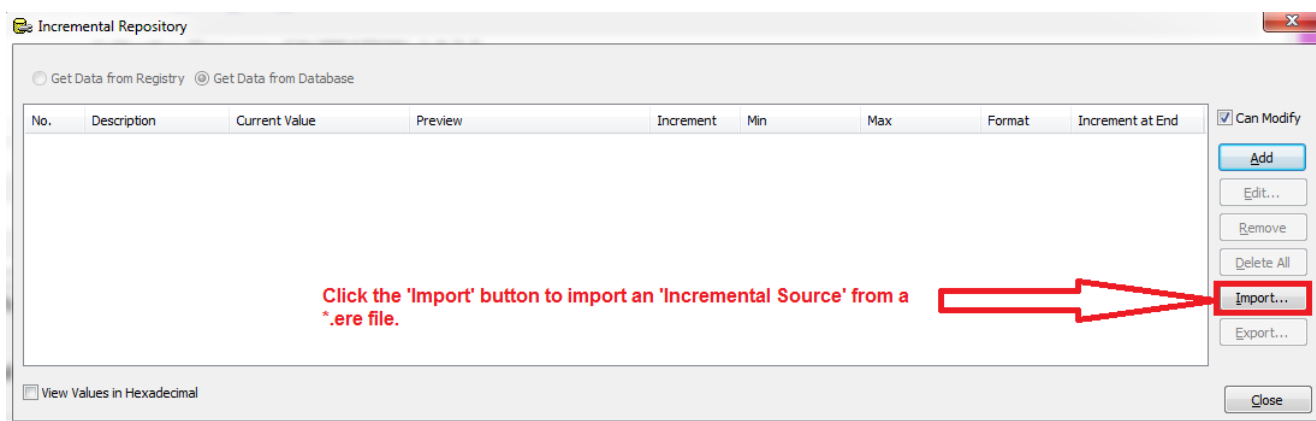


## 2.2 Importing an Incremental Source into the Incremental Repository

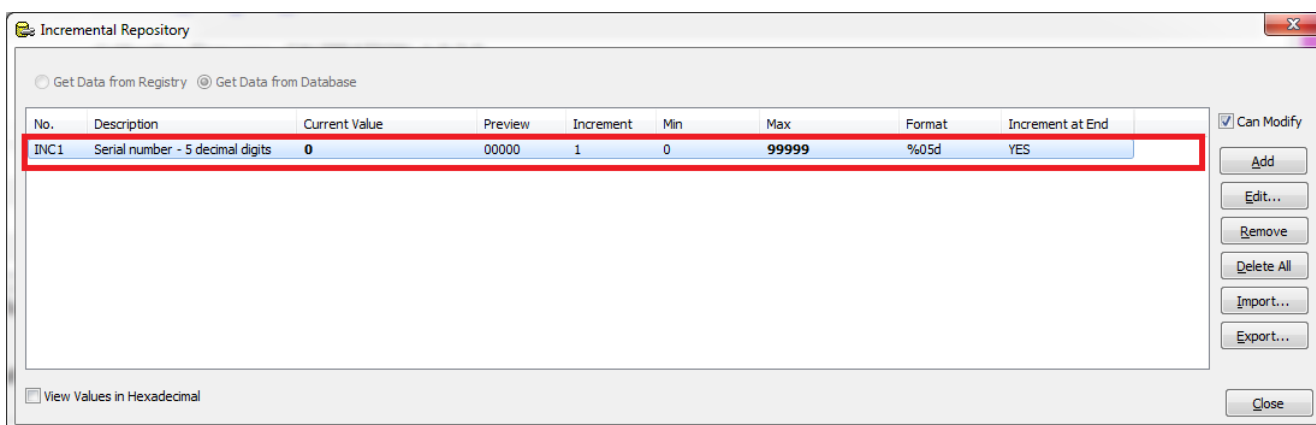
It is possible to import all the settings to set up an '**Incremental source**' from a pre-specified '**Incremental source**' file. This file must have the extension **.ere**.

### Instructions

- From the '**Incremental Source**' window, tick the '**Can Modify**' check box - see screenshot above.
- The '**Import**' button on the right-hand side of the window should now be selectable.



- A File Browser window will now appear.
- Browse to and select the required '**Incremental source**' file. This file will have a file extension of **.ere**. Example: **IncrementalSerialNumber-5digitdec.ere**
- The settings will then be imported from the '**Incremental source**' file into the '**Incremental Repository**' window as shown in the screenshot below...



