

### Release Notes for September 14, 2017, Umler System Release

The Thursday, September 14, 2017, Umler system release includes functional enhancements to Umler which includes docket implementation work as directed by the Umler Committee as well as System Validation Task Force directed work to implement new elements, element changes/updates, as well as modifications to permissible values and business rules within the application.

Below are the complete details of this release.

- **Permissible Value Updates - Updates/Removals/New Values**
  - Energy Management Systems (A303)
    - Equipment Group(s): LOCO
    - New Permissible Value: LDP - Integrated Leader/PTC
    - New Permissible Value: LPS - Integrated Leader/PTC with Smart Consist
    - New Permissible Value: TOP - Integrated GE Trip Optimizer/PTC
    - New Permissible Value: TPC - Integrated GE Trip Optimizer/PTC with Smart Consist
    - New Permissible Value: TPH - Integrated GE Trip Optimizer/PTC with Smart HPT
  - Energy Management Systems (A303)
    - Equipment Group(s): LOCO
    - Removed Permissible Value: TA - GE Trip Advisor
  - PTC System Control (A006)
    - Equipment Group(s): LOCO
    - New Permissible Value: B - Dual (ACSES and Train Guard)
    - New Permissible Value: Q - Train Guard
  - Single Length Loading Config (B288)
    - Equipment Group(s): IFLT
    - Updated Permissible Value Definition: SA6 - IBC Container only, Bottom: 2-20ft or 1-40ft; Top: 1 - 40ft, 45ft, 48ft or 53ft container
    - Updated Permissible Value Definition: SA7 - IBC Container only, Bottom: 2-20ft or 1-40ft; Top: 1 - 40ft, 45ft, or 48ft container; 53ft container can be loaded in the A and B units if the C unit has a 40ft or 45ft container loaded in it
    - Updated Permissible Value Definition: SA8 - IBC Container and Trailer capability, Bottom: 2-20ft or 1-40ft container or 1-28ft trailer; Top: 1 - 40ft, 45ft, or 48ft container; 53ft container can be loaded in the A and B units if the C unit has a 40ft container
  - Single Length Loading Config (B288)
    - Equipment Group(s): IFLT

- New Permissible Value: SD7 - 5Well IBC 2-20ft or 1-40ft or 1-45ft or 1-48ft container(s) in the end wells and 1-40ft or 1-45ft or 1-48ft container in the intermediate wells with 1-40ft or 1-45ft or 1-48ft or 1-53ft stacked on top of all wells, with SGL TRLR trailer up to 53 ft long, hitched
- Equipment Builder (A035)
  - Equipment Group(s): FLAT
  - New Permissible Value: HZGX -Herzog Railroad Services Inc.
- Equipment Builder (A035)
  - Equipment Group(s): GOND
  - New Permissible Value: KRCX - Kimball Railcar Services
- Air Brake Model Number (ABMD)
  - Equipment Group(s): LOCO
  - New Permissible Value: 26LIC
  - New Permissible Value: 26LPS
  - New Permissible Value: 6DS
  - New Permissible Value: 6ET
  - New Permissible Value: 8ET
  - New Permissible Value: K14
  - New Permissible Value: 14ET
- Air Brake Model Number (ABMD)
  - Equipment Group(s): LOCO
  - Removed Permissible Value: OTHER
- Roof Type (A226)
  - Equipment Group(s): BOXC
  - Removed Permissible Value: 4 - Standard roof hatches
- Roof Type (A226)
  - Equipment Group(s): HOPP
  - Updated Permissible Value Definition: 4 - Round hatches on center line of car
  - Updated Permissible Value Definition: 8 - Round hatches offset from center line of car
  - Updated Permissible Value Definition: 9 - Rectangular or square hatches offset from center line of car
- Plate Code (A046)
  - Equipment Group(s): GOND & HOPP
  - Removed Permissible Value: L - Plate Code L
  - Removed Permissible Value: I - Plate Code I
  - Removed Permissible Value: H - Plate Code H
  - Removed Permissible Value: A - Clearance Equals Plate B and Extreme Width is Greater Than 10'08 inches and Does Not Exceed 10'10 inches

