Product: DQVRP for DQ Delivery Map Release Notes

Subject: DQVRP v7.2.54

Version: 1.0
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Distribution: ODT Customers

DQVRP for DQDeliveryMap v7.2.54

Changes:

- Rewritten to work with DQDataService. Either the sql connection or the URL to the DQDataService can be specified.
- New option – 'Do not update order ETA'
  - Found under the 'General' tab
  - If selected, the ETA and ETD fields on the order will not be updated when the solve finishes.

DQVRP for DQDeliveryMap v7.2.50

Changes:

- Fixed various bugs with how data is saved for display purposes.
- Fixed bug with how time windows could be set incorrectly.

DQVRP for DQDeliveryMap v7.2.49

Changes:

- Bug fix: The function to set time windows was not getting called for each order. It should be getting called now.

DQVRP for DQDeliveryMap v7.2.47

Changes:

- When the option to group orders is selected, orders can be grouped by either job account or proximity. However, this does not take into consideration that different orders may require different types of delivery trucks to make the delivery. So now, when grouping is selected, the grouping is done by both job account and equipment type or proximity and equipment type. This way, even if two orders are going to the same job account, but require different equipment types, they will not be grouped together.
- In the VRP wizard, Step 5: Truck Setup, there is now an ALL checkbox so that all trucks call either be checked available or not with one click.

DQVRP for DQDeliveryMap v7.2.45

Changes:

- Fixed bug with Analysis and Manual solve routines. The location was not being used to query existing trucks, so too many trucks were being returned resulting in a VRP error message about truck assigned to unknown Depot.

DQVRP for DQDeliveryMap v7.2.43

Changes:

- Grouping by proximity will make sure that orders that are near one another all go on the same truck. However, while they may be relatively near, they still may be far enough apart so that they need to be delivered in a specific order, otherwise the drivers may have to go back and forth between orders, increasing inefficiency. So now, after the results are returned from the VRP solver, orders for the same stop are now sequenced by how far apart they are from the first stop point. The further they are out, the further down their load sequence is.
  - o This is just a rough estimate of how the orders should be delivered. It should at least group orders at the same address together. However, it doesn't take into account routing, one way streets, natural obstacles, etc. The proximity radius should not be so large that these come into play.

DQVRP for DQDeliveryMap v7.2.41

Changes:

- Added option to 'Enforce mapzone routing'.
- If this option is checked, then employee mapzones will be set up as truck groups and the order can only be delivered on a truck whose mapzone (truck group) matches the order's mapzone.

DQVRP for DQDeliveryMap v7.2.40

Changes:

- New Options:
- A time limit for the solver to run can now be specified in seconds. If set to 0, then there is no time limit.

- The driving distance between two orders or between an order and a warehouse can now be checked for long distances. If a long distance is found, then an error will be thrown and advanced routing will not continue. This is to catch bad lat/longs in the data.
- Mapzones associated with an employee can now be specified as a truck group. This can act as a filter that only allows certain employees to deliver certain orders where the order's mapzone matches the employee's mapzones. I'm not sure that employees can be assigned to multiple mapzones in ODT right now, but if it can, then this should work.

DQVRP for DQDeliveryMap v7.2.39

Changes:

- New grouping options added to the Options form for running VRP solves
- Group order by job id and NoLatLong orders by proximity. This is basically the same as the previous grouping option. Non-NoLatLong orders are grouped together by job account id. NoLatLong orders are grouped together by proximity.
- Group all order by proximity. All orders are grouped based on how close they are to one another. Orders that are within the specified proximity radius to one another will be grouped together. Since work times are per job, there may be multiple jobs grouped together, so only the greatest work time will be set for the group.
- Proximity distance. This is the straight-line radius distance in meters that is used to determine if orders should be grouped together.

DQVRP v7.2.36
Changes:

- When the grouping option is turned on, NoLatLong orders are now grouped by locality.
  - Locality is defined as the distance between orders, which is currently hard coded to 500 meters. So if order 2 is within 500 meters, straight line distance, of order 1, then they are considered to be in the same locality and thus would be grouped together.
  - When these orders are grouped together, the detail of the first order is used to represent all the orders in the group. Thus, detail about individual order or job settings can be lost, for example, the time window of the first order would be used for all orders in the group. Other settings, like order capacity, loading time and unloading time are summed up for all the orders in the group, like is done for grouping non-NoLatLong orders.
  - Non-NoLatLong orders are still grouped by job account id.
- Orders that are grouped can now be seen in the grid, under the 'Order#' column.
  - Order numbers that start with gj_xxx, are orders grouped by job account
  - Order numbers that start with gl_xxx are orders grouped by locality

- Bug fix: When grouping is turned on, all orders were being geocoded. Now, only the grouped orders or the grouped job accounts are geocoded .

DQVRP v7.2.35

Changes:

- Fixed bug in 'Manual' solves. The return time calculations were being done against the wrong order – the next to last order instead of the last order.
- Fixed bug when comparing manual solves. An 'object reference not set' exception would be raised whenever clicking compare for a manual solve. That's because it needed to call 'reportMeasuredSolution' before getting the measured solution report.

DQVRP v7.2.34

Changes:

- If a truck is scheduled for multiple trips in one day, the first one will be assigned a load time based on the starting time of the first trip. Subsequent trips will be assigned a load time based on the next load time in the load times table, sequenced by the TimeCode field.

DQVRP v7.2.32

Changes:

- Updated to latest VRPProblem – 0.48
  - `Fixed bug in Feasibility Reporting: First Arrival Time Windows were defaulting to regular TimeWindow behavior during Feasibility checks.`

DQVRP v7.2.30

Changes:

- When shipvia or status is NULL, the query was not picking them up because the filter code had converted the NULLs to 0s. So now NULLS are converted to 0s when the query is run.

