

Retek[®] Data Warehouse[™] 11.0

Release Notes

Corporate Headquarters:

Retek Inc.
Retek on the Mall
950 Nicollet Mall
Minneapolis, MN 55403
USA
888.61.RETEK (toll free US)
Switchboard:
+1 612 587 5000
Fax:
+1 612 587 5100

European Headquarters:

Retek
110 Wigmore Street
London
W1U 3RW
United Kingdom
Switchboard:
+44 (0)20 7563 4600
Sales Enquiries:
+44 (0)20 7563 46 46
Fax:
+44 (0)20 7563 46 10

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Contact Method	Contact Information
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Internet (ROCS)	rocs.retek.com Retek's secure client Web site to update and view issues
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Phone	+1 612 587 5800
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Toll free alternatives are also available in various regions of the world:

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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.

Overview

RDW 11.0 is a general availability (GA) release. This version of RDW was built on the RDW 10.2 foundation and adds to the Enterprise integration with Retek Merchandising System (RMS), Retek Sales Audit (ReSA), Retek Customer Order Management (RCOM), and Retek Merchandise Financial Planning (formerly Retek Top Plan). Most significantly, the RCOM interface has been expanded to include a variety of Direct to Consumer (DTC) information flowing from RCOM to RDW. This release also introduces a new interface with Retek Invoice Matching (ReIM) and Retek Price Management (RPM).

In RDW 11.0, the reports and metrics available in RDW's reporting tool, MicroStrategy, has been streamlined to provide the core functional reporting that is most important to a retailer. At the same time, retailers can continue to create reports that suit their unique business needs.

Functional enhancements

This section offers high-level summaries of the features that have been significantly modified or are new to RDW for version 11.0.

RCOM integration

RDW's existing multi-channel retail business analysis has been expanded to include a variety of RCOM Direct-to-Consumer business measures and functional areas.

Customer order alternative selling

The alternative selling functionality provides information to track the demand performance and CSR performance for specific alternative selling events. Alternative selling can be defined as follows:

- Cross-sells are pre-defined lists of items set up in RCOM as defined by business users. Examples include the following:
 - A flashlight (purchased) and batteries (cross-sell item)
 - A rug (purchased) and rug pad (cross-sell item)

This relationship is typically functional. A cross-sell event is based on a specific item that is added to a customer order.

- Static up-sells are pre-defined lists of items defined by business users and presented to customers. Business users from different functional areas (such as inventory management, merchandising and marketing) create, update, and maintain static up-sell events based on specific business objectives. These events are triggered by different factors depending on the business objective. For example, an up-sell item may be a higher quality product that can be offered to a customer ordering a lower level quality.

- Substitute items are set up as a customer service when an item, with continuing demand, is no longer available. Substitute items are usually items of similar or greater value to the related item, and may be offered at a discount. Substitute items are similar to cross-sell items, except that substitute items are only offered to the client if the ordered item is not available (NLA, SOS). In this situation, the CSR views the list of substitute items that have been associated with the selling item and can select from the list to add the substitute item as a new order line. The selection of a substitute automatically cancels the order line for the original item with a cancel reason code.

Customer requests

- The customer request functionality provides information to analyze historically how customer request volume has changed over time. A catalog request is defined as a customer's contacting the retailer to request that a catalog be sent to him or her.
- An activity request is defined as a customer's contacting the retailer for any reason other than to request a catalog or to place an order. Examples include inquiries about an existing order or a request for a particular recipe known to be offered by the retailer.

Customer order line positional facts

RCOM now provides RDW the backorder, picking and reserved position for all open order lines at an item/location/day level. This data allows for the historical analysis of all items in backorder, pick, or reserved status on a given day.

