

WAREHOUSE MANAGEMENT AND TRANSPORT EXECUTION FOR IBM i

RELEASE NOTES

2024

WMI AND TEI RELEASE NOTES

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Warehouse Management and Transportation Execution for IBMi Release Notes 2024

Introduction

Goals

This document outlines the new features and functionality included in the 2024 release of Warehouse Management and Transportation Execution for IBMi (WMi and TEi). Additional information on particular features is available in the WMi Online Help.

Intended Audience

The release notes are targeted to persons familiar with WMi functionality. System evaluators (prospects and partners), current WMi customers, and internal Manhattan Associates employees will benefit from this overview.

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Features and Changes

Putwall improvements

Work with Slots

An inquiry screen is provided for the putwall slots so the user can view the inventory that is already placed into the slots as well as the inventory that is destined to be put into the slots. This enables users to gain a holistic view of all slots associated with the putwall, thereby enhancing the efficiency and effectiveness of inventory management processes.

PM76W0 Work With Putwall Slots 3/08/24 08:55:04
Wh/Co/Dv : 10W

	From	To	Sort By
Slot ID	*	*	Default
Slot Type	*	*	N No
Putwall ID	*	*	N No
Putwall Type	*	*	
Work Resource ID	*	*	
Work Resource Type	*	*	
Assigned Slots Only : Y Yes			

F3=Exit F4=Prompt F5=Refresh F7=Save Profile F9=Display Profile
F12=Previous

MA A 05/051

Outbound Processing station support

The outbound processing station is now accessible for putwall packing, enabling users to carry out a range of post-packing operations on cartons that have been packed.

Putwall Packing - Fixed station

Putwall packing now offers a fixed station option, enhancing user experience by displaying additional transactional information such as 'To be packed units' and 'Packed units'. This enables more convenient tracking of packing activities, improving overall efficiency in warehouse operations.

Group Completion indication

Upon pack completion of a putwall group, users receive timely notifications via on-screen messages or alerts, eliminating the need for them to wait for inventory. This proactive notification system mitigates

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operational delays and enhances efficiency by keeping users informed in real time without the necessity of checking the putwall group maintenance screen.

Multiple shipment support for Inbound Appointments

WMi v2024 offers the functionality to associate multiple inbound shipments with a single inbound appointment. This feature simplifies the logistics process for customers handling multiple shipments within the same inbound appointment, eliminating the need for customizations or manual tracking through spreadsheets.

JSON Support for Interfaces

WMi has incorporated JSON message formats into both inbound bridging and outbound Interfaces. The JSON formats in inbound interfaces facilitate the seamless integration of data from external sources into WMi. Similarly, leveraging JSON in outbound interfaces enables WMi to transmit relevant data to external systems with ease.

Zone Balancing in Pick Location

During the non-bulk allocation from active or case pick locations, the need for a specific product from all the orders for the wave is allocated together. In peak season, when the demand for fast-moving items increases, the entire need for a specific product may be allocated from the same determination zone. This can result in congestion in the aisle and location.

To overcome this, warehouses are implementing mirrored zones or multiple zones with fast-moving items slotted. During allocation, they aim to distribute items across zones for each order. WMi v2024 provides the capability to distribute the total need across determination zones by defining the number of order lines of an item that can be allocated from a specific zone in one go. The system divides the order lines for a particular product into smaller groups and then considers one group at a time for allocation. For each group, the system loops through the determination zones to search for inventory, in a round-robin fashion.

This feature can be enabled for specific pick location determination types and the same can also be controlled at the wave level. The enhanced pick wave allocation for non-bulk items ensures a balanced distribution of needs across various zones, leading to a more equitable distribution of labor and reduced congestion in aisles and locations. This optimization maximizes resource utilization and enhances the efficiency of picking fast-moving items.

WMi – Manhattan Active WM Conversion Utility

WMi – Manhattan Active WM conversion utility helps in supporting the migration of WMi customers to Manhattan Active WM by moving the data stored in the WMi database to the Manhattan Active WM database. The data from WMi is fetched and the output file is generated as a CSV template. Then the GoActive tool migrates the data to Manhattan Active WM.

