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Low Code No Code (LCNC)
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The Low-Code/No-Code Movement: More Disruptive Than You Realize

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https://www.forbes.com/sites/jasonbloomberg/2017/07/20/the-low-codeno-code-movement-more-disruptive-than-you-realize/?sh=70ebd127722a

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What is LCNC

Low-code/no-code (LCNC) development refers to an environment where **visual drag-and-drop applications** or similar tools allow individuals and teams to program applications **without a lot of linear coding**.

For example, a traditional way of creating a smartphone application involved a skilled professional engineer writing code. With low-code/no-code environments, virtual studios make it easier for less skilled programmers to simply choose visual icons and components of an application and drop them into the model.
https://www.techopedia.com/definition/33512/low-codeno-code-development-lcnc-development

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LCNC Benefits

Users see a user-friendly graphical user interface (GUI), through which they can marry components and third-party application program interfaces (APIs). Application builders can rearrange and repeatedly test modules until the app works as expected.

The growth of low-code/no-code platforms has proliferated due to a lack of skilled software developers and the need to improve turnaround time for development projects so business problems can be solved quickly.

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What does this mean?

- Application developers are scarce, and it takes very long to create a new application
- A developer is needed because he/she can code (write a computer program in a programming language)
- Turnaround times are notoriously slow because user testers cannot correct/improve apps on the fly
- Therefore, in theory, if everyone can code or coding is not difficult, everyone can develop an application
- LCNC is software vendors solution to enable non-coders to develop an application through a visual interface. Typically, a drag-and-drop interface.

Many of us can remember a time when we silently promised ourselves ***"One day I'm going to learn how to write a computer program"***

Maybe that time has come……..

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Can LCNC really turn anyone into a programmer?

- The answer is yes, and it makes perfect sense. A programming language is finite
- Developing a complete application with LCNC is, however, still difficult for non-coders
    - Someone needs to connect your software to data sources (ODBC connection)
    - Someone still needs to know where to get the required data (Which tables and fields to import)
    - You still need to know how to achieve the app's objective (which commands/functions to use)
- However, LCNC refer to coding, not data access
- Software with LCNC capabilities flourish in an environment where data is made available to users by technical specialists and non-coders use that data to develop specific applications such as analytics
- LCNC is driven by software vendors because it sells more licences to more users

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LCNC – Practical example

- Risk and Compliance department wants to continuously monitor the capture of Inventory Movements after hours
- The data will be analysed in Arbutus and summarised information will be integrated into BarnOwl GRC
- The required Inventory Movement data has been extracted from the organisation's ERP
- Traditionally, this analytic would require an Arbutus procedure written in Structure Query Language (SQL) code
- Using Arbutus version 7, it is now possible to achieve the same objective the software's Workflow functionality