Media

The foundation data needed to perform DTC analysis in RDW rests upon the incorporation of catalog details from RCOM into a new attribute hierarchy in RDW. This new hierarchy is referred to as Media because DTC sales can be marketed to a consumer through a variety of media including traditional catalogs, post cards, and other direct mail methods. Media detail data consists of a hierarchy of a media header, media-selling item, media-selling item-selling SKU, and media-selling item-depiction code. All of these levels of the media hierarchy include related attributes and facts that define which inventory items are presented for sale in a specific media (catalog) and the mechanism (selling item) through which they are presented. An RDW user can perform DTC analysis such as viewing performance of selling items within a specific media, across media, and across time.

Header media vs. line media

The separation of customer order header media and customer order line media allows different users to analyze demand based on the media that drove the demand (the one tied to the customer order header) versus the media that contained the actual merchandise (the one tied to the customer order line).

Demand and aging analysis

Building on top of the media dimension, DTC customer order facts and attributes have now been incorporated into RDW from RCOM to provide customer order analysis, demand analysis and aging analysis. These are described below.

- Customer order details refer to information such as what products and services were purchased, when these products and services were fulfilled, the shipping and value-added-services that went with these orders, and so on.
- Demand analysis refers to the ability to understand the customer intent and any elements that impacted the customer's decision to carry out that intent. It includes sales, but additionally captures those situations where the customer expressed an interest in purchasing an item, but did not purchase the item for any reason.
- Status aging analysis refers to the aging of each of the statuses of a customer order line. For example, a user can now perform a query to answer the question: what was the quantity of items in backorder between 0 to 30 days, between 31 to 60 days, this February versus last February and so on.

DTC promotions

A DTC promotion provides a product or service discount and can be tied to a customer order at the order header, order-line or service-line level. Multiple promotions can be tied to a customer order, and multiple promotions could be tied to the same level of a customer order (for example, more than one promotion could be tied at the order header level). Customer order header and line facts are now supplemented by customer order promotion facts in RDW. Promotional effectiveness can be analyzed using a combination of promotional attributes such as promotion ID, promotion format, promotion description, promotion start/end dates, promotion trigger type, and so on.

Returns, replacements, exchanges, and partials

The returns, replacements, exchanges, and partials functionality relating to customer order processing allows the retailer to analyze factors such as the value, quantity, and types of products being returned, the timing of these returns, the quantity of partials, the value of promotions and value-added services affected, and so on. These measurements allow retailers to develop and apply strategies that enable them to understand and thereby control returns, exchanges, replacements, and partials. As part of this expanded DTC functionality, RDW now holds both demand sales and demand return facts with a drop ship indicator to indicate whether the DTC item originally purchased was sent directly to the client from the vendor. Note the following:

- A return transaction takes place when the customer returns merchandise that he bought ("return in") and gets a refund of (all or part of the) payment that he originally made. A return happens when the customer no longer wants the merchandise he bought either because the merchandise is defective or because the customer changed his mind, and wants his money back.
- A replacement transaction takes place when the customer returns merchandise that he bought and gets the exact same merchandise in replacement. No additional payments are made by or refunded to the customer in this transaction because the retail value of the merchandise that is returned ("replace in") and the retail value of the merchandise that he gets in replacement ("replace out") are exactly the same.

- An exchange transaction takes place when the merchandise that the customer returns (“exchange in”) is not identical to the merchandise that he gets in exchange (“exchange out”). This may be because the merchandise has different SKUs, or because the value and/or quantity of the merchandise are different, or both. An exchange may happen, for example, when the customer no longer wants original merchandise he bought because it was damaged or because he changed his mind, and wants some other merchandise in exchange.
- A partial transaction takes place when a part of an item is sent to the customer (“partial out”) because the part in the original shipment was damaged or missing. A partial may or may not involve charging/refunding money to the customer.