- **Permissible Value Range Updates**

- Bulkhead Top Width (B038)
  - Equipment Group(s): GOND
  - New Minimum Value: Updated minimum permissible value from "2 feet 1 inches" to "8 feet 0 inches"
- Outside Extreme Height (A185)
  - Equipment Group(s): GOND
  - New Minimum Value: Updated minimum permissible value from "2 feet 0 inches" to "4 feet 0 inches"
- Inside Length (A135)
  - Equipment Group(s): VFLT
  - New Maximum Value: Updated maximum permissible value from "99 feet 3 inches" to "145 feet 0 inches"
- Load Limit (LDLT)
  - Equipment Group(s): GOND
  - New Maximum Value: Updated maximum permissible value from "2700000" to "2565000"
- Unit Cubic Feet Capacity (A065)
  - Equipment Group(s): HOPP
  - New Maximum Value: Updated maximum permissible value from "8800" to "8500"
- Outside Length (OSLG)
  - Equipment Group(s): HOPP
  - New Maximum Value: Updated maximum permissible value from "2330 feet 0 inches" to "720 feet 0 inches"
- Truck Center Length (A276)
  - Equipment Group(s): HOPP
  - New Maximum Value: Updated maximum permissible value from "76 feet 11 inches" to "64 feet 0 inches"
- Outside Upper Eaves Width (A194)
  - Equipment Group(s): HOPP
  - New Maximum Value: Updated maximum permissible value from "10 feet 8 inches" to "11 feet 2 inches"
- Outside Lower Eaves Hght (A189)
  - Equipment Group(s): HOPP
  - New Maximum Value: Updated maximum permissible value from "17 feet 11 inches" to "16 feet 0 inches"
- Outside Lower Eaves Hght (A189)
  - Equipment Group(s): GOND

\*Indicates this is a new element.

- New Maximum Value: Updated maximum permissible value from "17 feet 11 inches" to "17 feet 0 inches"
- Outside Extreme Width (A186)
  - Equipment Group(s): HOPP
  - New Maximum Value: Updated maximum permissible value from "11 feet 10 inches" to "12 feet 0 inches"
- End Door Width (A082)
  - Equipment Group(s): GOND
  - New Maximum Value: Updated maximum permissible value from "11 feet 0 inches" to "10 feet 6 inches"
- End Door Height (A080)
  - Equipment Group(s): GOND
  - New Maximum Value: Updated maximum permissible value from "10 feet 10 inches" to "10 feet 11 inches"
- Outside Length (OSLG)
  - Equipment Group(s): GOND
  - New Minimum Value: Updated minimum permissible value from "24 feet 0 inches" to "28 feet 0 inches"
  - New Maximum Value: Updated maximum permissible value from "2330 feet 0 inches" to "792 feet 0 inches"
- Bulkhd Height Abov Pltfrm (B035)
  - Equipment Group(s): GOND
  - New Minimum Value: Updated minimum permissible value from "1 feet 0 inches" to "8 feet 0 inches"
  - New Maximum Value: Updated maximum permissible value from "16 feet 3 inches" to "11 feet 8 inches"
- Truck Center Length (A276)
  - Equipment Group(s): GOND
  - New Minimum Value: Updated minimum permissible value from "15 feet 0 inches" to "17 feet 0 inches"
  - New Maximum Value: Updated maximum permissible value from "76 feet 11 inches" to "67 feet 0 inches"
- Outside Upper Eaves Hght (A193)
  - Equipment Group(s): HOPP
  - New Minimum Value: Updated minimum permissible value from "2 feet 0 inches" to "7 feet 0 inches"
  - New Maximum Value: Updated maximum permissible value from "17 feet 11 inches" to "17 feet 0 inches"
- Outside Extreme Width (A186)
  - Equipment Group(s): GOND
  - New Minimum Value: Updated minimum permissible value from "7 feet 0 inches" to "8 feet 5 inches"

\*Indicates this is a new element.

