

# Retek® Data Warehouse 10.0



## Release Notes



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### **When contacting Customer Support, please provide:**

- Product version and program/module name.
- Functional and technical description of the problem (include business impact).
- Detailed step by step instructions to recreate.
- Exact error message received.
- Screen shots of each step you take.



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## Overview

The RDW 10.0 is a General Availability release that encompasses significant technical and functional enhancements as compared to the RDW 9.1 release. RDW 10 incorporates the necessary changes needed to maintain integration with the Retek Merchandising System, given the significant foundation changes made in the RMS 10.0 release. It also includes changes required to support an interface with other Retek 10.0 products, including Retek Top Plan, Retek Sales Audit, Retek Customer Order Management and Retek Invoice Matching. In addition to the functional changes made, the architecture of the RDW version 10.0 has been overhauled to make the Retek Data Warehouse “Database Independent”.

## Functional Enhancements

The following features are new to the RDW for version 10.0:

### Local Currency Reporting

Enhancements for local currency reporting focused on holding both local currency and primary currency in such a way as to allow for a view of actual sales in the currency that it was sold, while also allowing for sales reporting in primary currency. This extended use of local currency was functionally grounded in the need to provide a complete use of RDW and all of its reports to client personnel, regardless of where they are located or for which locations they are responsible. Previous local currency reporting was done through currency conversions performed “on the fly” and limited to a small number of base reports. The current process provides an extension of the majority of currency-valued measures into both primary and local currency for use in the base product. Currency-valued measures sourced from Top Plan remain in primary currency only for this 10.0 release.

### Regionality

The concept of regionality focuses on the ability to group a subset of locations with a category or categories, and assign the group to specific roles or functions within the company. These roles need to be defined within RMS (or a source system) to be used within RDW. An RDW user would be able to filter a report by their role and have the resulting report would be contain data for only the categories and locations assigned their role.

### Virtual Warehouse

As part of the Multi-Channel functionality delivered in RMS 10.0, virtual warehouses have been added as locations with a unique location type identifier. Within RDW, virtual warehouse locations will be identified by their location type and will have the same functionality as Warehouse typed locations. RDW 10.0 provides the ability to view inventory as held at a virtual warehouse.

### Flexible Segmentation

RDW 10.0 has enhanced the segmentation functionality as it pertains to Recency, Frequency, Monetary and Profitability reporting, through the ability to segment customers for a subset of product and/or organization levels. Through the selection of filter criteria, segmentation can be performed on smaller sets of data, as opposed to at the company level. Additionally, the user can determine the number of segments that are desired to be returned.

### Item Differentiators (Diffs)

RMS differentiators (difs) and their diff components have been incorporated into RDW. Diff components allow for the definition of a 2-part Diff, which can be shown as one entity ('30 x 32') or two separate components ('30' and '32'). These changes were incorporated into the RDW to allow for extended flexibility in product analysis through Diffs.

### Market Data Analysis enhancements

The ability to analyze the "Opportunity Gap" for a product as viewed in the context of market data was added to the RDW 10.0 release. Opportunity Gap is defined as the variance between the market share for a particular category and the overall market share for all categories combined. Additionally, an "As of" date, which indicates the most recent week of market data available, has been included in this release.

### Item-Supplier-Country- Location relationship

Within RMS significant changes were made to the Supplier dialog, allowing for storing detail down to the Item-Supplier-Country-Location level. Within RDW, changes were made to accommodate the view of Cost at the Item-Supplier-Country Location level, and the ability to identify primary supplier as designated at this lower level. This changed primary supplier reporting, which previously pulled information for the primary supplier as stored at the item-supplier level. References to Primary Supplier in RDW 10.0 refer to the primary supplier at the item-supplier-country-location level. Cost in RDW 10.0 will refer to cost for the primary supplier as held at the item-supplier-country-location-level.



## Supplier and Location updates

The following changes were made to enhance the supplier and location functional areas.

- **Total Linear Square feet.** An attribute was added at the location level to identify the Total Linear Square feet attributed to a store.
- **VMI Supplier.** An attribute was added at the supplier level to identify whether the supplier was associated with Vendor Managed Inventory.
- **Out of Stock by Primary Supplier.** Functionality was added, in conjunction with the enhanced item-supplier-country-location relationship, that allows to RDW to provide a few into the Out of Stock situations by supplier. Out of Stock is quantified as an occurrence of zero on hand at an item-location level.
- **Receipts by Supplier.** In conjunction with the enhanced item-supplier-country-location relationship, receipt reporting functionality was extended to provide visibility into receipts by supplier as part of the supplier compliance capabilities of RDW.
- **Supplier Invoiced Cost.** Visibility was added in RDW to view supplier cost, as billed on an invoice (and stored in ReIM), against owned cost (as stored in RMS).

## Transfer to/from detail

This release provides visibility into the locations from which transfers are being received from or shipped to, via an extension of the transfer detail.

## Weeks of Supply Flexibility

RDW 10.0 provides the end user with the flexibility to determine the number of weeks to average when calculating the weeks of supply measure.