Value added services

A new feed from RCOM to include value added service lines has been added to RDW’s customer order analysis capabilities. A value added service can represent a number of different services such as monogramming, personalization and gift-wrapping. A service line can be attached to the customer order line and an order line can have more than one service line attached to it. A user can now measure “Service Price” at the service line level. Each service line holds attributes that enhance the reporting capabilities, such as color, font, and type (type may represent for instance ‘holiday wrapping paper’ or ‘flower design gift card’).

Multiple views of time for demand

An additional view of time has been provided to some of the demand facts from the RCOM order line data. In addition to the order create time, which is a static fact that matches the first date that the order was created, a view of transactional time has been added. This transaction time will be added to capture the date that the order line may have been modified.

Demand facts available to be viewed at this transaction time are:

- View **demand** facts/metrics by the date the demand was actually captured (Transaction Date), as well as when the customer order was originally created.
- View **“static” order line** facts/metrics by the date the value was actually captured (Transaction Date), as well as when the customer order was originally created.
- View **service line** facts/metric by the date the service line was actually captured (Transaction Date), as well as when the customer order was originally created.
- View **return** facts/metric by the date the demand was actually captured (Transaction Date), as well as when the customer order was originally created.

Partial reason code on demand

The items that are sent out as part of a partial transaction are not considered part of demand. The value of the items is, however, included as part of sales. A partial transaction comes in as a new order line under the original order header. RCOM can assign a reason code to partial transactions to indicate why the partial line is being created.

Transaction retail on demand

This requirement revolves around the ability to analyze demand by transaction retail value, the amount the retailer intends to collect from the customer after item-related discounts have been applied, once the order is shipped and the customer's account is charged.

RMS integration

The interfaces described in this section from RMS have been added and/or enhanced in this release of RDW.

Banner attribute

Banner represents the name of a retail company's subsidiary that is recognizable to the consumer or the name of the store as it appears on the catalog, web channel or brick and mortar store. Some retailers will call this concept, brand, or company instead of banner. Currently in RMS, users have the ability to set up a banner and banner description, and attribute one or more RMS channels to a banner. A channel is a selling channel such as bricks-and-mortar or DTC. A channel type and a channel id work in conjunction to provide segregation within a selling channel.

While channel was already an attribute of location within the RDW organization hierarchy, RDW 11.0 now extracts banner along with channel from RMS. Banner exists as a parent attribute of channel. Channel and banner can be used as an alternative way to group data on a report by elements of the organization hierarchy. Along with roll-ups above location such as district, region and area, a user can now report on facts such as sales and inventory by banner and/or channel.

New item attributes

As part of changes being made to foundation data in RMS to support the DTC business, new and existing attributes have been incorporated into RDW to facilitate analysis across the customer orders and media. The following attributes were added:

- **Sellable flag**
This allows a user to filter out non-sellable items (such as replacement parts) when reporting in RDW.
- **Collection attribute**
RDW now holds a collection attribute (such as a line of furniture) in the data model in support of sales and demand reporting by collection.

Gregorian time

In addition to the previously existing 4-5-4 calendar, with RDW 11.0, a 4-5-4 calendar and Gregorian calendar option is available providing the ability to report on a 4-5-4 calendar or a Gregorian calendar. Both calendars are maintained in RDW, so a report can be created using either. Also to aid in report performance, new sales aggregates are maintained at the item and subclass/location/Gregorian month. As was available in 10.2, the 13 period calendar option is still available.

Stock ledger

Because the stock ledger in RDW is fed from the stock ledger in RMS, the functionality was changed to incorporate the new Gregorian time capabilities. If RMS is set up with a 4-5-4 calendar, reporting on the stock ledger in RDW can be at one of the following:

- 4-5-4 week and higher
- Gregorian month and higher

If the RMS calendar is Gregorian, only Gregorian month and higher stock ledger reports are obtainable.

ReSA integration

RDW's interface with ReSA was updated to tie customer order numbers, both the media and selling item, and other DTC- related identifiers to the DTC sales transactions posted to ReSA by RCOM through the RTLOG file. This update allows RDW's sales datamart to now hold additional attributes such as selling item and media, which facilitates media performance reporting utilizing sales data.