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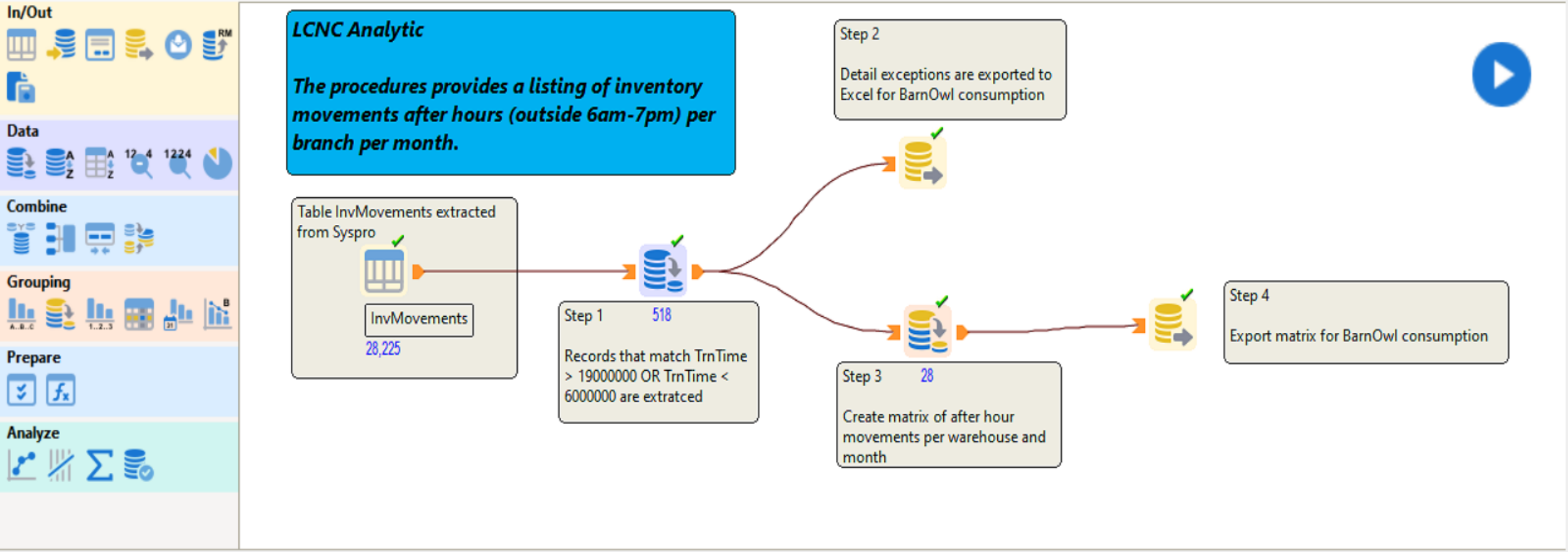
Traditional Code

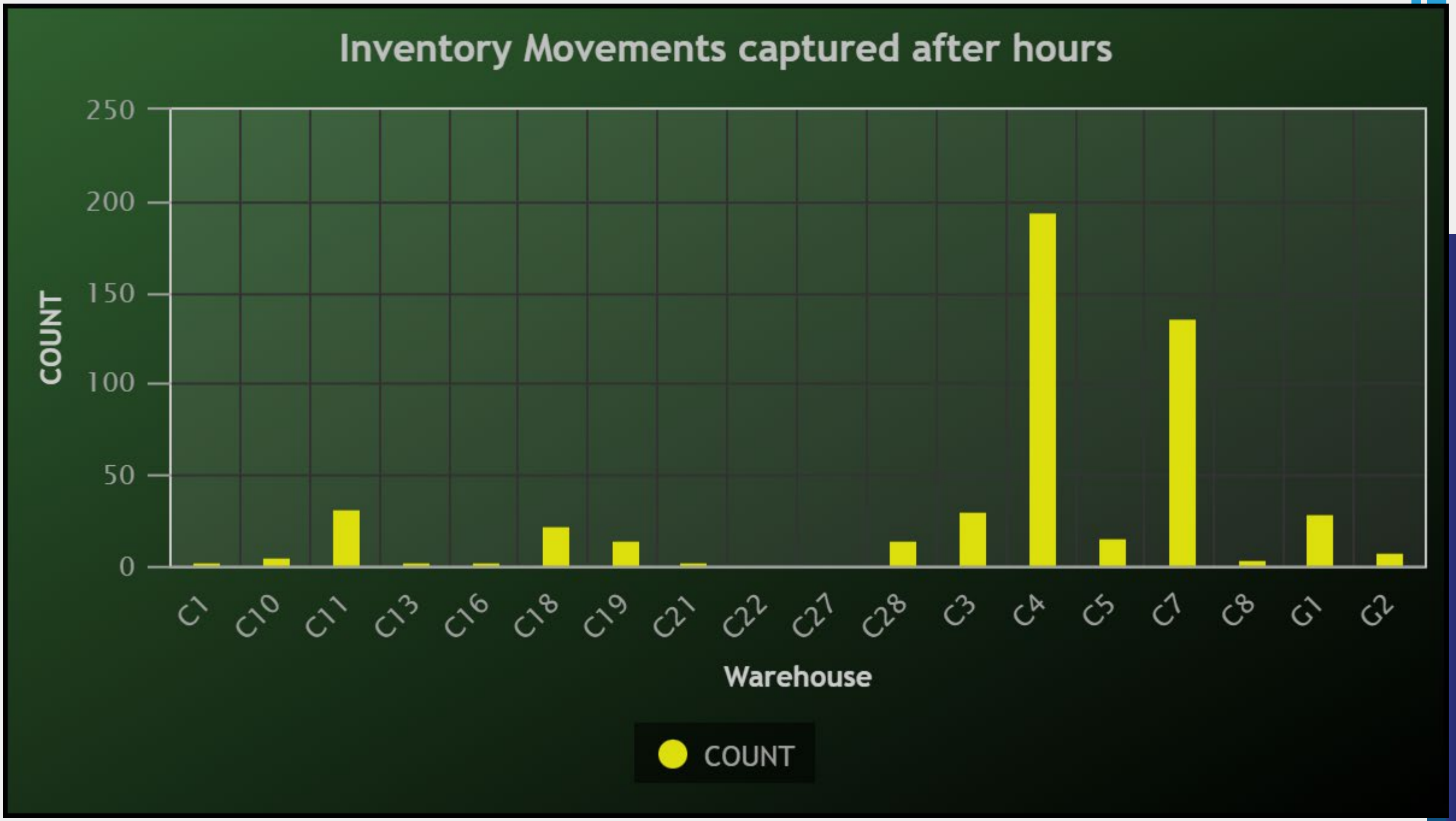
```
comm: The procedures provides a listing of inventory movements after hours (outside 6am-7pm) per branch per month.

SET SAFETY OFF

CLOSE PRI ALL

comm - Step 1. Extract after hour movements

OPEN InvMovements

SET FILTER TO TrnTime > 19000000 OR TrnTime < 6000000

SET FOLDER /Inventory

EXTRACT RECORD TO InvMvt_after_Hours open

comm - Step 2. Export after hour movements to Excel for BarnOwl consumption

EXPORT EXCEL TO "Inventory_Movements_after_Hours" TABLE InvMvt_after_Hours FIELDS ALL

CLOSE PRI ALL

comm - Step 3. Create matrix of after hour movements per warehouse and month

OPEN InvMvt_after_Hours

SUMMARIZE ON Warehouse TrnMonth FIELDS TrnValue SUMMTYPE SUM AS 'SUM_TrnValue' PRESORT TO "InvMvt_after_hours_per_Warehouse_monthly" OPEN

comm - Step 4. Export matrix for BarnOwl consumption

EXPORT EXCEL TO "Inventory_Movements_after_Hours_matrix" TABLE InvMvt_after_Hours FIELDS ALL
```

