RAILINC | Umler® Release Notes

Release Notes for March 18, 2021 Umler System Release

The Umler system release scheduled for Thursday, March 18, 2021, includes functional enhancements to Umler which includes docket implementation work as directed by the Umler Committee 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.

Enhanced Process for Transferring Ownership (Replaces AAR Form 88-C)

- Per Circular C-13750, owners will have visibility (via CSV download) in Umler to the current fields listed on Form 88-C prior to accepting confidential data access rights during the Umler transfer process.

Updated ABT 5/8 Year (DU58) Calculation

- Updated the DU58 date calculation to use the day that the ABT was performed instead of using the first day of the reported month.

Conflict (CFLT) Tickler to include all errors for equipment

- Enhanced CFLT tickler email will include all errors for a single equipment ID. The email will include the equipment ID, status code, element ID, element name, element value, response code, and error message.

New Elements for Locomotive Distributed Power

- Newly developed Distributed Power features are starting to deploy on some railroads. These features offer appreciable operational benefits, but only if locomotives with the features are assigned to the necessary positions (Lead/Remote) in a train.

New Element Do Not Load After

- A new confidential element for Umler owners to populate with a date to not load equipment before going out of service. This element becomes non-confidential 30 days before the date value in the element.
- Railinc will be populating this element after the release by using the End of Service Date minus 30 days. Railinc will be transmitting Train II messages in batches of 5,000/hour.

- **Element Updates (New Elements/Element Changes & Removals)**
  - Do Not Load After (B590) *
    - Equipment Group(s): BOXC, GOND, HOPP, FLAT, IFLT, VFLT, TANK
    - New Confidential Element
    - Element Description:
      - Equipment should not be loaded after date shown in the element
    - Presentation Group: General
    - Validation Rules:

*Indicates this is a new element.

- Do Not Load After (B590) cannot be updated thirty days prior to the date shown in the element.
- Do Not Load After (B590) cannot be updated within thirty days of the End of Service Date (B078).
- Do Not Load After (B590) date cannot be on or after the End of Service (B078) date.

- Notes:
  - The element will be initially populated by End of Service (B078) minus 30 days.
  - Data becomes non-confidential thirty days prior to the Do Not Load After (B590) date.

- Owner-Provided Loaded Net Braking Ratio (B552)
  - Equipment Group(s): PSGR
  - Existing Element Added to Equipment Group
  - Element Description:
    - Indicates an alternate minimum loaded net braking ratio provided by owner (in percent)
  - Presentation Group: Train Service

- Owner-Provided Empty Braking Ratio (B554)
  - Equipment Group(s): PSGR
  - Existing Element Added to Equipment Group
  - Element Description:
    - Indicates an owner supplied alternate empty braking ratio (in percent)
  - Presentation Group: Train Service

- DP System Type (B578) *
  - Equipment Group(s): LOCO
  - New Element
  - Element Description:
    - The Distributed Power system type.
  - Presentation Group: Specification
  - Permissible Value(s):
    - L3 – Locotrol 3
    - IPM – IPM
    - LXA – LXA
  - Validation Rule(s):
    - DP System Type (B578) must be reported if Distributed Power Eqpd (B070) is Y
  - Note(s):
    - IPM includes EIPM

- DP Remote EOT Emergency Test (B579) *
  - Equipment Group(s): LOCO
  - New Element
  - Element Description:

*Indicates this is a new element.

        - The Distributed Power system is capable of running an end of train Emergency Test.
    - Presentation Group: Specification
    - Permissible Value(s):
        - Y – Yes
        - N – No
    - Validation Rule(s):
        - DP Remote EOT Emerg Test (B579) must be reported if Distributed Power Eqpd (B070) is Y.
    - Note(s):
        - This feature allows verification of end of train emergency braking functionality when using a tail end DP Remote and no traditional EOT device. DP accomplishes this by providing an EOT test button in the DP Remote Session screen on the DP Lead locomotive, requiring the closing of the angle cock behind the Lead, and putting the Lead's automatic brake handle in emergency. DP sends a message to all mid-train Remotes to ignore the impending emergency command and ensures the tail-end Remote is able to initiate an emergency on its own, based on the received command, not the brake pipe. This functionality is similar to a conventional EOT Dump test, which is performed after HOT-EOT arming.
        - To use this functionality, all DP units on the train must be equipped with this feature.

- DP BP Test Supplemental Reduction (B580) *
    - Equipment Group(s): LOCO
    - New Element
    - Element Description:
        - The Distributed Power system has an enhanced brake pipe test algorithm.
    - Presentation Group: Specification
    - Permissible Value(s):
        - Y – Yes
        - N – No
    - Validation Rule(s):
        - DP BP Test Supplemental Reduction (B580) must be reported if Distributed Power Eqpd (B070) is Y.
    - Note:
        - This functionality improves the likelihood of passing the DP brake pipe test on longer trains and in cold temperatures. After failing a brake pipe test, the algorithm makes a supplemental reduction on the next test. To use this functionality, only the Lead DP unit must be equipped with this feature.

