Proposal for sound handling and momentum integration

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Here is an outline of the improvements we would like to see in sound handling, momentum, and notching integration for RailPro.

For reference, our goal is to be able to re-create the effects seen in this video:
https://www.youtube.com/watch?t=3&v=cIpHWUFu-Go

- **Allow for heavy momentum settings**
  - Allow for Accel and Decel times of up to 60 seconds

- **Allow setting of throttle percentage where notch 8 is reached**
  - Let users set the percentage of power above which the sound is always notch 8.
    ie: this is the average full power setting on the layout.

  Or, more granularity: Allow setting of % for each notch

- **Improved Revving (smooth)**
  - The notches do not notch up/down smoothly. In manual notching you can outrun the sounds and skip over and entire sound causing the LM-2 to sound bad.
  - *Tim says:* We did not know this problem existed. We plan to fix this in a newer revision

- **Notching Modes**
  - Full Auto
  - Combined Auto/Manual
  - Full Manual

- **Combined Auto & Manual Notching**
  - Allow the user to increase or decrease the notch level at any time
  - Override the manual choice when throttle changes surpass the current setting.
    ie: the locomotive is moving at 40% power (auto notch is at notch 4) and the user manually increases to notch 6, then:
    - IF the user decreased the throttle to 30% auto-notching brings the sound down to notch 3 and manual notching is overridden.
    - IF the user increased the throttle to 50% or 60%, notching does not change.
    - IF the user increased the throttle to 70%, auto notching increases to notch 7 and manual notching is overridden.
  - See examples of usage below

- **Brake Feature (toggle) (sound effect only)**
  - Play squeal sound until button is released
  - IF stop is reached, automatically deactivate this button

- **Dynamic braking across consists (sound effect only)**
  - tap the button on the lead and turn on the dynamic brake sound on all locomotives.

- **Notch Indicator**
  - Display the current notch level on the display.

Notching response examples:

You're working a heavy train:
momentum is set to 10 seconds for high throttle responsiveness:
notch 8 is set at 80% for the sake of easy numbers

1. Engine is idling, you're ready to move
2. Manually set notch 2
3. Roll the throttle a bit to slowly begin moving
4. Manually set notch 8
5. Slowly work the throttle up 60% (your desired speed)
6. Manually set notch 3 (the train is up to speed and not working very hard)
7. Train is going too fast, you roll the throttle down to 45%
   (notch & sound does not change because you did not go below 30% which is notch 3)
8. Train is now too slow, you increase power to 50% - Notch auto increases to notch 5 (you needed the power!)
9. Train is up to speed, manually set back to notch 3.
10. Time to stop... optionally set notch 1
11. slowly work the throttle down to zero. If notch 1 was not set, then the notching will decrease with your power reductions.

You're working a light train:
momentum is set to 10 seconds for high throttle responsiveness:
notch 8 is set at 80% for the sake of easy numbers

1. Engine is idling, you're ready to move
2. Roll the throttle to 20%, sound increases with your movement
3. Manually set notch 1 since you're coasting.
4. Roll the throttle up to 30% - auto notch runs up to 3, you needed the power.
5. Manually set notch 1 since you're coasting.
6. Roll the throttle to 0% to stop.