

Notes for June 22, 2017, Umler System Release

The Thursday, June 22, 2017, Umler system release includes functional enhancements to Umler and the Component Registry; Equipment Type Code changes/updates; and modifications to permissible values, elements and business rules within the application.

Below are the complete details of this release.

- **Umler Functional Enhancements**

- Implementation of Pseudo Equipment Group (B47) element and associated system behavior for certain Maintenance of Way (MW) types of Mechanical Designations (UMMD)
- Enhanced functionality for GOND and HOPP equipment groups to allow for cars with 18 trucks to be entered into Umler

- **Component Registry Functional Enhancements**

- Updated Component Details View screen within Component Registry to include Axle Condition, Backing Ring description, associated Equipment ID and Number and Location
- Enhanced the Component Registry Pre-defined query to include functionality to allow for searching all dates, search for most current associated component, as well as search on a specific equipment list
- Resolved issues with the “Search if <COMPONENT> is Registered” functionality to ensure that all search criterion is taken into account (Bolsters/Sideframes)
- Added/allowed new Condition Codes for Brake Valves as well as for Wheelset Job Code 6999
- Updated Field Registration search screen to include Cavity Number (C607) (Couplers) as well as resolved Part Number search issues (search issue with spaces in Part Numbers)
- Updated Field Registration screen (Slack Adjusters) to make AAR OEM/Recon Facility Code (C902) optional
- Updated Component Registry Int Extended Axle Codes (C316) field to be numeric instead of text

- **Equipment Type Codes (New & Changed/Updated ETCs)**

- Equipment Type Code (UMET): M300
 - Equipment Group: GOND
 - Mechanical Designation (UMMD): MWGN - MoW - Gondola

- Equipment Type Code (UMET): M320
 - Equipment Group: HOPP
 - Mechanical Designation (UMMD): MWH - MoW - Hopper
- Equipment Type Code (UMET): M330
 - Equipment Group: IFLT
 - Mechanical Designation (UMMD): MWIF - MoW - Iflat
- Equipment Type Code (UMET): M340
 - Equipment Group: VFLT
 - Mechanical Designation (UMMD): MWVF - MoW - Vflat
- Equipment Type Code (UMET): M800
 - Equipment Group: MISC
 - Mechanical Designation (UMMD): Updated to MFTD - Fuel Tender, Diesel (Tank)
- Equipment Type Code (UMET): M810
 - Equipment Group: MISC
 - Mechanical Designation (UMMD): MFTG - Natural Gas Fuel Tender, (Tank)
- Equipment Type Code (UMET): M820
 - Equipment Group: MISC
 - Mechanical Designation (UMMD): MFND - Fuel Tender, Diesel (Non-tank)
- Equipment Type Code (UMET): M830
 - Equipment Group: MISC
 - Mechanical Designation (UMMD): MFNG - Natural Gas Fuel Tender (Non-tank)
- Equipment Type Code (UMET): Qxx4
 - Equipment Group: IFLT
 - Mechanical Designation (UMMD): FC - Flat-Intermodal (Standard, Low Profile, Stack)
- Equipment Type Code (UMET): Qxx4
 - Equipment Group: IFLT
 - Mechanical Designation (UMMD): FCA - Flat-Intermodal Articulated (Standard, Low Profile, Stack)
- **Permissible Value Updates - Updates/Removals/New Values**
 - Equipment Builder (A035)
 - Equipment Group(s): BOXC, GOND, HOPP, FLAT, IFLT, VFLT, & MISC
 - New Permissible Value: EDSP - ESTRATEGIAS DUL S. DE R.L.