- DP Remote EOT Emergency Test (B581) *
    - Equipment Group(s): LOCO
    - New Element
    - Element Description:

*Indicates this is a new element.

        - The Distributed Power system is capable of automatically cutting in the brake valve after Comm Loss Idle Down (CLID)
    - Presentation Group: Specification
    - Permissible Value(s):
        - Y – Yes
        - N - No
    - Validation Rule(s):
        - DP Comm Loss Idle Down BV Cut In (B581) must be reported if Distributed Power Eqpd (B070) is Y.
    - Note(s):
        - This feature enables automatic recovery of the brake valve on a DP Remote after a CLID event if certain conditions are met. Prior to the CLID, the DP must have been in NORMAL mode and the brake valve Cut-in (i.e., the CLID was due to unexpected airflow). After the CLID, if the following conditions are met, the Remote will automatically Cut-in the brake valve without requiring a brake application/release: (1) radio communications is restored within 90 minutes of CLID; (2) the Lead is commanding automatic brake RELEASE at the time radio communication is restored; and (3) operator commands Remote back to NORMAL mode prior to the train being stopped for longer than 10 minutes. If any of the above conditions are not met, the Remote will enforce normal CLID recovery interlocks and will require the operator to perform the usual brake application and release.
        - To use this functionality, only the DP Remote must be equipped with this feature.

- DP DB Comm Loss Idle Down At 0 MPH (B582) *
    - Equipment Group(s): LOCO
    - New Element
    - Element Description:
        - The Distributed Power system on a Remote is capable of idling the Dynamic Brake when locomotive speed reaches zero mph after a Comm Loss Idle Down event.
    - Presentation Group: Specification
    - Permissible Value(s):
        - Y – Yes
        - N - No
    - Validation Rule(s):
        - DP DB Comm Loss Idle Down At 0 MPH (B582) must be reported if Distributed Power Eqpd (B070) is Y.
    - Note:
        - To use this functionality, only the DP Remote unit must be equipped with this feature.

- DP Setout Mode With BV Cut In (B583) *
    - Equipment Group(s): LOCO
    - New Element
    - Element Description:

*Indicates this is a new element.

        - The Distributed Power system has the ability to leave the Remote Brake Valve Cut-In while in SETOUT Mode.
    - Presentation Group: Specification
    - Permissible Value(s):
        - Y – Yes
        - N - No
    - Validation Rule(s):
        - DP Setout Mode With BV Cut In (B583) must be reported if Distributed Power Eqpd (B070) is Y.
    - Note(s):
        - This feature allows the DP Remote to maintain the pressure in the brake pipe, avoiding an Emergency Application.
        - To use this functionality, both the Lead and individual Remote must be equipped with this feature

- DP Incremental Link/Unlink (B584) *
    - Equipment Group(s): LOCO
    - New Element
    - Element Description:
        - The Distributed Power system on a Remote is capable of being linked and unlinked without impact to other linked units.
    - Presentation Group: Specification
    - Permissible Value(s):
        - Y – Yes
        - N - No
    - Validation Rule(s):
        - DP Incremental Link/Unlink (B584) must be reported if Distributed Power Eqpd (B070) is Y.
    - Note(s):
    - The feature allows an operator to link new Remotes or drop linked Remotes without unlinking the train.
    - To use this functionality for incremental linking, the Lead must be equipped with this feature.
    - To use this functionality to unlink a Remote, both the Lead and the Remote must be equipped with this feature

- DP Suspend Mode (B585) *
    - Equipment Group(s): LOCO
    - New Element
    - Element Description:
        - The Distributed Power system is capable of Suspend Mode enabling a Remote to be operated locally in a conventional manner.
    - Presentation Group: Specification
    - Permissible Value(s):
        - NBPT – Brake Pipe Test is not required on exiting Suspend Mode.
        - YBPT – Brake Pipe Test is required on exiting Suspend Mode.
        - N – No
    - Validation Rule(s):

*Indicates this is a new element.

        - DP Suspend Mode (B585) must be reported if Distributed Power Eqpd (B070) is Y.
    - Note(s):
        - This feature allows a DP Remote to be temporarily suspended from DP operation. In Suspended Mode, the DP Remote is functions as a conventional, non-DP unit, providing a local operator full control over propulsion and air brakes to perform movements. In Suspended Mode, the DP system maintains link information. After movements are completed and the train is recoupled, the operator can resume normal DP operation from the DP Lead without having to re-link the train. The need for the operator to run a Brake Pipe Test depends on the permissible value of this element.
        - To use this functionality, the Lead and the individual Remote being suspended must be equipped with this feature. To resume operations without a brake pipe test only the Lead must have the NBPT attribute.

