SQL Server 2012 - SEQUENCE

SQL Server 2012 introduces the SEQUENCE object. Looking at the syntax it is very similar to how Oracle has implemented SEQUENCEs for many years. I believe that the SEQUENCE was introduced to aid in the transition of Oracle developers to SQL Server.

First off what is a SEQUENCE... A user-defined object that generates a sequence of numeric values.

To create a SEQUENCE you can specify one or more of the following options:

- Start
- Increment
- Min Value, Max Value
- Cycle / No Cycle – starts of when the Max value is hit or not
- Cache

The SEQUENCE is an alternative to IDENTITY. SQL Server has had the IDENTITY option for many years.

Here is an example of using a sequence:

Similar to an identity, but you have more control over it, and it can be accessed from multiple tables, and you have access to it prior to inserting it into a table.

There may be —gaps created when using a sequence.

- Other people / processes can use your SEQUENCE with you knowing it, this will cause gaps
- Rolled back transactions that ask for the NEXT VALUE and don't use it may cause gaps.

You should use a SEQUENCE Instead of IDENTITY When…

- —The application requires a number before the insert is run.
- —Sharing a single series of numbers between multiple tables or multiple columns within a table is needed.
- —The application must restart the number series at some point.
- —The application requires sequence values to be sorted by another field. The NEXT VALUE FOR function can apply the OVER clause to the function call.
- —You need to change the specification of the sequence, such as the increment value.

For more info on sequences, take a look at my presentation for SQL Saturday 166 in Olympia WA.