In the above example, an '**Incremental source**' file has been imported and assigned to '**INC1**'. The '**INC1**' incremental source will generate a '**5-digit decimal Serial Number**' which increments by +1 every time the script runs and has a 'PASS' result at the end.

### Please note:

ISP-PRO will automatically number the imported '**Incremental source**' starting from '**INC1**'

The label '**INCx**' is used by the script being executed to define which '**Incremental source**' to use.

## 2.3 Importing multiple Incremental Sources

It is possible to define multiple '**Incremental sources**' at the same time which can be used by the same script or different scripts running in ISP-PRO depending on the customer application.

A typical example showing multiple can be seen in the screenshot below...

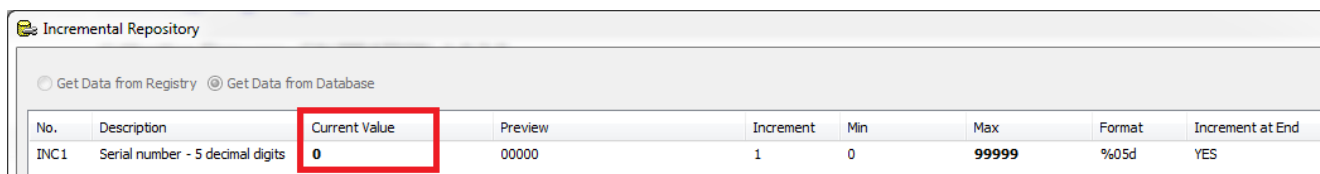
**Please note:**

The '**Incremental sources**' will be displayed in the same order (INC1.....INCx) that they were originally imported into the '**Incremental Repository**'.

## 2.4 Setting the 'Current value' of an Incremental Source

The '**Current value**' of an '**Incremental Source**' is the value which will be generated and used when the '**INCx**' is called next time by the programming script.

When an '**Incremental Source**' is initially imported into ISP-PRO from a \*.ere file, the '**Current value**' is often set to zero as shown in the example below.....