- Mechanical Designation (UMMD)
 - Equipment Group(s): MISC
 - Updated Permissible Value from MFT - MoW - Fuel Tender to MFTD - Fuel Tender Diesel (Tank)
- Mechanical Designation (UMMD)
 - Equipment Group(s): MISC
 - New Permissible Value: MFND - Fuel Tender Diesel (Non-tank)
- Mechanical Designation (UMMD)
 - Equipment Group(s): MISC
 - New Permissible Value: MFNG - Natural Gas Fuel Tender (Non-tank)
- Mechanical Designation (UMMD)
 - Equipment Group(s): MISC
 - New Permissible Value: MFTG - Natural Gas Fuel Tender (Tank)
- Mechanical Designation (UMMD)
 - Equipment Group(s): GOND
 - New Permissible Value: MWGN - MoW - Gondola
- Mechanical Designation (UMMD)
 - Equipment Group(s): HOPP
 - New Permissible Value: MWH - MoW - Hopper
- Mechanical Designation (UMMD)
 - Equipment Group(s): IFLT
 - New Permissible Value: MWIF - MoW - IFlat
- Mechanical Designation (UMMD)
 - Equipment Group(s): VFLT
 - New Permissible Value: MWVF - MoW - VFlat
- Single Length Loading Config (B288)
 - Equipment Group(s): IFLT
 - New Permissible Value: QB4 - Q BOTH 2-28ft trailer, or 1-40ft or 1-45ft or 1-48ft or 1-53ft or 1-57ft trailer on all platforms, or 1-40ft or 1-45ft or 1-48ft or 1-53ft by 96in or 102in container on all platforms
- Single Length Loading Config (B288)
 - Equipment Group(s): IFLT
 - New Permissible Value: SD6 - 5 Well BLK 2-20ft or 1-40ft container(s) in end wells and 40ft containers only in intermediate wells, with 40ft containers stacked on top of intermediate wells and 40ft or 45ft containers stacked on top of end wells

- **Permissible Value Range Updates**

- Unit Cubic Feet Capacity (A065)
 - Equipment Group(s): HOPP
 - New Maximum Value: Updated maximum permissible value from "11000" to "8800"
- Unit Cubic Feet Capacity (A065)
 - Equipment Group(s): GOND
 - New Maximum Value: Updated maximum permissible value from "11000" to "8800"
- Unit Load Limit (A300)
 - Equipment Group(s): HOPP
 - New Minimum Value: Updated minimum permissible value from "20000" to "70000"
 - New Maximum Value: Updated maximum permissible value from "500000" to "300000"
- Unit Load Limit (A300)
 - Equipment Group(s): GOND
 - New Minimum Value: Updated minimum permissible value from "20000" to "70000"
 - New Maximum Value: Updated maximum permissible value from "500000" to "300000"
- Unit Tare Weight (A299)
 - Equipment Group(s): HOPP
 - New Minimum Value: Updated minimum permissible value from "10000" to "23000"
 - New Maximum Value: Updated maximum permissible value from "500000" to "120000"
- Unit Tare Weight (A299)
 - Equipment Group(s): GOND
 - New Minimum Value: Updated minimum permissible value from "10000" to "30000"
 - New Maximum Value: Updated maximum permissible value from "500000" to "150000"
- Weight on Drivers (A115)
 - Equipment Group(s): LOCO
 - New Minimum Value: Updated the minimum value from "160000" to "100000"

- **Element Updates (New Elements/Element Changes & Updates)**
 - Pseudo Equipment Group (B547)
 - Equipment Group(s): BOXC, GOND, HOPP, FLAT, IFLT, VFLT, & TANK
 - Element Description: Equipment needs to be identified as a miscellaneous record while maintaining all elements linked to the original equipment group.
 - Permissible Values:
 - MISC - Miscellaneous
 - System Generated
 - Presentation Group: General
 - Maint of Way Service Type (B403)
 - Equipment Group(s): BOXC, GOND, HOPP, FLAT, IFLT, VFLT, & TANK
 - Element Description: New - Maintenance of Way Service Type
 - Permissible Values:
 - C2 - Crane / Boom Support Car
 - F4 - Flat-Wheel Sets
 - T4 - Training Car
 - T8 - Track Geometry Car
 - Added existing element to new equipment groups above
- **Business Rule Changes - New/Changed or Updated/Removed Rules**
 - Maint of Way Service Type (B403)
 - Equipment Group(s): BOXC, GOND, HOPP, FLAT, IFLT, VFLT, & TANK
 - New Rule: Maint of Way Service Type can only be listed on records where the Equipment Group (0002) or Pseudo Equipment Group (B547) is listed as MISC
 - Load Limit (LDLT)
 - Equipment Group(s): HOPP
 - New Rule: Load Limit (LDLT) of HOPP with a blank Connected Unit Count (A020) must contain values between 100,000 lbs. and 265,000 lbs.
 - New Rule: Load Limit (LDLT) of HOPP where Connected Unit Count (A020) is 2, must contain values between 200,000 lbs. and 530,000 lbs.
 - New Rule: Load Limit (LDLT) of HOPP where Connected Unit Count (A020) is 3, must contain values between 300,000 lbs. and 795,000 lbs.
 - New Rule: Load Limit (LDLT) of HOPP where Connected Unit Count (A020) is 4, must contain values between 400,000 lbs. and 1,060,000 lbs.
 - New Rule: Load Limit (LDLT) of HOPP where Connected Unit Count (A020) is 5, must contain values between 500,000 lbs. and 1,325,000 lbs.
 - New Rule: Load Limit (LDLT) of HOPP where Connected Unit Count (A020) is 6, must contain values between 600,000 lbs. and 1,590,000 lbs.
 - New Rule: Load Limit (LDLT) of HOPP where Connected Unit Count (A020) is 7, must contain values between 700,000 lbs. and 1,855,000 lbs.