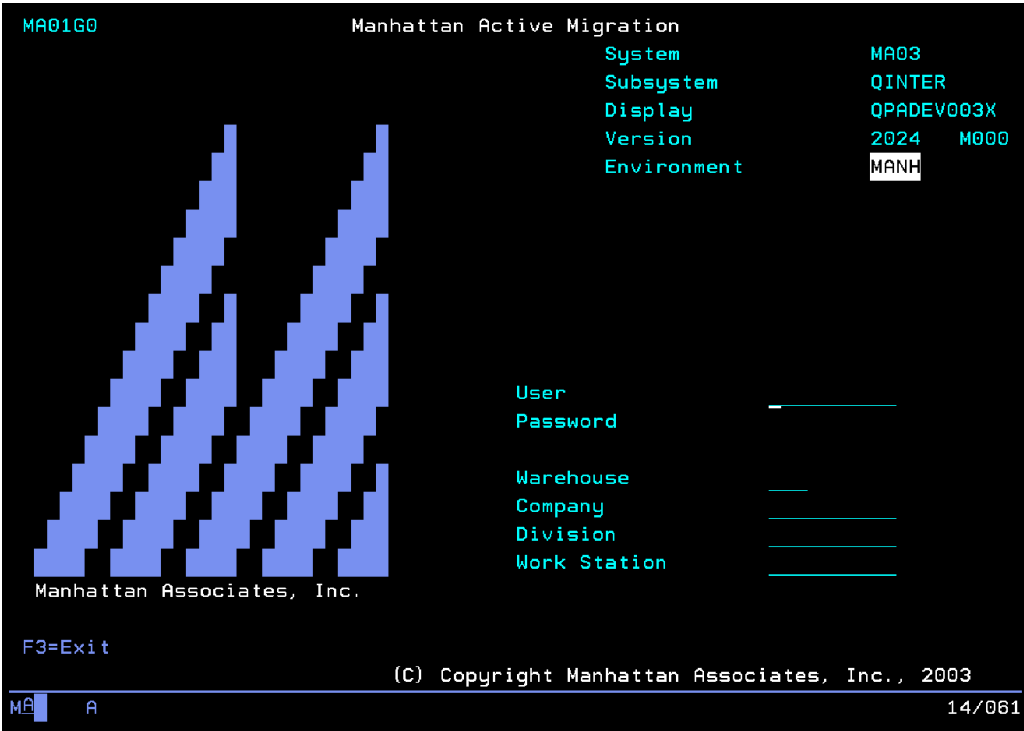
This utility is enhanced to have a user-friendly screen flow and fortified security features. It facilitates secure FTP transfer between WMi and PCs, accepting user authentication details such as user ID, password, IP address, IFS path, and file name ensuring efficient and reliable file exchange, adhering to professional data management standards.

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Licensing Implementation & User Authentication

The licensing mechanism is now deployed within this utility to manage and enforce usage rights and permissions. The system validates the license upon user login, and if an invalid license is detected, the user is promptly notified.

A login screen is available, facilitating user authentication and environment-specific validation upon login. Users can securely access the designated environment and seamlessly progress through the migration process.



Entity

Migration Hierarchy

This utility has the capability to define the migration hierarchy for entities, specifying the sequence in which they should be migrated. Furthermore, users can configure dependencies, ensuring that master entities are migrated only after their dependent entities have been successfully migrated, thereby optimizing the migration workflow.