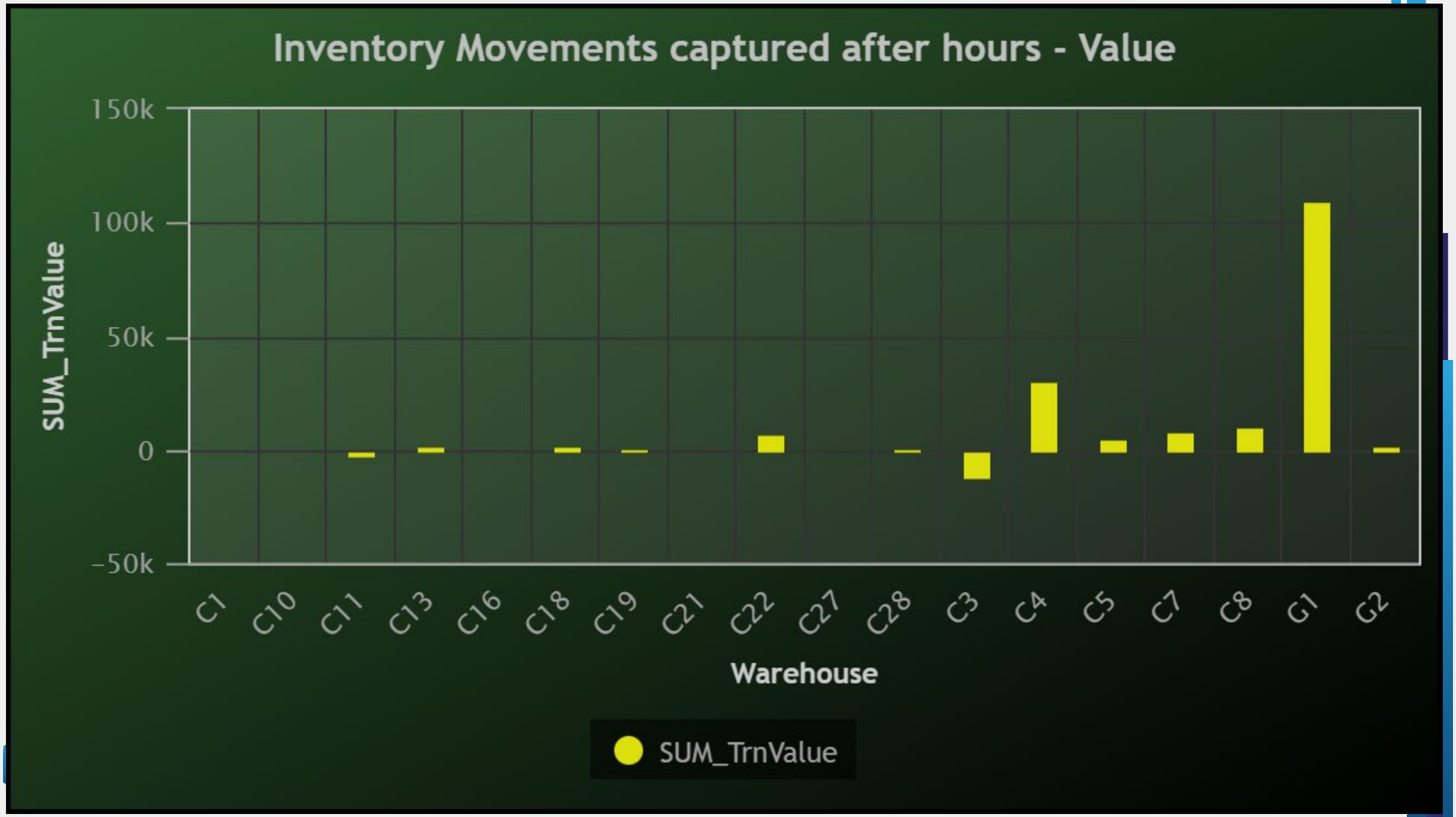
Command Log | InvMvt_after_hours | InvMvt_after_hours_per_Warehouse_monthly | InvMvt_after_hours_workflow