- New Rule: Load Limit (LDLT) of HOPP where Connected Unit Count (A020) is 8, must contain values between 800,000 lbs. and 2,120,000 lbs.
- New Rule: Load Limit (LDLT) of HOPP where Connected Unit Count (A020) is 9, must contain values between 900,000 lbs. and 2,385,000 lbs.
- Load Limit (LDLT)
 - Equipment Group(s): GOND
 - New Rule: Load Limit (LDLT) of GOND with a blank Connected Unit Count (A020) must contain values between 70,000 lbs. and 300,000 lbs.
 - New Rule: Load Limit (LDLT) of GOND where Connected Unit Count (A020) is 2, must contain values between 140,000 lbs. and 600,000 lbs.
 - New Rule: Load Limit (LDLT) of GOND where Connected Unit Count (A020) is 3, must contain values between 210,000 lbs. and 900,000 lbs.
 - New Rule: Load Limit (LDLT) of GOND where Connected Unit Count (A020) is 4, must contain values between 280,000 lbs. and 1,200,000 lbs.
 - New Rule: Load Limit (LDLT) of GOND where Connected Unit Count (A020) is 5, must contain values between 350,000 lbs. and 1,500,000 lbs.
 - New Rule: Load Limit (LDLT) of GOND where Connected Unit Count (A020) is 6, must contain values between 420,000 lbs. and 1,800,000 lbs.
 - New Rule: Load Limit (LDLT) of GOND where Connected Unit Count (A020) is 7, must contain values between 490,000 lbs. and 2,100,000 lbs.
 - New Rule: Load Limit (LDLT) of GOND where Connected Unit Count (A020) is 8, must contain values between 560,000 lbs. and 2,400,000 lbs.
- Tare Weight (A259)
 - Equipment Group(s): HOPP
 - New Rule: Tare Weight (A259) of HOPP with a blank Connected Unit Count (A020) must contain values between 23,000 lbs. and 120,000 lbs.
 - New Rule: Tare Weight (A259) of HOPP where Connected Unit Count (A020) is 2, must contain values between 46,000 lbs. and 240,000 lbs.
 - New Rule: Tare Weight (A259) of HOPP where Connected Unit Count (A020) is 3, must contain values between 69,000 lbs. and 360,000 lbs.
 - New Rule: Tare Weight (A259) of HOPP where Connected Unit Count (A020) is 4, must contain values between 92,000 lbs. and 480,000 lbs.
 - New Rule: Tare Weight (A259) of HOPP where Connected Unit Count (A020) is 5, must contain values between 115,000 lbs. and 600,000 lbs.
 - New Rule: Tare Weight (A259) of HOPP where Connected Unit Count (A020) is 6, must contain values between 138,000 lbs. and 720,000 lbs.
 - New Rule: Tare Weight (A259) of HOPP where Connected Unit Count (A020) is 7, must contain values between 161,000 lbs. and 840,000 lbs.
 - New Rule: Tare Weight (A259) of HOPP where Connected Unit Count (A020) is 8, must contain values between 184,000 lbs. and 960,000 lbs.