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```

MA08M0                                Data Migration Master Maintenance                                3/12/24 02:04:06

Type Option, Press Enter
2=Edit  3=Copy  4=Delete  5=Display  6=List Entities  7=Fetch CSV Data
8=Reset Status

      Hierarchy
Opt Seq  Name      Description      Data Fetch Status
      UNPS  SUC    ERR
—  10  ENTITY0    ENTITY MIGRATION - LEVEL 0      3    2    0
—  20  ENTITY1    ENTITY MIGRATION - LEVEL 1      9    2    0
—  30  ENTITY2    ENTITY MIGRATION - LEVEL 2      6    1    0
—  40  ENTITY3    ENTITY MIGRATION - LEVEL 3      0    0    0
—  50  ENTITY4    ENTITY MIGRATION - LEVEL 4      0    0    0
—  60  ENTITY5    ENTITY MIGRATION - LEVEL 5      0    0    0

Bottom

F3=Exit  F5=Refresh  F6=Create  F8=Resequenece  F12=Previous  F13=Repeat

```

Rules Migration

To effectively migrate boolean WMi rules to corresponding Manhattan Active WM rules, the boolean rules need to be translated into a single 'condition value' expression. The 'condition value' expression is an attribute, present in the rule condition entity, that comprises a nested object expression containing logical operator and condition as arguments. This comprehensive expression encapsulates the selection rules corresponding to a given criterion in Manhattan Active WM.

The utility has been improved to construct the 'condition value' attribute based on the configured rules in WMi. Subsequently, this attribute is included as part of the migration data in the .csv files sent to Manhattan Active WM.

Supported Entities

The migration of the below-mentioned entities is supported.

- Barcode format
- Batch master
- Condition code
- Container size
- Container type
- Location
- Location capacity usage
- location count info
- Location item assignment
- Location size type

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- Location zone
- Putaway priority
- Task group and eligibility

General Enhancements

Make Cart of Cartons with System Assigned Tasks

During batch picking, the creation of the cart of cartons is now facilitated through the assignment of system-assigned tasks. The users are provided with the option to streamline the process by scanning blind carton labels instead of the individual carton labels. This scanned barcode is subsequently linked as a cross-reference to the corresponding cartons. Upon completion of picking and packing tasks, users can conveniently scan the cross-reference barcode on the cartons to print the shipping labels.

This feature has made picking into the Cart of Cartons more dynamic with system assigned tasks. This innovative approach eliminates the need for users to physically carry carton shipping labels during cart creation, thereby reducing paper consumption. Such optimization not only enhances operational efficiency but also aligns with contemporary warehouse sustainability initiatives.

Retry on Record Lock

When two users access the same record simultaneously, they have the option to retry the operation after a short delay, typically after the conflict has been resolved. Users can avoid contention and maintain data integrity within the system by retrying the operation after a brief interval. This feature enhances user experience by providing a smooth and efficient workflow, even in scenarios where multiple users access the same record concurrently.

SKU Attribute Substitution for Work Orders

The SKU attribute substitution feature is extended to work orders. If the requested component with a certain SKU attribute is not available, users can conveniently choose a component with a variant SKU attribute and continue picking without any interruptions. This ensures a smooth workflow without any issues.

During the execution of replenishments from case pick to active locations, if a SKU attribute is substituted, the system promptly updates pick tasks with the new attribute. This prompt update of pick tasks releases held dependent pick allocations, ensuring efficient warehouse operations.

Selection screen for Parcel Manifest Inquiry

The filter screen for the parcel manifest inquiry option allows the user to select a subset of parcel manifests to view on the parcel manifest inquiry screen as desired. This provides flexibility, ease of use, and efficiency by allowing the warehouse personnel to narrow down to the desired parcel manifest entries swiftly.

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Search by Item barcode

The “Work With transactions” is enhanced with the capability to filter the data based on the item barcode. This functionality facilitates efficient retrieval of specific entities by enabling users to swiftly identify items through barcode scanning, eliminating the necessity for manual data entry.

MHE Configurable JSON/XML Improvements

Nested aggregates within the configurable MHE JSON/XML message formats are now supported. When an import MHE message containing nested aggregates is received, the import message processing will be invoked several times for each parsed level. For example, if the import message contains a JSON Array with 2 cartons and each carton has 2 SKUs, and each SKU has 2 attributes, there will be 6 records after parsing. The import message processing will be called 6 times at each level of Carton, SKU, and SKU attribute.