## Enterprise Integration

RDW 10.0 release architecture supports an interface with the Retek Merchandising System, Retek Top Plan, Retek Sales Audit, Retek Customer Order Management and Retek Invoice Matching. While maintaining a full integration with these applications, it is also capable of being implemented as a partially integrated, or fully standalone module.

## Technical Enhancements

With version 10.0, important architectural changes have been made to RDW. The core of the new RDW architecture involved encapsulating the RDW Extract – Transform – Load (ETL) into a framework separate from a specific database. This was accomplished by writing the RDW ETL code using a new framework. This new framework provides an environment and software infrastructure for the development and deployment of high performance business intelligence applications that process large volumes of data. It provides performance and scalability for high-volume business intelligence applications running on multiprocessor systems and makes use of parallel computing technology.

Changes made to the architecture have affected the following data base elements:

- All Dimensional triggers have been removed
- All Dimensional Modification (MD) tables have been removed
- All Atomic (AT) tables have been removed
- All Restart and Recovery objects have been removed from the RDW side.
- All RDW packages and procedures have been removed.

**Note:** DWI fact related database objects remain unchanged.

- All Pro\*C batch architecture and components on the RDW side have been removed and replaced with the new RDW ETL components. Refer to the Operations Guide and RIB-ETL Programmers Guide for more information.

Additionally, RDW 10.0 was developed using MicroStrategy version 7.1.4. Please refer to the Front-End features guide for more information.

## Software requirements and configuration matrix

The RDW 10.0 Configuration Matrix shows the currently supported configurations at the time of release. If a required configuration that is not supported, verify with Retek Customer Support to see if the configuration is now supported.

Database*	Hardware Platform /Operating System (Target Database Server)**	Hardware Platform /Operating System (Source Database Server)	Load Server	ETL tool (binary compiled files only for each hardware platform and operating system for database specified)
IBM DB2 Universal Database - Extended Enterprise Edition 7.2 (32-bit)	AIX 4.3.3	Optional interface with RMS 10.0, which includes the Data Warehouse Interface (DWI) environment, use guidelines recommended by RMS documentation. If standalone source, no server requirements but must follow API guidelines.		RIB ETL 1.7 for DB2 on supported hardware platform.
NCR Teradata V2R4.0 or R4.1	WorldMark 5xxx series – UNIX WorldMark 4xxx series – UNIXS2x series – UNIX	Optional interface with RMS 10.0, which includes the Data Warehouse Interface (DWI) environment, use guidelines recommended by RMS documentation. If standalone source, no server requirements but must follow API guidelines.	Sun Solaris 8 HP-UX 11i AIX 4.3.3	RIB ETL 1.7 for Teradata on supported hardware platform. The RIB ETL application will be on the load server along with the Teradata load utilities.

Database*	Hardware Platform /Operating System (Target Database Server)**	Hardware Platform /Operating System (Source Database Server)	Load Server	ETL tool (binary compiled files only for each hardware platform and operating system for database specified)
Oracle RDBMS Enterprise Edition with Partitioning Option 9.0.1.2 (64-bit)	Sun Solaris 8 HP-UX 11i AIX 4.3.3	Optional interface with RMS 10.0, which includes the Data Warehouse Interface (DWI) environment, use guidelines recommended by RMS documentation. If standalone source, no server requirements but must follow API guidelines.		RIB ETL 1.7 for Oracle on supported hardware platform.

**Notes:**

\*Review the database documentation for minimum guidelines and requirements.

\*\* Other configurations may exist call Retek Customer Support for currently available configurations. Future availability will depend on demand. Testing required prior to support.

\*\*\* HPUX 11i is available upon request.

Other software requirements for the data warehouse server include:

- MicroStrategy 7.1.4
- RDW Web 2.2
- Oracle Pro\*C Precompiler 9.0.1 (on source server only)

## Known Limitations and Issues of RDW version 10.0

### Item Tracking level

Within an Item Family, a tracking level must be defined. The tracking level determines whether the Line, Line Extension or Variant will be the level at which sales, inventory, pricing and most other transactions will occur. A given Item Family can only have 1 tracking level. If the tracking level is determined to be at the variant level for the Family, all items within the family will have a tracking level of variant. The ability to drill through the new Item family as well as into the associated merchandise and organizational hierarchy is considered a required functionality. It is understood that transactional information will not tie out across these levels as roll-ups are performed at increasingly higher levels of the product hierarchy. For example, given a class containing 100 items, in which 25 are tracked at the line level, 25 at the line-extension level and 50 at the variant level, when sales are totaled at the variant level, you will receive sales for only the 50 items tracked at the variant level. Rolling sales up to the line extension level will provide you a total sales value for 75 items and rolling up to the next level, line, will provide you sales totals for all 100 items.

### Item List

In order for an item list to provide functionality with RDW they must include only tracking level items. An item list that is comprised of non-tracking level items will not return data when used in RDW. (See note above regarding Item Tracking Level for more information).