- New Rule: Tare Weight (A259) of HOPP where Connected Unit Count (A020) is 9, must contain values between 207,000 lbs. and 1,080,000 lbs.
- Tare Weight (A259)
 - Equipment Group(s): GOND
 - New Rule: Tare Weight (A259) of GOND with a blank Connected Unit Count (A020) must contain values between 30,000 lbs. and 150,000 lbs.
 - New Rule: Tare Weight (A259) of GOND where Connected Unit Count (A020) is 2, must contain values between 60,000 lbs. and 300,000 lbs.
 - New Rule: Tare Weight (A259) of GOND where Connected Unit Count (A020) is 3, must contain values between 90,000 lbs. and 450,000 lbs.
 - New Rule: Tare Weight (A259) of GOND where Connected Unit Count (A020) is 4, must contain values between 120,000 lbs. and 600,000 lbs.
 - New Rule: Tare Weight (A259) of GOND where Connected Unit Count (A020) is 5, must contain values between 150,000 lbs. and 750,000 lbs.
 - New Rule: Tare Weight (A259) of GOND where Connected Unit Count (A020) is 6, must contain values between 180,000 lbs. and 900,000 lbs.
 - New Rule: Tare Weight (A259) of GOND where Connected Unit Count (A020) is 7, must contain values between 210,000 lbs. and 1,050,000 lbs.
 - New Rule: Tare Weight (A259) of GOND where Connected Unit Count (A020) is 8, must contain values between 240,000 lbs. and 1,200,000 lbs.
 - New Rule: Tare Weight (A259) of GOND where Connected Unit Count (A020) is 9, must contain values between 270,000 lbs. and 1,350,000 lbs.
- Cubic Feet Capacity (A067)
 - Equipment Group(s): HOPP
 - New Rule: Cubic Feet Capacity (A067) of HOPP with a blank Connected Unit Count (A020), must contain values between 400 cubic feet and 8,500 cubic feet
 - New Rule: Cubic Feet Capacity (A067) of HOPP where Connected Unit Count (A020) is 2, must contain values between 800 cubic feet and 17,000 cubic feet
 - New Rule: Cubic Feet Capacity (A067) of HOPP where Connected Unit Count (A020) is 3, must contain values between 1,200 cubic feet and 25,500 cubic feet
 - New Rule: Cubic Feet Capacity (A067) of HOPP where Connected Unit Count (A020) is 4, must contain values between 1,600 cubic feet and 34,000 cubic feet
 - New Rule: Cubic Feet Capacity (A067) of HOPP where Connected Unit Count (A020) is 5, must contain values between 2,000 cubic feet and 42,500 cubic feet
 - New Rule: Cubic Feet Capacity (A067) of HOPP where Connected Unit Count (A020) is 6, must contain values between 2,400 cubic feet and 51,000 cubic feet

- New Rule: Cubic Feet Capacity (A067) of HOPP where Connected Unit Count (A020) is 7, must contain values between 2,800 cubic feet and 59,500 cubic feet
- New Rule: Cubic Feet Capacity (A067) of HOPP where Connected Unit Count (A020) is 8, must contain values between 3,200 cubic feet and 68,000 cubic feet
- New Rule: Cubic Feet Capacity (A067) of HOPP where Connected Unit Count (A020) is 9, must contain values between 3,600 cubic feet and 76,500 cubic feet
- Cubic Feet Capacity (A067)
 - Equipment Group(s): GOND
 - New Rule: Cubic Feet Capacity (A067) of GOND with a blank Connected Unit Count (A020), must contain values between 400 cubic feet and 8,800 cubic feet
 - New Rule: Cubic Feet Capacity (A067) of GOND where Connected Unit Count (A020) is 2, must contain values between 800 cubic feet and 17,600 cubic feet
 - New Rule: Cubic Feet Capacity (A067) of GOND where Connected Unit Count (A020) is 3, must contain values between 1,200 cubic feet and 26,400 cubic feet
 - New Rule: Cubic Feet Capacity (A067) of GOND where Connected Unit Count (A020) is 4, must contain values between 1,600 cubic feet and 35,200 cubic feet
 - New Rule: Cubic Feet Capacity (A067) of GOND where Connected Unit Count (A020) is 5, must contain values between 2,000 cubic feet and 44,000 cubic feet
 - New Rule: Cubic Feet Capacity (A067) of GOND where Connected Unit Count (A020) is 6, must contain values between 2,400 cubic feet and 52,800 cubic feet
 - New Rule: Cubic Feet Capacity (A067) of GOND where Connected Unit Count (A020) is 7, must contain values between 2,800 cubic feet and 61,600 cubic feet
 - New Rule: Cubic Feet Capacity (A067) of GOND where Connected Unit Count (A020) is 8, must contain values between 3,200 cubic feet and 70,400 cubic feet
 - New Rule: Cubic Feet Capacity (A067) of GOND where Connected Unit Count (A020) is 9, must contain values between 3,600 cubic feet and 79,200 cubic feet
- Qual for Inc GRL (B344)
 - Equipment Group(s): HOPP & GOND
 - New Rule: 4-axle equipment having Qualification for Increased Gross Rail Load of 1 or 2 must have Gross Rail Load (A266) that does not exceed 286,000 lbs.
 - New Rule: 4-axle equipment having Qualification for Increased Gross Rail Load of 3 must have Gross Rail Load (A266) that does not exceed 268,000 lbs.
 - New Rule: 4-axle equipment having Qualification for Increased Gross Rail Load of 1 must have a Journal Size (A147) of K, G, or M