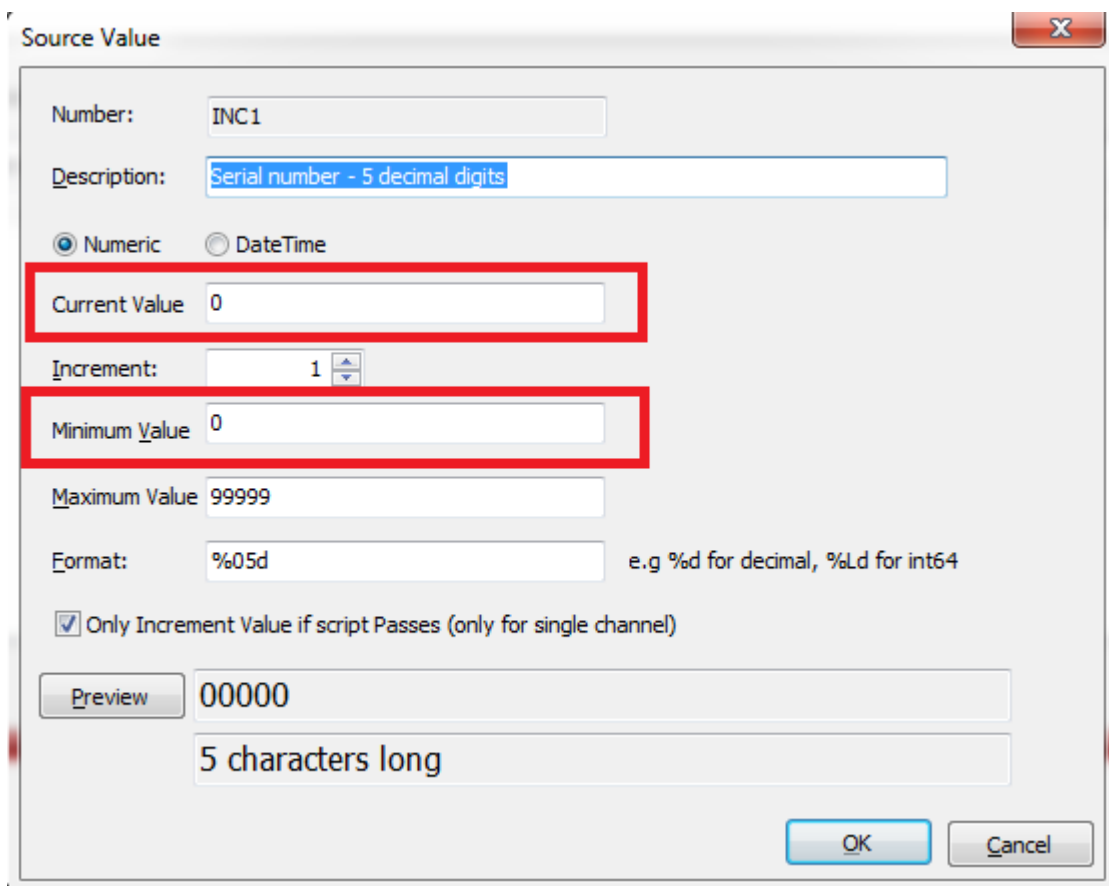


| No.  | Description                      | Current Value | Preview | Increment | Min | Max   | Format | Increment at End |
|------|----------------------------------|---------------|---------|-----------|-----|-------|--------|------------------|
| INC1 | Serial number - 5 decimal digits | 0             | 00000   | 1         | 0   | 99999 | %05d   | YES              |

This is not always the case, but most developers usually do not set the start value above zero.

If you want to change the '**Current value**' to a different start value, this can be achieved as follows...

- Launch the 'Incremental Repository' window
- Click the 'Can modify' tick box on the right-hand side of this window
- Now double-click the '**Incremental Source**' entry which you want to edit / change.



Source Value

Number: INC1

Description: Serial number - 5 decimal digits

☒ Numeric ☐ DateTime

Current Value: 0

Increment: 1

Minimum Value: 0

Maximum Value: 99999

Format: %05d e.g %d for decimal, %Ld for int64

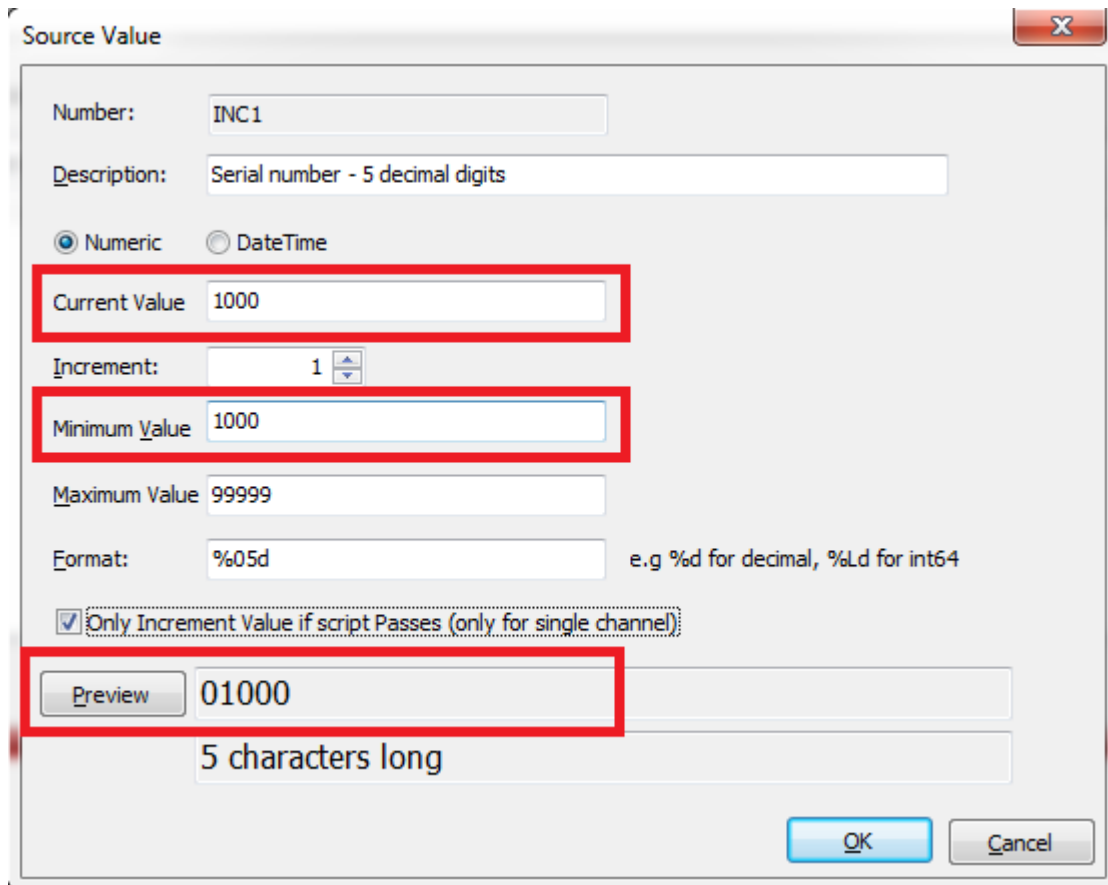
☒ Only Increment Value if script Passes (only for single channel)

