

# SAP EWM

ALTERNATE UNIT OF MEASURE

## CUSTOMER CASE STUDY

SAP EWM SOLUTION  
PAPER

## MAINTAIN MULTIPLE AUOM BY PART AND PICK

Preferred AUOM by warehouse  
number

## MAINTAIN PACKAGED WEIGHT, DIMENSIONS AND VOLUMES AT ONE PLACE

in Material master as part of Alternate  
Unit of Measure (AUOM)

**Genius Business Solutions Inc.**

A man with glasses, wearing a dark blue suit, a pink shirt, and a patterned tie, is sitting on a blue metal bench outdoors. He is smiling and looking towards the camera. The background is a blurred outdoor setting with trees and a blue structure.

GENIUS BUSINESS SOLUTIONS

# MAXIMIZE ROI OF YOUR SAP WMS

WRITTEN BY SHIVAJI PATIL,  
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SOLUTIONS

THIS DOCUMENT OUTLINES BUSINESS REQUIREMENTS FROM SERVICE PARTS WAREHOUSING OPERATIONS DIVISION REGARDING MAINTENANCE AND USAGE OF WEIGHT AND VOLUME DATA FOR PREPACKAGED AND UNPACKAGED PARTS AND CHALLENGES IN HOW THAT DATA IS UTILIZED IN ALL WAREHOUSING PROCESSES INCLUDING INBOUND, OUTBOUND, SLOTTING, PACKAGING, ETC. IT OUTLINES SOME OF THE LIMITATIONS OF STANDARD SAP EWM FUNCTIONALITY AND SOLUTION TO ADDRESS THESE LIMITATIONS

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S A P E W M

# ALTERNATE UNIT OF MEASURE

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Service parts division at XYZ Company is implementing SAP EWM as part of Parts system solution. One of the critical business requirement is ability to maintain packaged weight and volume for service parts, which could be significantly different from unpackaged parts weights and volume due to packaging used for service parts. These values also could be different in different geographical locations.

Additionally, it is critical to use this information in all warehousing processes such as inbound storage bin selection, outbound pick container selections, slotting, etc. for efficient warehousing processes and resource utilization.

## PROBLEM DEFINITION

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Key business requirement from Parts warehousing organization is to have ability to maintain packaged weight and volume for service parts, which could be significantly different from unpackaged parts weight and volume due to packaging used for service parts. Also, it is possible that in different geographical regions, service parts are packaged in different quantities and different packaging materials. This requires ability to maintain multiple packaged weight and volume for a part based on different distribution centers.

In SAP, this information can be maintained in material master Alternate Unit of Measure in ECC (Enterprise Central Component) and is transferred automatically to EWM product master (Extended Warehouse Management). Alternatively this information can be maintained in EWM Packaging Specification master Data.

It is important to have single source to maintain this information.



If this information is maintained in both Product master and Packaging Specification in EWM, it could easily get out of sync causing incorrect system behavior.

Also it is important to use this information consistently in all warehousing processes such as inbound storage bin selection, outbound pick container selections, slotting, etc. for efficient warehousing processes and resource utilization.

As a standard EWM design, information from Base Unit of Measure from Product Master is used across all warehousing processes. This behavior was not sufficient to enable warehousing processes for parts business as packaged weight and volume is different than unpackaged weight and volume maintained in base unit of measure for product master.

During first EWM implementation, it was found out that EWM uses information from Product master and packaging specifications differently based on different scenarios.

In production environment, since storage bin capacity is calculated based on base unit of measure, system proposes to store more material in storage bin than what could be stored physically. This can result in excessive number of manual overrides, slowing Putaway operations considerably for any warehouse. This issue can become very critical as more inventory is moved from one warehouse to other warehouse.

For Inbound process, when selecting right storage bin, information from Packaging Specification is used first and then from base unit of measure (Not from AUOM), but when in outbound process, to determine picking container size, information from only Product master is used.