- New Rule: 4-axle equipment having Qualification for Increased Gross Rail Load of 2 or 3, and Star Code (A247) blank, must have a Journal Size (A147) of F or K
- New Rule: 4-axle equipment having Qualification for Increased Gross Rail Load of 1, 2, or 3 must have a Wheel Diameter (A294) of 36 or 38
- New Rule: 4-axle equipment with Gross Rail Load (A266) greater than 263,000 lbs. and less than 315,000 lbs., and Star Code (A247) blank, must report Qualification for Increased Gross Rail Load
- New Rule: Equipment having Qualification for Increased Gross Rail Load of 1 or 2, and a Gross Rail Load (A266) less than 286,000 lbs., must have Star Code (A247) of S
- New Rule: Equipment having Qualification for Increased Gross Rail Load of 3, and a Gross Rail Load (A266) less than 268,000 lbs, must have Star Code (A247) of S
- Unit Load Limit (A300)
 - Equipment Group(s): GOND & HOPP
 - Updated rule from "Unit Load Limit must not be reported if the Connected Unit Count (A020) is not reported" to show as "Unit Load Limit cannot be reported if the Connected Unit Count (A020) is not reported"
- Unit Tare Weight (A299)
 - Equipment Group(s): GOND
 - Updated rule from "Unit Tare Weight for Gondolas must be less than or equal 110,000 lbs." to show as "Unit Tare Weight for Gondolas must be less than or equal 150,000 lbs."
- Roof Type (A226)
 - Equipment Group(s): GOND & HOPP
 - Removed Mechanical Description (UMMD) of "HTSR" from GOND and HOPP validation rules
 - Updated rule from "Trough Hatch Roofs are only applicable to Gondolas and Hoppers with Mechanical Designation (UMMD) of GBR, GBSR, GWSR, HKR, HMSR, HTR, HTSR or LO" to show as "Trough Hatch Roofs are only applicable to Gondolas and Hoppers with Mechanical Designation (UMMD) of GBR, GBSR, GWSR, HKR, HMSR, HTR, or LO"
 - Updated rule from "Mechanical Designations (UMMD) of GBR, GBSR, GWSR, GTR, HKR, HMSR, HTR, HTSR or LO require that Roof Type be set" to show as "Mechanical Designations (UMMD) of GBR, GBSR, GWSR, GTR, HKR, HMSR, HTR, or LO require that Roof Type be set"
- Gross Rail Load/Weight (A266)
 - Equipment Group(s): GOND & HOPP
 - Removed all current notes in Data Specifications Manual and replaced with notes from the Gross Rail Load/Weight (A266) element for BOXC.