- New Maximum Value: Updated maximum permissible value from "11 feet 10 inches" to "11 feet 6 inches"
- Outside Extreme Height (A185)
  - Equipment Group(s): HOPP
  - New Minimum Value: Updated minimum permissible value from "2 feet 0 inches" to "10 feet 0 inches"
  - New Maximum Value: Updated maximum permissible value from "18 feet 10 inches" to "17 feet 0 inches"
- Inside Length (A135)
  - Equipment Group(s): GOND
  - New Minimum Value: Updated minimum permissible value from "19 feet 0 inches" to "21 feet 0 inches"
  - New Maximum Value: Updated maximum permissible value from "85 feet 0 inches" to "77 feet 0 inches"

- **Element Updates (New Elements/Element Changes & Updates)**
  - LBP Reduction (L025)\*
    - Equipment Group(s): LOCO
    - Element Description: Limiting Brake Pressure Reduction indicates whether or not a locomotive is equipped with software or hardware controls to limit a penalty brake pipe pressure reduction to no more than 2/7 of the feed valve pressure
    - Permissible Values:
      - Y - Yes
      - N - No
    - Presentation Group: Blue Card
    - Element is Mandatory
  - PTC Operating Status (L024)\*
    - Equipment Group(s): LOCO
    - Element Description: Indicates whether or not a locomotive is in a PTC operable state
    - Permissible Values:
      - Y - Yes
      - N - No
    - Presentation Group: Blue Card
  - Power Cut-Off Switch (L026)\*
    - Equipment Group(s): LOCO
    - Element Description: Device / circuit on a locomotive, that when opened, disables tractive effort
    - Permissible Values:
      - Y - Yes
      - N - No
    - Presentation Group: Blue Card
    - Element is Mandatory
  - Dynamic Brake Interlock (L027)\*
    - Equipment Group(s): LOCO
    - Element Description: Indicates what type of dynamic brake interlock is currently configured on the locomotive
    - Permissible Values:
      - 1 - Automatic brake application is restored (reapplies) when dynamic brake is released
      - 2 - Automatic brake application does not restore (does not reapply) when dynamic brake is released
      - N - Not equipped with Dynamic Brake Interlock (DBI)
    - Presentation Group: Blue Card
    - Element is Mandatory
    - Element defaults to blank
  - IFLT 20ft Container Lmt (B548)\*
    - Equipment Group(s): IFLT

\*Indicates this is a new element.

- Element Description: Indicates the maximum weight 20 foot container that a unit can carry, when all 20 foot container positions on the car are simultaneously loaded with 20 foot containers at their maximum weights
  - Permissible Values:
    - 0 - Not Equipped
    - 37500 - 37,500 lbs.
    - 44800 - 44,800 lbs.
    - 52900 - 52,900 lbs.
    - 57500 - 57,500 lbs.
    - 61500 - 61,500 lbs.
    - 64000 - 64,000 lbs.
    - 67200 - 67,200 lbs.
    - 71650 - 71,650 lbs.
    - 75000 - 75,000 lbs.
    - 79370 - 79,370 lbs.
  - Presentation Group: Unit Segment
- IFLT 20 Ft Cont Capable (B549)\*
  - Equipment Group(s): IFLT
  - Element Description: Identifies if the unit segment is capable of loading 20 foot containers based on the Single Length Loading Configuration (B288)
  - Permissible Values:
    - Y - Yes
    - N - No
    - Blank
  - Presentation Group: Unit Segment
  - System Generated [based on Single Length Loading Config (B288) value selected]
- Operating Brakes (A182)
  - Equipment Group(s): BOXC, GOND, HOPP, MISC, TANK, IFLT, & PSGR
  - Element is mandatory with this release.
- Axle Count (A024)
  - Equipment Group(s): LOCO, MISC, STWH, & PSGR
  - Element is mandatory with this release.
- Inside Width (A138)
  - Equipment Group(s): GOND
  - Element is mandatory with this release.
- Gondola with Drop Ends (B103)
  - Equipment Group(s): GOND
  - New Element Name: Updated element name from “Gondola with Drop Ends” to “Gondola With Drop Ends”
- Truck Center Length (A276)

\*Indicates this is a new element.