In slotting process, where right storage bin size and bin location is predetermined based on forecast for a part, weight and volume information from packaging specification is used when OWHT condition is maintained in packaging specification.

In Outbound process, when it is necessary to pick from prime and reserve area based on picking quantity, system uses Packaging Specifications when OWHT condition is maintained in packaging specification.

As we have two places to maintain packaged weight and volume, and EWM uses both sources based on different business scenarios, it causes inefficient data maintenance and sub optimal system performance.





## SOLUTION APPROACH

GBSI - SAP EWM AUOM



GBSI EWM team pursued SAP to correct this system behavior. Use of Alternate Unit of measure was meeting data maintenance requirements more closely compared to packaging specification but was not enough for process efficiencies.

EWM IT team created SAP OSS message and also discussed this issue with the Customer Innovation team, SAP team and SAP EWM product owner during SAP Team onsite visit.

EWM IT team was able to get SAP's help on utilizing Alternate Unit of Measure (AUOM) in Inbound process. This required multiple OSS note corrections identified in Appendix of this document.

During testing of OSS notes, it was found out that only using weight and volume information from AUOM will require SAP to provide multiple OSS notes for Slotting and Internal warehouse task creation.

Also it was not possible to use information from AUOM during internal movement of handling units within warehouse in transaction /SCWM/ADHU

The existing solution which was live in at a certain customer location needed huge efforts to correct following data:

- Correcting existing packaging specifications for more than 20000 parts
- Correcting capacity usage of more than 25000 bins with stock

While EWM IT team was pursuing this issue with SAP OSS, our team was also looking internally for an unconventional solution which could work more consistently without any significant impact to existing live EWM unit and also will provide future scalable solution.

EWM IT team investigation of this issue resulted into identification of one BADI (/SCWM/EX\_HU\_BASICS\_PRODUCT) to provide best alternative solution and also utilize existing OSS note corrections for Alternate UOM from SAP.

This BADI enabled to overcome all of the above issues by keeping Product master and Packaging Specifications in Sync and creating Handling Units and warehouse tasks utilizing weight and volume data from alternate unit of measure. This BADI was verified with SAP OSS and also was endorsed by SAP as solution to move forward with.



# SOLUTION BENEFITS

GBSI - SAP EWM AUOM



This solution addresses business requirements and provides following business Benefits:

- User can maintain Packaged weight, dimensions and volumes at one place – in Material master as part of Alternate Unit of Measure (AUOM)
- Ability to maintain multiple AUOM by part and pick preferred AUOM by warehouse number
- No change to existing pack spec design for about 20,000 Packaging specifications. We can continue to use AUOM at product level in Pack Spec, hence keeping Pack Specs and AUOM data in sync as part of standard functionality
- We can continue to maintain Packaging Specification condition record 0WHT for Slotting and Internal warehouse tasks. New Handling unit creation reads data automatically from AUOM, which is used to determine right bin size during Putaway
- Existing Bin capacity usage is auto-corrected as soon as part is stored in bin or picked from bin, eliminating need to correct close to 25000 bins
- Elimination of custom development to change condition records for slotting
- Solution using standard EWM functionality widely used by other SAP customer base, so reducing need for more OSS note corrections in future

**“This Solution really helped us streamline our WM processes with SAP EWM with improved business results .”**

# ABOUT US

Genius BSI is a Global Software & Engineering consulting firm with headquarters in Moline, Quad Cities – Illinois, specializing in business management software in a wide range of industry domains .

The Company has earned expertise in business consulting in Supply Chain Management ( SAP SCM EWM, SPP, APO), Business Process Reengineering and Business management software implementations (SAP Business One, SAP SCM, SAP ECC) while serving local, national and global customers. GBSI also extends its service portfolio to Engineering Services and Staff Augmentation services.

Our unique expertise in Service Parts Management as well as Warehousing & Distribution domain sets us apart. The company has deep expertise in SAP SPM (Service Parts Management) & SAP EWM (Extended Warehouse Management) and PTC SLM.

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