Drop Ship

The current drop ship indicator in ReSA is now be populated by RCOM whenever a customer order is shipped directly from the vendor to the consumer which allows reporting to be provided for sales that are directly shipped to the consumer.

Accommodations

Accommodations regarding demand functionality was added in the RDW 11.0 release. RDW's sales functionality was expanded to hold accommodation facts. Accommodations refer to monetary adjustments given to a customer by the retailer in an act of goodwill to help achieve customer satisfaction. Accommodations that can be tied to a specific order line are held as a fact in the sales datamart, whereas accommodations given to a customer when an order cannot be associated to an item is held as a loss prevention fact tied to a reason such as "customer accommodation".

RPM integration

RDW now pulls promotional dimension data from RPM instead of RMS. The dimension data is the same; the source system has changed

ReIM integration

RDW now pulls supplier invoice cost information from ReIM instead of RMS.

Standalone integration

Comparable store measures

Many retailers require the ability to report on comparable (comp) store sales. RDW's existing comp reports pull sales based on a store open date that is fed from the RMS STORE table. RDW 11.0 introduces an additional way to provide comp business measure reporting.

An aggregation now exists to hold this as a historical attribute of a store (held over time). Business measures can now be evaluated by whether the store was a "comp store" for a given time period. A retailer can now create sales metrics to use new comp and non-comp dates, and variance metrics comparing comp sales this year versus last year. With the flexibility of RDW's MicroStrategy front end, a power user can now easily create these and other business measures, which can be evaluated against stores that are comp as opposed to non-comp.

This information must come from a legacy system because RMS 11.0 does not hold this information.

Reporting

Beginning with RDW 11.0, RDW will only provide the most common and re-usable metrics and reports. Rarely used metrics and reports, available in previous versions of RDW, will no longer be maintained within the metadata. Retek realizes that each retailer is unique and has their own reporting analysis that focuses on their specific reporting goals. The flexibility of RDW gives each retailer the ability to build the reports important to them. RDW 11.0 contains common and re-usable metrics and reports along with the building blocks a retailer needs to meet their reporting goals.

Technical enhancements

Aggregates

New department-location-day and department-location-week aggregates were added for the following functional areas:

- Inventory Position
- Markdowns
- Sales

New Gregorian month aggregates were added for the following functional areas

- Sales at Item - Location – Gregorian Month
- Sales at Subclass Location – Gregorian Month

Updated VLDB settings

A MicroStrategy VLDB setting “Joins / Cartesian Join Warning” - was changed from the default *Execute without warning* to *If only one side of Cartesian join contains warehouse tables, SQL will be executed without warning*. This was done to prevent a Cartesian join on two or more warehouse tables, which is costly and can result in the presentation of erroneous data.

RMS RETL Extractions

Retek Extract Transform Load (RETL) modules used to extract information from the Retek Merchandising System (RMS) are no longer packaged with the RDW product, as was the case in previous RDW releases. These extraction modules are still available, they are now however packaged with the RMS product. The movement of these modules from RDW to RMS does not change what they do or how they work.

Known limitations and issues

Product defects

Listed below are defects that have currently been logged against RDW 11.0 that are still being worked on at the time of packaging. These defects will continue to be addressed, and when a fix is available, they will be incorporated into a future patch and communicated to the client.

RDW 11.0 completed defects

For a complete list of defects fixed during 11.0 development (including modules, tables, front-end objects affected), see the RDW 11.0 Migration Guide.

RDW 11.0 defects

Defect # 366315: Backposting of sales does not return correct season.

Known Limitations

Database independence

RDW supports database independence; however at the time of the 12/31/04 release, RDW 11 is only certified on Oracle. Clients should check with customer support for the future availability of DB2 and Teradata for RDW 11.0.