Preview: 00000  
5 characters long

OK Cancel

- Change the '**Current value**' to your preferred '**Start value**' e.g. 1000
- Consider also changing the '**Minimum value**' to the same value.

- The '**Source value**' window will now look like this....

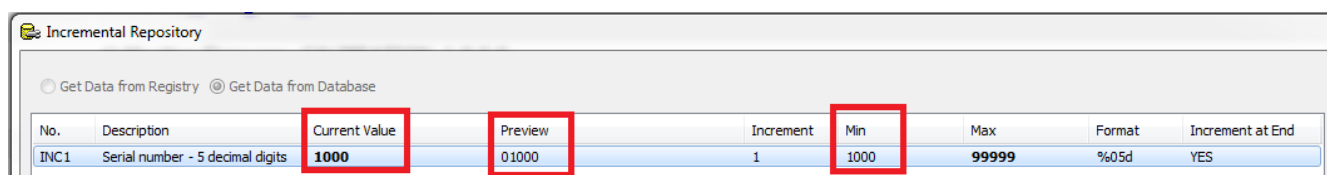


The 'Source Value' dialog box is shown with the following fields and values:

- Number: INC1
- Description: Serial number - 5 decimal digits
- ☒ Numeric ☐ DateTime
- Current Value: 1000
- Increment: 1
- Minimum Value: 1000
- Maximum Value: 99999
- Format: %05d (e.g. %d for decimal, %Ld for int64)
- ☒ Only Increment Value if script Passes (only for single channel)
- Preview: 01000
- 5 characters long

Buttons: OK, Cancel

- The '**Preview**' should now show the new '**Start value**' e.g. 1000 in the specified format which in this case is '5-digit decimal' so it displays as '**01000**'.
- Click the '**OK**' button to save your changes.
- The '**Incremental Repository**' window should now display your changes as follows....



The 'Incremental Repository' window shows a table with the following data:

| No.  | Description                      | Current Value | Preview | Increment | Min  | Max   | Format | Increment at End |
|------|----------------------------------|---------------|---------|-----------|------|-------|--------|------------------|
| INC1 | Serial number - 5 decimal digits | 1000          | 01000   | 1         | 1000 | 99999 | %05d   | YES              |

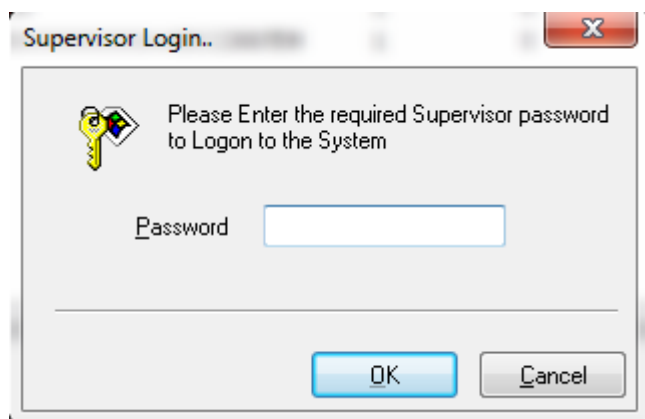
- So the next time a programming script is executed which uses the '**Incremental Source**' defined as '**INC1**', the repository will generate a value of '**1000**' but will pass this in a 5-digit decimal format as '**01000**'.
- Click the '**Close**' button to close the '**Incremental Repository**' window.

## 2.5 Deleting an 'Incremental Source'

If you need to remove / delete an existing '**Incremental Source**' from the '**Incremental Repository**' for any reason, then this is possible but the function is protected by an 'admin password' to protect against accidental deletion.

### Instructions....

1. Open the '**Incremental Repository**' window
2. Tick the 'Can modify' check box
3. Click the relevant '**Incremental Source**' which you want to remove.
4. Click the 'Remove' button
5. You will then be asked to log in using the 'Supervisor password' (default password: equinox)



6. The selected '**Incremental Source**' will then be removed from the list.