

***SuperMoose LLC***

“Mush” Dog Mushing Software

Requirements Spec

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# Requirements:

1. The software will ultimately be available on the web, Android, and iOS.
2. The software will use the 64-bit epoch.
3. The software will be usable offline.
4. The user must be able to enable and disable a diagnostics mode.
5. The user must be able to clear diagnostic information.
6. The user must be able to enable or disable an analytics mode, for improvements and tuning.
7. The user must be able to clear the analytics data.
8. The software must capture any app crashes and ask the user what they want to do when possible.
9. Dates must not be enterable in the past.
10. The software will be stored using git at <https://github.com/manonthemountaintech>.
11. The software will be closed-source so that the Iditarod doesn’t use it for free.
12. The software will use a central database for results.
13. Documents will be stored at [TBD]
14. The class of the run will include local sled dog race, sled dog event, and fun runs.
15. The software will provide an administration mode. The administration mode will allow:
    1. A race to be created.
    2. A race to be destroyed.
    3. A race series to be created.
    4. A race series to be destroyed.
    5. What is to be raced (people, dogs, horses, kangaroos, etc…)
    6. Award logic (1st, 2nd, 3rd)
    7. Zero or more people who are
       1. Running the race.
       2. Where they are.
    8. A race that is to be run based on a logical operation on a previous race.
    9. Conditions for a race that have to be met, such as only 3-legged dogs.
    10. Where the event is to be raced.
    11. What days the event will occur at.
    12. An option to enter a date range.
    13. An option to enter individual dates.
    14. The allowed classes of the race.
    15. The divisions of the race.
    16. Payment for the race, if applicable.
    17. A search feature for race series.
    18. A search feature for race classes.
    19. A search feature for race divisions.
    20. Regions [TBD]
    21. A list of tasks to perform.

## The software will provide a race registration screen.

* 1. The race registration screen will allow the following to be entered:
     1. The mushers name.
     2. The team’s name.
     3. An icon for the team.
     4. The address of the team.
     5. A phone number for the team.
     6. The class, if applicable, must be selectable from the list specified during race registration.
     7. If the class is not applicable, then the musher will be individual.
     8. The division of the race from the list specified during race registration.
     9. The software will take a payment to enter the race via WiX.
     10. The names of one or more dogs, up to the limit for that class.
  2. Upon successful registration, the team will be assigned a bib number.

## Stage completion screen.

* 1. The race update screen will provide:
     1. The team’s name.
     2. The musher’s name.
     3. The team icon.
     4. The race the team is running.
     5. The stage the team is running.
     6. The mileage.
     7. The list of dogs, from which dogs can be removed.
     8. The time and date will be displayed but editable.
     9. The system will attempt to determine the current date and time, but if a value is entered, it will be used.
     10. The race update screen will be retrievable and modifiable, in case there was a typo.
     11. Once entered, only the run for that day for that race, stage, and team will be retrievable.
     12. The system will maintain a pool of dogs. If another team attempts to enter mileage using a dog that has already run for the day, then an administrator will be notified and [TBD].
     13. The system will display what stage is being completed for the race and series.
     14. The system will keep track of whether a stage is completed.
     15. The system will check if the next racing week has occurred by comparing the entered date and time to Wednesday at 11:59pm.
     16. The system will only allow one run per day.

## The software will provide a race results screen:

* 1. The race results screen will show the results for all of the teams that were in the race:
     1. Registration symbol.
     2. Bib number.
     3. Owners name.
     4. Team’s name.
     5. An icon for the team.
     6. The teams start time per day, only after they’ve started.
     7. The teams end time per day, only after they’ve ended.
     8. The time it took the team to run the race for the day.
     9. The event name will be the header.
     10. The overall event place.
     11. The number of points awarded. See “[Scoring](#_Scoring:)”

## The software will provide a series results screen:

* 1. Registration symbol.
  2. Full name.
  3. Class.
  4. Division.
  5. Series points.
  6. Class ranking.
  7. Division ranking.
  8. The points for the series.
  9. The distance traveled.
  10. An option to override the default units.
  11. The default units will be determined by:
      1. Where the results are being displayed.
      2. The locale of the user that is logged in to the underlying operating system.