- Equipment Group(s): GOND & HOPP
  - New Element Description: Updated element description from “The center length between two trucks (The pivot point of the equipment)” to “The length between the centers of the two truck systems”
- Outside Upper Eaves Width (A194)
  - Equipment Group(s): GOND & HOPP
  - New Element Description: Updated element description from “The outside width of the overhanging lower edge of a roof” to “The width between the outside uppermost corners of the equipment”
- Outside Upper Eaves Hght (A193)
  - Equipment Group(s): GOND & HOPP
  - New Element Description: Updated element description from “The outside height the overhanging lower edge of a roof” to “Height from the top of rail to the uppermost outside corner of the equipment”
- Inside Height (A133)
  - Equipment Group(s): GOND & HOPP
  - New Element Description: Updated element description from “The inside height of the equipment from the floor to the lowest point of the interior ceiling” to “The inside height of the equipment from the floor to the top of the side, or to the lowest point of the interior ceiling”
- End Door Width (A082)
  - Equipment Group(s): GOND & HOPP
  - New Element Description: Updated element description from “The width of the end door in inches” to “The width of the end door opening in inches”
- End Door Height (A080)
  - Equipment Group(s): GOND & HOPP
  - New Element Description: Updated element description from “The height of the end door in inches” to “The height of the end door opening in inches”
- Operating Brakes (A182)
  - Equipment Group(s): BOXC, GOND, HOPP, MISC, TANK, IFLT, & PSGR
  - New Element Description: Updated element description from “The number of brakes on an articulated equipment (Excludes hand brakes)” to “The number of brakes on an equipment (Excludes hand brakes)”
- Inside Length (A135)
  - Equipment Group(s): VFLT
  - New Note in Data Specification Manual: “If the Intermediate Connector Style (B115) equals “D - Drawbar”, report the shortest dimension of a unit in the set.”



- **Business Rule Changes - New/Changed or Updated/Removed Rules**
  - IFLT 20 Ft Cont Capable (B549)
    - Equipment Group(s): IFLT
    - New Rule: System generation of “Y” or “N” based on Single Length Loading Config (B288) provided.
  - Operating Brakes (A182)
    - Equipment Group(s): BOXC, GOND, HOPP, MISC, TANK, IFLT, & PSGR
    - New Rule: Operating Brakes must be reported for all equipment
  - Unit Inside Length (A301)
    - Equipment Group(s): VFLT
    - New Rule: Unit Inside Length must be reported if Connected Unit Count (A020) is reported
  - Inside Length (A135)
    - Equipment Group(s): VFLT
    - New Rule: If Connected Unit Count (A020) is reported, and Intermediate Conn Style (B115) is “A - Articulated”, the Inside Length of Vehicular Flat must be greater than or equal to 139 feet 0 inches
  - Inside Length (A135)
    - Equipment Group(s): VFLT
    - New Rule: If Connected Unit Count (A020) is not reported, Inside Length of Vehicular Flat must be less than or equal to 99 feet 3 inches
  - Unit Cubic Feet Capacity (A065)
    - Equipment Group(s): GOND
    - New Rule: Unit Cubic Feet Capacity for Gondolas must be less than or equal to 8800 cubic feet
  - Load Limit (LDLT)
    - Equipment Group(s): GOND
    - Updated Rule: Updated from “Load Limit (LDLT) of GOND where Connected Unit Count (A020) is 9, must contain values between 630,000 lbs. and 2,565,000 lbs.” to “Load Limit (LDLT) of GOND where Connected Unit Count (A020) is 9, must contain values between 630,000 lbs. and 2,565,000 lbs.”
  - Load Limit (LDLT)
    - Equipment Group(s): GOND
    - Updated Rule: Updated from “Load Limit (LDLT) of GOND where Connected Unit Count (A020) is 8, must contain values between 560,000 lbs. and 2,400,000 lbs.” to “Load Limit (LDLT) of GOND where Connected Unit Count (A020) is 8, must contain values between 560,000 lbs. and 2,280,000 lbs.”
  - Load Limit (LDLT)
    - Equipment Group(s): GOND

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and 300,000 lbs.” to “Load Limit (LDLT) of GOND with a blank Connected Unit Count (A020), must contain values between 70,000 lbs. and 285,000 lbs.”

