Day 48 – Intelligent Port naming using patterns

Testing Challenge:

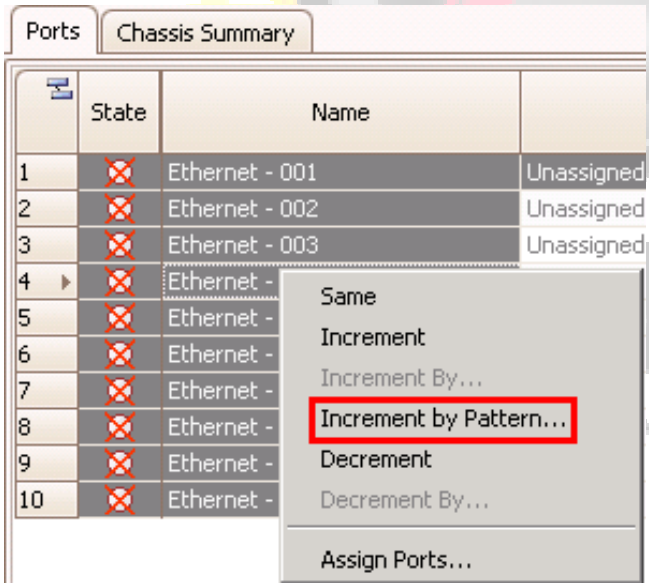
When performing system tests or large port count tests, test engineers need to group ports in various categories for easy tracking, such as odd and even ports, L2 and L3 VPN ports, VLAN ports, etc. Port names can be used to represent the grouping. Therefore, test engineer needs a flexible and scalable way to name many ports quickly.

IxNetwork 5.40 Solution:

IxNetwork 5.40 provides a pattern increment option to address this use case. Pattern increment option supports 2 types of patterns which can be used separately or combined together to achieve various port naming in one operation.

How to do this?

1. **Go to Test Configuration -> Port Manager. Highlight the ports you want to name and right click to select "Increment by Pattern" to bring up pattern increment window.**



2. Pattern increment support 2 types of patterns.

Pattern 1 - $[seed:width, step, repeat:reset]

Seed – starting value of the pattern

Width – length of start value. It is used to format seed to desired width.

Eg. If start value is 1 and width is 3, then it will be formatted as 001.

Step – Increment step from starting value.

Repeat – If repeat is x, then each value will be repeated x time before increment to next value.

Reset – If "reset" is added after repeat value x, then after x incremented values, the next value will be wrapped back to starting value and increment again. Please note the "reset" is used as string, not a number.

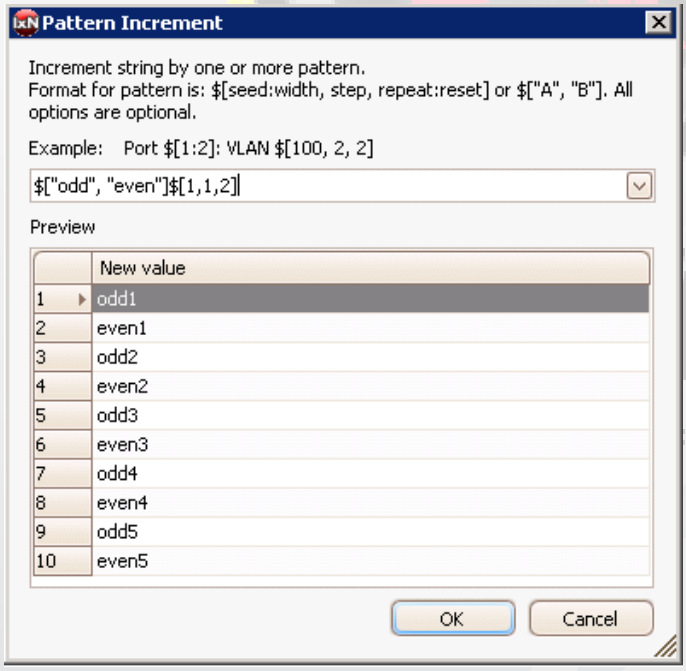
Please note that all parameters are optional except seed.