Languages

Past releases of RDW have supported multiple languages, including English, French, Japanese, and Spanish. At the time of the 12/31/04 release, RDW 11 supports only the English and French languages. Clients should check with customer support for availability of other language translations.

Break to sell items

The Retek Merchandising System was enhanced to allow break to sell items, which are relevant to grocery store retailers. All RMS extractions that could encounter a break to sell item filter it out, so that it will not show up in the RDW. However, the RDW does not filter out any levels higher than item such as item list or a subclass that contains all break to sell items. This may cause an empty list in RDW. The item list will still be available as an attribute in RDW but no items will be associated to it causing any report using the item list to return no data.

Promotions

RDW 11.0 now pulls promotion information from Retek Price Management (RPM) instead of the Retek Merchandise System (RMS). As a result of this change, stores can now have a many-to-many relationship to promotion zones. RDW will still allow for a promotion zone attribute, but it will not reflect the RPM store/promotion zone relationship. Instead, it will need to be custom populated in RDW by clients, if they choose.

Pack component sales markdowns

In previous versions of RDW, there was an aggregate for the sales markdown pertaining to packs and the components of the pack. The integrated source system for this information is the Retek Merchandising System (RMS). The RMS does not hold sales markdowns at the pack level; therefore, when integrated with RMS, there would not be any information populated in this datamart. The aggregation may be relevant when sales markdown information comes from a legacy system if and only if the legacy system shares the same pack-item functionality as RMS and records markdowns for clearance, promotional and permanent at the pack level.

Because most retailers who do not have RMS would handle packs in a very different way, it was concluded that pack component sales markdown aggregation is 'empty' functionality and was therefore removed from RDW 11.0

MicroStrategy

Report working set issue

The 'OLAP Services' feature (also referred to as the 'Intelligent Cube') introduced in MicroStrategy 7.2 allows for the manipulation of reports that involves the addition and removal of attributes and metrics from a report view without having to re-execute the report against the database. In some instances, while moving attributes from the report's view to its working set, it may not be possible to re-aggregate a metric without re-executing the report against the database. If the MicroStrategy Engine cannot re-aggregate, the report will show two dashes ("--") for the value of the metric. If a user wishes MicroStrategy to calculate the metric from the database, the attributes will need to be removed both from the report view as well as from the report working set.

Please refer to the RDW User Guide, "Appendix D – Technical considerations" under the 'Metric Subtotals and Dynamic Aggregation' section for a detailed explanation of how subtotals and dynamic aggregations work and why this problem occurs.

Properties template in OLAP services shortcuts

If the Report Editor in MicroStrategy Desktop is used to modify a report that uses an OLAP shortcut to a template object, some of the settings that were originally applied on the template may be moved off the template and applied directly on the report. If there are other reports that are using the same template, those reports may behave differently because the original settings are no longer existent on the underlying template. 'Sorting' and 'Totaling' are two such settings that are lost when modifying a template using the Report Editor and OLAP Services. This is being investigated with MicroStrategy.

Automatic Mapping

If the RDW workbenches are set to have Automatic Mapping within MicroStrategy (so that schema objects map to new tables automatically), this setting does not work consistently. This issue has been logged with MicroStrategy.

AIX

ncargs parameter on AIX

If you are running AIX 5.1 with the 32-bit kernel the server can crash when running an RDW module if the ncargs parameter value is too low due to a bug in exception handling in the AIX kernel. If you are running with a 64-bit kernel, an error may still occur but the server will not crash. Errors seen relating to this parameter: "upd_status[252]: 868474 Killed" and "0403-027 The parameter list is too long"

Resolution: Determine what kernel mode you are running. As the root user, increase your setting for ncargs. This parameter should be increased for both 32-bit kernel and 64-bit kernel. At the command line enter:

```
% prtconf|grep -i kernel
```

```
Kernel Type: 32-bit
```

```
% chdev -l sys0 -a ncargs=128
```