In cases where there are multiple files involved, users can opt to override the generated query from the configured format with a custom query using the Override Query option. This functionality is accessible for both Import and Export MHE messages.

This significantly improves integration capabilities with various MHE vendors while minimizing the need for extensive modifications. Additionally, it leads to shorter implementation timelines.

Add Miscellaneous Fields in Key Files

When customers seek to personalize their workflow features, they utilize miscellaneous fields. However, customers pursuing extensive customizations may exhaust these fields. To accommodate this demand, the number of miscellaneous fields in the major WMI files is now increased.

Transportation Execution Features and Changes

FedEx Processing

Transition to New REST Tracking API

The FedEx Tracking API, reliant on SOAP APIs for fetching tracking details, has undergone a transformative shift. FedEx is retiring SOAP APIs next year and introducing new REST APIs. To align with this advancement, TEi has implemented changes to exclusively use REST APIs for Tracking. The FedEx APIs support the OAuth 2.0 (bearer token) authentication method to authorize API requests with FedEx resources.

USPS Processing

Hazmat changes

TEi v2024 introduces support for the latest changes implemented by the United States Postal Service (USPS). USPS has introduced new IMpb service type codes (STC) and extra service codes (ESC) within tracking barcodes for packages containing hazardous materials or dangerous goods. Additionally, to

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enhance tracking and compliance, 2D barcodes are now incorporated on shipping labels for domestic mail pieces with hazardous materials.

Ground Advantage

In response to the USPS Ground Advantage initiative, TEi now features a new carrier service, USPS Ground Advantage. In this transition, TEi has been updated to replace the Service Type Codes (STCs) originally associated with First-Class Package, integrating the new STCs specific to Ground Advantage. Expired STCs have been systematically removed from the TEi system.

DHLeC Processing

DHLeC Adaptations for USPS IMpb and Parcel Select Enhancements

Responding to the recent USPS adjustments introducing new IMpb STCs for the transportation of hazardous materials, DHLeC has implemented parallel modifications.

TEi has been updated to incorporate these changes, including the integration of new STCs in the tracking numbers for First Class Package, Priority Mail, and Parcel Select services featuring a HazMat SKU. Improvements have been made to support the new IMpb banner text when shipping dangerous goods through these services. To align with the latest requirements, Intelligent Mail matrix barcodes (2D) will be added to Dangerous Goods shipping labels. In parallel, USPS's consolidation of Parcel Select Lightweight with Parcel Select prompted DHLeC to replace the STCs and service class text with that of Parcel Select services. The release also encompasses updates to support the latest specifications for applying Non-Qualified Dimensional (NQD) surcharges.

Canada Post

Expedited Parcel Plus

Canada Post has introduced Expedited Parcel Plus. Tailored for weekend delivery, this contract-only service mirrors the structure of our existing Expedited Parcel service, with a few minor changes. To integrate this new offering, TEi has been updated to include support for Expedited Parcel Plus, providing shippers with an enhanced and flexible shipping solution. Additionally, modifications have been made to extend eligibility for the Carbon-Neutral statement to the following services: Expedited Parcel, Expedited Parcel Plus, and Domestic Regular Parcel.

Supporting Documents

The following documents are available to help with the upgrade process. Contact Manhattan Support Services to receive a copy.

- **Instructions for Loading the Release:** This document contains all instructions required to install version 2024 of TE. Please read through the instructions carefully.
- **Menu Document:** This document shows all menus changed or added with this release.
- **Data Records Document:** This document shows all data records added, deleted, or changed in various files (e.g. security checkpoints, job submission parameters) to support new

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processing options. The upgrade process will make the necessary adjustments to the data so that manual change will not be required.

- **Files Document:** This document shows all files changed, added, or deleted with this release.
- **Programs Document:** This document shows the new programs added to support new functionality and old programs deleted to remove obsolete processing.

Appendix

Database and Program Updates

A document that contains all the updates (additions and deletions) related to the database and programs is located here.