DQVRP v7.2.29

Changes:

- Resvolved issue with not assigning orders to available trucks. Solver was ignoring Trucks that were incorrectly seen as "equivalent" to other, empty Trucks. It was not correctly considering differences in TruckGroup assignments

DQVRP v7.2.28

Changes:

- Updated to latest version of VRPProblem from Gray. Changes include:
  - Fixed bug in FeasibilityProblems check for MeasuredSchedules.
  - Added 30 minutes of "earliness allowed" for Order TimeWindows, in the case of MeasuredSchedules. Deliveries that are up to 30 minutes before the TimeWindow opens will not be counted as FeasibilityProblems, nor add to the cost penalty.

DQVRP v7.2.26

Changes:

- Fixed bug where an object reference was not being properly destroyed upon exiting the program, which could cause an app crash to occur for DQMap and/or Mappoint.

DQVRP v7.2.22

Changes:

- Should now show ordernumber along with order pkey in error messages.
- Schedule grid should now show children vertically instead of horizontally.

DQVRP v7.2.18

Changes:

- Bug fix: Error when trying to convert a datarowview to datarow. Should be converting everything to datarow now.
- If no orders are found matching the specified location or trip date, the error message is now shown in the filter orders tab and the wizard cannot continue. If there are no orders, then there will be no shipvias or status' to filter off of.
- Included a way to select all shipvias or statuses in list.

DQVRP v7.2.17

Changes:

- Fixed bug: If there were no non-default Time Windows, the Next button would not be enabled. Now, it should be enabled.
- Added new tab to setup wizard called 'Filter Orders'. This allows the orders to be filtered further based on the Ship Via and Status of the queried orders.
- The starting load time of trips can now be specified under the 'Truck Setup' tab. When trips are written, they will all get the specified load time.
  - The default action is to convert the trip start time (get from start time), but with this option, the load time for all trips can just be set to this specified load time

DQVRP v7.2.16

Changes:

- Bug Fix: When clicking to run an auto routing process, the process would not start. That's because the select case statement was not written correctly.

DQVRP v7.2.4

Changes:

- Bug fix: If a specific list of drivers assigned to a list of user defined trucks is passed in, after the solver has finished running and trip information is getting written back to the db, the user assigned truck driver should be saved to the trip record under the driver_id field. This was not getting set but now it is. If there is not an user assigned driver, then the default driver will be set to the trip.

DQVRP v7.2.4

Changes:

- Fixed bug in install. The install was installing an older version of the dqmapsvr_api.dll which was causing issues when calling the mapsvr web service from the dqvrp_api.dll.
  - Error: Method not found: 'Void DQMapSvr_API.DQMapAPI.PopCustTurnByTurnDistances(Int16, System.String, System.String, System.String, System.String, Boolean, Int32, Boolean, Boolean)'

DQVRP v7.2.3

** Requires db update - Version (20120215-20120216) or newer

Changes:

- UseLocalMap - The option to use the Local Map (instead of web service map) has been added.
    - If selected, the DQ Map Server API will be called directly and Mappoint will be used to run turn-by-turn calculations using the specified map file (DefaultMap below).
    - If not selected, the DQ Map Server URL should be passed in and the DQ Map Web Service will be called instead.
- DefaultMap - A map file to run calculations against can now be set.
    - If a map file is set, it will be loaded and used for calculations, if not the default North America map will be loaded.
- DoNotSaveDBRouteDistance – When route distance calculations (turn-by-turn distances/times) run, the user can specify to not save these values to the routedistance_tbl.
- DoNotSaveDBQueryType – When route distance calculations run and the address needs to be geocoded, the user can specify not to save the geocoded lat/long back to the db.
- Minor bug fixes.

DQVRP v7.2.2

** requires db update 20120210 or newer

Changes:

- Uses latest Android VRP version - 0.32
- A VRP completed status can now be passed in. When VRP has successfully completed, the specified status will be set on the order and the trip record. Also, the statuschanged flag will be set to 1.
- Bug Fix – For grouped orders, the time windows were not getting set correctly because the time windows were associated to the order record and the job id was being used which was not returning a time window. Now, when orders are grouped, the time windows for the first non-default order will be used. If there are no orders with non-default time windows, then the default time window will be used. So, if there are multiple orders set up with non-default time windows, only the first one will be used and the results may not match the requested time windows. For these cases, it is advised that the group job orders option not be used.
- Additional fields can now be passed into the truck info string – RouteStartTime, MaxWorkHours and MaxDriveHours. If these values are passed in, they will be used, otherwise the default values will be used.
- Context info is now set on the db connection for tracking changes in the order audit table.

- Order numbers and truck names are now passed to Android solver to help with reading the log files.

DQVRP v7.2.1

Changes:

- Improved ability to cancel VRP effectively from the delivery map Advanced routing interface

DQVRP v7.2.0

Changes:

- Now written in .NET 4
  - Should be compatible with new DQMapSvr v7.2.*
- The units for time have changed
  - The units for distance and time have not been consistent up to this point. Now they should be set to miles for distance and seconds for time.
- In DQ Delivery Map, it's best to set and use the DQMapSvr web service instead of doing a direct call when using a map web service (Bing, Google or Mapquest). That's because there's a lot of setup associated with making a mapping service call that is not available from DQ map such as the map keys.
  - In DQ Delivery Map, under tools → Options → Vehicle Routing tab → Web Services tab → DQ Map Svr URL

***Requires uninstall of existing DQVRP version before installing this version*

***Requires DQ Delivery Map v7.1.37 or greater*

***Requires db version 10/31/2011 or newer*

***Must delete out RouteDistance_tbl before running this version*