- DP Lead Remote Swap (B586) *
    - Equipment Group(s): LOCO
    - New Element
    - Element Description:
        - The Distributed Power system is capable of turning the DP Lead into the DP Remote and the Remote into the Lead.
    - Presentation Group: Specification
    - Permissible Value(s):
        - Y – Yes
        - N - No
    - Validation Rule(s):
        - DP Lead Remote Swap (B586) must be reported if Distributed Power Eqpd (B070) is Y.
    - Note(s):
        - This feature enables swapping of the Lead and Remote configuration in a DP train without undergoing a unlink/relink procedure.
        - To use this functionality, the Lead and Remotes must be equipped with this feature.

- Loco Controlled Tractive Effort (B587) *
    - Equipment Group(s): LOCO
    - New Element
    - Element Description:
        - The Locomotive is capable of Controlled Tractive Effort (CTE).
    - Presentation Group: Specification
    - Permissible Value(s):
        - Y – Yes
        - N - No
    - Validation Rule(s):

*Indicates this is a new element.

        - Loco Controlled Tractive Effort (B587) must be reported if Distributed Power Eqpd (B070) is Y.
    - Note(s):
        - This is a Locomotive characteristic, not a Distributed Power characteristic.

- DP Selection of CTE (B588) *
    - Equipment Group(s): LOCO
    - New Element
    - Element Description:
        - The Distributed Power system on a DP Lead is capable of selecting Controlled Tractive Effort (CTE) on a DP Remote.
    - Presentation Group: Specification
    - Permissible Value(s):
        - L – On Linking
        - A – Anytime
        - N – No
    - Validation Rule(s):
        - DP Selection of CTE (B588) must be reported if Distributed Power Eqpd (B070) is Y.
    - Note(s):
        - To use this functionality, the Lead must be equipped with this feature and the Remote should be equipped with CTE.
        - **On Linking**: After linking, DP presents the operator with the choice of putting the Remote into RUN CTE or RUN FTE mode. The Remote will stay in the chosen RUN mode until the end of the DP session. To toggle the Remote between CTE and FTE, the operator must stop, unlink, and relink. Note, the Lead does not know if the Remote supports CTE. If the operator selects RUN CTE mode, the Lead will send a CTE command to the Remote and an unsupported Remote will respond with a status message saying it is still in FTE.
        - **Anytime**: After linking, DP allows the operator to toggle between CTE and FTE at any time (but must be stopped). DP does not require unlinking and relinking. Note: The Lead does not know if the Remote supports CTE. The operator can attempt to change the Remote RUN mode to CTE, but the unsupported Remote will respond saying it is still in FTE.

- DP Elimination Transition Penalty (B589) *
    - Equipment Group(s): LOCO
    - New Element
    - Element Description:
        - The Distributed Power system will not enforce a penalty brake application upon entering DP.
    - Presentation Group: Specification
    - Permissible Value(s):
        - Y – Yes
        - N - No

*Indicates this is a new element.

        - Validation Rule(s):
            - DP Elimination Transition Penalty (B589) must be reported if Distributed Power Eqpd (B070) is Y.
        - Note(s):
            - On a Remote, the DP system will no longer initiate a penalty brake application when DP is set up that locomotive.
            - On a Lead, the DP system will no longer initiate a penalty brake application when linking.
            - To benefit from this functionality, the Lead and all Remotes must be equipped with this feature.

- **Permissible Value/Range Updates - Updates/Removals/New Values**

    - Distributed Power Equipped (B070)
        - Equipment Group(s): LOCO
        - Added Permissible Value:
            - N – No

- **Business Rule Changes - New/Changed or Updated/Removed Rules**

    - Bottom Outlet Fitting Type (A308)
        - Equipment Group(s): TANK
        - Updated Rule(s):
            - From: Bottom Outlet Type must be reported UNEQUIPPED if the Stencil Class (A237) is 105xxx, 111A60W5, 111A60W7, 111A100W5, 111A100W4, 111A100W7, 112xxx, or 211A60W7
            - To: Bottom Outlet Type must be reported as S (Sump) or U (Unequipped) if the Stencil Class (A237) is 105xxx, 111A60W5, 111A60W7, 111A100W5, 111A100W4, 111A100W7, 112xxx, or 211A60W7

    - CPC-1232 Compliant (B522)
        - Equipment Group(s): TANK
        - Updated Rule(s):
            - Add '117R100W' to the Stenciled Shipping Spec (A237) validation rule for CPC-1232 Compliant (B522)
            - Added 'S' for Tank Jacket Material (B204) for element CPC-1232 Compliant (B522)
            - Removed 'T' for Tank Jacket Material (B204) for element CPC-1232 Compliant (B522)

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 or by phone at 877-724-5462.

*Indicates this is a new element.