- FRA Reflectorization (B096)
  - Equipment Group(s): PSGR
  - Updated Rule: Updated the following rule to exclude PSGR equipment group, “Reflectorization is mandatory for all equipment after November 28, 2015”
- Inside Length (A135)
  - Equipment Group(s): VFLT
  - Updated Rule: Updated from “Inside Length/Inside Platform Length must be less than or equal to Outside Length” to “Inside Length must be at least 42 inches less than Outside Length (OSLG)”
- Roof Type (A226)
  - Equipment Group(s): HOPP
  - Updated Rule: Updated from “Round Roof Hatches at centerline of cars are only applicable to Gondolas or Covered Hoppers with Mechanical Designation of GTR, or LO” to “Round hatches on center line of car are only applicable for Covered Hoppers with Mechanical Designation (UMMD) of LO”
- End Door Height (A080)
  - Equipment Group(s): GOND
  - Removed Rule: “End Door Height must be reported for Drop-End Gondolas (Mechanical Designation of GB, GTS, GT, GBS, GBSR, MWD, or MW)”
- Plate Code (A046)
  - Equipment Group(s): GOND/HOPP
  - Removed Note in Data Specification Manual: “For ARTICULATED/MULTI-UNIT SET report the most restrictive clearance plate of UNIT in the set.”
  - Removed Rule: “Plate Code A is applicable to Gondolas only with a Built/Rebuilt (Birth) Date on or before December 31, 1975”
  - Removed Rule: “Plate Code A is only applicable to Freight cars”
- Wheel Diameter (A294)
  - Equipment Group(s): BOXC
  - Removed Rule: “UnStarred Cars with Gross Weight of 286,000 lbs. and Increased Gross Rail Load of 2 must have a Wheel Diameter of 36 inches”
- Operating Brakes (A182)
  - Equipment Group(s): BOXC, GOND, HOPP, MISC, TANK, IFLT, PSGR
  - Removed Rule: “Operating Brakes can only be reported for articulated equipment”

- Unit Inside Length (A301)
  - Equipment Group(s): VFLT
  - Removed Rule: “Unit Inside Length for Flats, IFlats and Vflats must be less than or equal to 99 feet 4 inches.”
  - Removed Rule: “Unit Inside Length for Flats other than Vflats must be greater than or equal to 20 feet.”
  - Removed Rule: “Unit Inside Length for Vflats must be greater than or equal to 69 feet”
  
- Inside Length (A135)
  - Equipment Group(s): VFLT
  - Removed Rule: “Is not applicable to Inside Length/Inside Platform Length for Trailer/Container - Bulk Hopper, Tank or Flat (Mechanical Designation of UH, or UTK)”
  
- Roof Type (A226)
  - Equipment Group(s): BOXC
  - Removed Rule: “Standard roof hatches are only applicable to Boxcars with Mechanical Designation (UMMD) of XP”
  
- Roof Type (A226)
  - Equipment Group(s): HOPP
  - Removed Rule: “Format A Mechanical Designations must agree with option 9”
  
- Roof Type (A226)
  - Equipment Group(s): GOND
  - Removed Rule: “Round Roof Hatches at centerline of cars are only applicable to Gondolas or Covered Hoppers with Mechanical Designation of GTR or LO”

**Got Questions? Get Answers.**

If you have any questions about Railinc’s Umler system or this release, contact the Railinc Customer Success Center by email at [csc@railinc.com](mailto:csc@railinc.com) or by phone at 877-724-5462.