Pattern 2 - $["A", "B"]

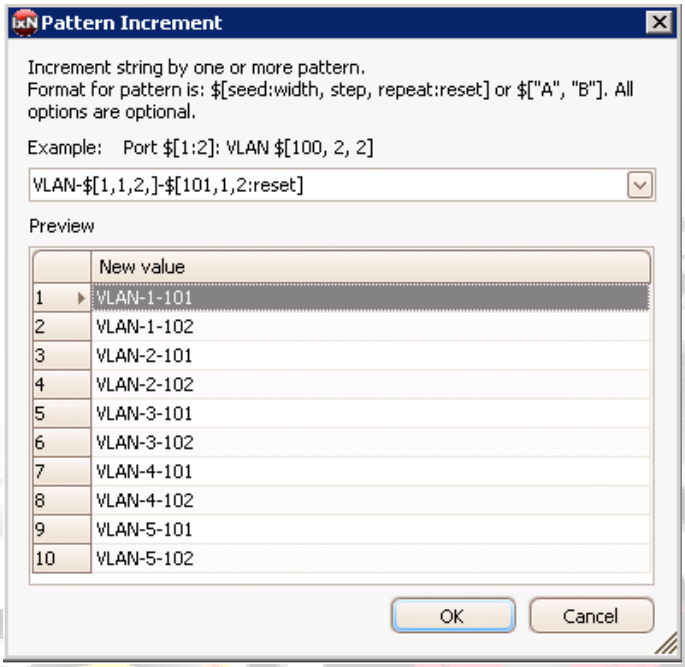
This pattern provides 2 interleaved values which can be combined with Pattern 1 to achieve increment for 2 different categories, such as odd and even.

Below are few examples.

a. Odd ports and event ports

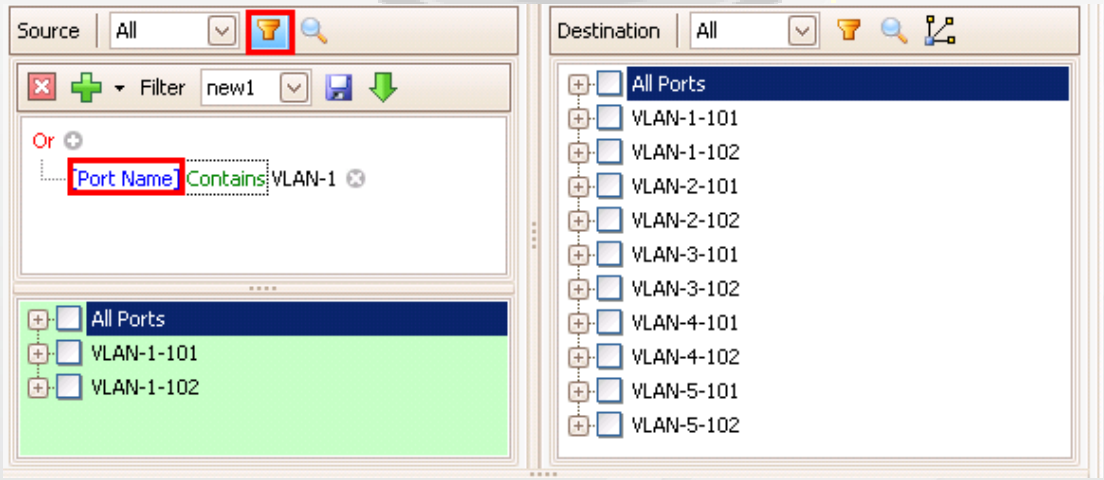


b. 5 VLAN groups with 2 ports per VLAN group – Use pattern 1 twice



3. With combination of these patterns, various port naming can be achieved.

4. The port name can be used later in traffic endpoint "Quick Select Nodes" to filter traffic endpoints to only interested ports. This is very useful in large port count test.



Conclusion:

With pattern increment, test engineers can groups ports into different categories easily with combined patterns to name them. This helps to not only identify the port easily, but also filter traffic source and destination endpoints quickly. These functions are extremely useful in large port testing. It avoids tedious work and save valuable test resource to reduced testing cycle.