### Competitor Pricing – multiple children to a parent item.

While RMS competitive pricing lists allow for multiple “child” items below the tracking level to be shopped for a given location–day, RDW is able to hold only one “child” below the tracking level for a given location–day. The reason for this limitation centers on the price being held at the tracking level and the need to reconcile one competitor price to one owned location price. RDW will take the competitor pricing record tied to the RMS sub-transaction level item that is designated as the primary sub-transaction level item. There is one known defect with this functionality: RDW PI#53937, RDW’s competitor pricing trigger, is not working properly. This is because only items at the tracking level and/or items below tracking level, but where `primary_ref_item_ind = 'Y'`, should be captured for competitor pricing records.

### Competitor Pricing – historical deletion of source data.

While RMS allows competitor pricing records to be deleted, RDW’s ETL code will not delete the corresponding fact record in RDW. The client will need to update the record in question, or insert a new record for a later day to represent the corrected competitor price fact. If a record is deleted and not updated, the deleted price would be recorded as the price-of-record for the competitor for each of the days between the original entry date for the deleted price and the next entry of an updated price.

## Presentation Method

Design issue within RMS to support the client requirements for Presentation method result in restrictions on the conditions in which the presentation method will be pulled into RDW. Specifically, the presentation method attribute will be included only on records where the dim\_object on the item\_supp\_cntry\_dim\_md equals 'ea' (for each). It should also be acknowledged that sales are attributed to items and not specific vendors supplying the item. Given both suppliers are providing an item with the same UPC/barcode, item-locations with multiple suppliers assigned will have the total sales for the item-location attributed to each supplier assigned to that item-location. The same logic applies to supplier attributes.

## 13 period Calendar

RDW provides two options for time calendar functionality, fiscal 4-5-4 time and 13-period time. The fiscal 4-5-4 calendar is the calendar supported by RMS and other Retek applications, and is populated in RDW via an Extract from RMS. The 4-5-4 calendar is the default calendar used when viewing the time dimension via the MicroStrategy middle tier layer of RDW.

The 13-Period calendar is new to this GA product and is not supported by RMS. If a client chooses to use the 13-Period calendar in RDW, as opposed to the 4-5-4 calendar, the client can either provide a flat file with their 13-period time, or utilize a sample 13-period time flat file, and then ETL scripts will populate the time dimension with this file during RDW installation. If a client uses 13-period time, the RDW Middle Tier Installation Guide will provide steps on implementing the 13-period calendar in RDW's front end.

Regardless of which type of time clients load, more time can be added to the time calendar dimension after installation.

## Receipts by Supplier

There is one known defect with this functionality: RDW PI#54002, in a multi-channel environment, when shipments are received to virtual warehouses, DWI module scrqtltdat.pc is incorrectly using SHIPMENT.TO\_LOC (as held on the SCMP\_RCPT\_ITEM\_LD\_MD table) to filter locations from the ORDLOC table. Since SHIPMENT.TO\_LOC will only contain physical warehouses, and ORDLOC only contains virtual warehouses, the driving cursor will never retrieve data, thus preventing virtual shipment receipts from entering the supplier compliance datamart.

## Known Issues Concerning Tools Used with RDW 10.0

### MicroStrategy 7.1.4

- The N-Tile Ranking function does not currently have an option to evaluate the Set at default Metric level such as going into Filter Set Qualification and specifying the output level. The output level will be used more frequently than the break by option. This has been logged as enhancement with MicroStrategy Case # 148054
- Hidden hierarchy filters do not stay hidden after exiting out of the Desktop application. This will cause the filter to be displayed when drilling from Department to Supplier. This is not the desired result and has been logged as a defect with MicroStrategy Case #140264.

### DB2 - Decimal Divide Error

In DB2, the division function subtracts the scale, which causes a loss of precision. MSTR Case# 156493, Enhancement Case # 157845.

References: [IBM Technote](#), [MSTR Technote](#)

### RDW 10 (DB2)

The database.pds file was updated to cast denominators to Decimal(18,2).

```
<FUNCTION_REF ID="8107C33FDD9911D3B98100C04F2233EA"
SQLPATTERN="(CASE #0 WHEN 0 THEN NULL ELSE CAST(#0 AS
DECIMAL(18,2))END) " />
```

### Teradata – Zeros are returned for compound metrics

In Teradata, Count function returns an integer. Dividing two integers returns an integer, which would return a zero when numerator is less than denominator. MSTR Enhancement Case # 157845

References: [MSTR Technote](#)

### RDW 10 (Teradata)

The database.pds file was updated to cast denominators to Decimal(18,2).

```
<FUNCTION_REF ID="8107C33FDD9911D3B98100C04F2233EA"
SQLPATTERN="(CASE #0 WHEN 0 THEN NULL ELSE CAST(#0 AS
DECIMAL(18,2))END) " />
```

Getting an improper column reference in the search condition of a joined table in Teradata: MSTR Case # 157987

### RDW 10 (Teradata)

The VLDB properties at the Database Instance Level, updated to Join 92.

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