Current Log

```
@ SUMMARIZE ON Warehouse TrnMonth FIELDS TrnValue SUMMTYPE SUM AS 'SUM_TrnValue' PRESORT TO "#120"
00:48:13 - 05/26/2022
Presorting Primary data file.
  28 records produced
@ SET TABLE 120
@ EXPORT EXCEL TO "Inventory_Movements_after_Hours_matrix" TABLE Matrix FIELDS ALL
00:48:13 - 05/26/2022
  28 records produced
  Output to C:\BetaSoftware\BTC\Inventory_Movements_after_Hours_matrix.xlsx is done
```


Inventory Movements captured after hours
250
200
150
100
50
0
COUNT
C1
C10
C11
C13
C16
C18
C19
C21
C22
C27
C28
C3
C4
C5
C7
C8
G1
G2
Warehouse
COUNT


Inventory Movements captured after hours - Value
150k
100k
50k
0
-50k
SUM_TrnValue
C1
C10
C11
C13
C16
C18
C19
C21
C22
C27
C28
C3
C4
C5
C7
C8
G1
G2
Warehouse
SUM_TrnValue

LCNC – Conclusion

- LCNC is real. Zero knowledge of coding language is required
- LCNC will not be used by experienced programmers. Advanced coding is still required for:
  - Import and preparing of source data
  - Running Group and Loop procedures
  - Creating advanced conditional computed fields
  - Setting environment and application variables etc.
- If adopted correctly with a positive attitude, LCNC technology can have a significant impact on the application development life cycle
- LCNC is fun! For many of us it is like getting a key to a room we couldn't enter before
- It is the future of app development. All major software developers are investing in LCNC

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THANK YOU

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