- Unit Tare Weight (A299)
 - Equipment Group(s): HOPP
 - Removed Rule: Unit Tare Weight for Gondolas must be less than or equal 110,000 lbs.
 - Removed Rule: Unit Tare Weight for Gondolas must be greater than or equal 30,000 lbs.
- Unit Tare Weight (A299)
 - Equipment Group(s): GOND
 - Removed Rule: Unit Tare Weight for Boxcars and Refrigerators must be greater than or equal 16,000 lbs.
 - Removed Rule: Unit Tare Weight for Hoppers must be greater than or equal 23,000 lbs.
 - Removed Rule: Unit Tare Weight for Hoppers must be less than 120,000 lbs.
- Unit Tare Weight (A299)
 - Equipment Group(s): HOPP & GOND
 - Removed Rule: Unit Tare Weight for Boxcars must be less than or equal 160,000 lbs.
 - Removed Rule: Unit Tare Weight for Refrigerators must be less than or equal 140,000 lbs.
 - Removed Rule: Unit Tare Weight for Tanks must be greater than 31,000 lbs.
 - Removed Rule: Unit Tare Weight for Tanks must be less than 200,000 lbs.
 - Removed Rule: Unit Tare Weight for Vflats must be greater than 55,000 lbs.
 - Removed Rule: Unit Tare Weight for VFlats must be less than 136,000 lbs.
 - Removed Rule: Unit Tare Weight for IFLT's must be greater than 10,000 lbs.
 - Removed Rule: Unit Tare Weight for IFLT's must be less than 72,000 lbs.
 - Removed Rule: Unit Tare Weight for all flats other than VFlats with ETC Q___ must be greater than 23,000 lbs.
 - Removed Rule: Unit Tare Weight for all flats other than VFlats with ETC Q___ must be less than 500,000 lbs.
- Qual for Inc GRL (B344)
 - Equipment Group(s): HOPP & GOND
 - Removed Rule: 4 Axle Cars reporting Increased Gross Rail Load (IGRL) of 3, or reporting IGRL of 1 or 2 and having an S Star Code must have a Gross Weight that does not exceed 286,000 lbs.
 - Removed Rule: 4 Axle Cars with Increased Gross Rail Load (IGRL) of 2 or 3 must have a Journal Size of F or K
 - Removed Rule: 4 Axle Cars with Increased Gross Rail Load (IGRL) of 1 or 2 having no Star Code and a Journal Size of other than F or K, must have a Gross Weight greater than or equal to 263,000 lbs. and less than or equal to 286,000 lbs.

- Removed Rule: Unstarred 4 Axle Cars with Increased Gross Rail Load of 2 or IGRL of 1 and Journal Size K must have a Wheel Size of 36 inches
 - Removed Rule: 4 axle equipment with Increased Gross Rail Load (IGRL) of 1 and having no Star Code (A247) must have a Journal Size (A147) of G, K, or M
 - Removed Rule: Unstarred 4 Axle Cars with GRL of 315,000 and no IGRL reported and Unstarred cars with Journal Size of G or M must have a Wheel Size of 38 inches
 - Removed Rule: Unstarred 4 axle cars must report Qualifications for Increased GRL if the GRL is between 263,000 and 315,000
 - Removed Rule: 4 Axle Rule 88 Cars require a Wheel Size of 36 or 38 inches for Gross Weight greater than 263,000 and less than or equal to 286,000 lbs.
- Gross Rail Load/Weight (A266)
 - Equipment Group(s): HOPP & GOND
 - Removed Rule: UnStarred 4 Axle Cars with a Journal Size of G must have a Gross Weight equal to 315,000 lbs.
 - Unit Cubic Feet Capacity (A065)
 - Equipment Group(s): HOPP & GOND
 - Removed Rule: Unit Cubic Feet Capacity for Boxcars must be less than or equal 11000 cubic feet
 - Removed Rule: Unit Cubic Feet Capacity for Refrigerators must be greater than or equal 1400 cubic feet
 - Removed Rule: Unit Cubic Feet Capacity for Refrigerators must be less than or equal 6700 cubic feet
 - Tare Weight (A259)
 - Equipment Group(s): GOND
 - Removed Rule: Tare Weight for all non-articulated GOND must be less than 110000 lbs.
 - Center of Gravity Empty (A045)
 - Equipment Group(s): FLAT
 - Removed Rule: Center of Gravity Empty for Mechanical Designations (UMMD) of FM, FMS, FD, FB, FBS, FW, FL, LP, or LS must be below the maximum of 59 inches

Got Questions? Get Answers.

If you have any questions about Railinc's Umler system or this release, contact the Railinc Customer Support Center by email at csc@railinc.com or by phone at 877-724-5462.