## The software will provide a water k9 sports summary screen:

* 1. Registration symbol
  2. Owner full name
  3. 1 or more dog names.
  4. The special class.
  5. The high score.
  6. The average score for the series.
  7. The division.
  8. The division ranking.

## Security.

* 1. Administrators (“Snow Gods”)
     1. The administrators group will be limited to those who oversee Iron Paws Factory.
     2. Administrators will create zero or more race divisions.
     3. Administrators will create zero or more race series.
     4. Administrators will create zero or more race classes.
     5. Administrators will be able to add and remove people from the administrators group
     6. There will be a method for contracting administrators.
     7. Administrators may set fees for:
        1. Using mush
        2. Fees or percentages per race.
     8. Administrators also own all race and musher accounts.
     9. A blacklist of mushers will be maintained.
  2. Race owners
     1. Race owners may create, destroy, or modify a race consisting of 1 or more teams.
     2. Race owners may attach and detach payment as a requirement of a race.
     3. Race owner may set an account to a payment.
     4. There may be more than one form of payment.
     5. WiX’s payment system will be used.
     6. Race owners will be able to define one or more legs of a race.
     7. Race owners will be able define the start and end points of a race.
     8. The race route can optionally be defined by GPX data [TBD if the start of each leg can be set in GPX data].
     9. Race owners will be able to optionally define the date and time of the start of a race.
     10. Race owners will be able to optionally define the date and time of the end of a race.
     11. Race owners will be able to optionally define the date and time of the start of each leg.
     12. Race owners will be able to validate the results of the race.
     13. Race owners will be able to start and stop a race.
     14. Race owners will set how the start information for each leg is determined:
         1. Honor system – Musher is allowed to enter their start and stop information.
         2. Race owners – Race owners enter the start and stop information.
         3. Automated
     15. Race owners will set how the stop information for each leg is determined:
         1. Honor system – Musher is allowed to enter their start and stop information.
         2. Race owners – Race owners enter the start and stop information.
         3. Automated
     16. There will be a way for race owners to be contacted.
     17. Approval of volunteer position requests.
     18. The addition and removal of others as race owners.
     19. A list of tasks to perform.

### Regional Leaders

* + 1. Regional leaders will be able to create the regional group run.
    2. The system will only allow one regional group run.
    3. The ability to add 5 bonus points.
    4. The ability to edit races, series, and mushers.
    5. A list of tasks to perform.
  1. Race Team[Name]
     1. The race team will not be selectable for use in a race until 5 people join.
     2. Members will be able to add sled dog teams.
     3. Members will be able to remove sled dog teams.
     4. Requesting to host a regional group run.
     5. Cancelation of a request to host a regional group run.
     6. A list of tasks to perform.
  2. Mushers
     1. Mushers will be able to register for a race.
     2. Mushers will not be able to race unless they are registered.
     3. Mushers will be able to enter their start and stop times, if allowed.
     4. A volunteer request for a particular race.
     5. A volunteer request cancelation for a particular race.
     6. A request to join a team.
     7. A request to leave a team.
     8. A list of tasks to perform.

## Accessibility

* 1. The system will be usable to the color blind.
  2. The system will have contrast ratios of at least 7:1.
  3. The system will provide accessibility events.

## Awarding

* 1. Finishers:
     1. All finishers will receive a medal.
     2. 6 stages must be completed to be a finisher.
     3. The top finisher in the small teams will receive an award.
     4. The top finisher in the bog teams will receive an award.
     5. The top three finishers will be recognized.
     6. The winning region will receive special recognition.
     7. The lowest scoring finisher will be recognized as the red lantern winner.
  2. The participants showing the best sportsmanship will be recognized.
  3. The rookie of the year will be recognized.
  4. Dogs:
     1. Dogs completing their third Iron Paws will be recognized with an electronic silver bootie certificate.
     2. Dogs completing their fifth Iron Paws will be recognized with an electronic golden harness certificate.
     3. All dogs 8-9 years old will be recognized as trail masters.
     4. All dogs 10 and over will be recognized as trail legends.
  5. Mushers
     1. All mushers over the age of 60 will be recognized as Master Mushers.
     2. All mushers over the age of 18 will be recognized as Junior Mushers.

## Award Screen

* 1. The award screen will show the series, class, race, and the award.
  2. Administrators will also be able to see and check what state the award is in:
     1. Won
     2. Ordered
     3. On-site
     4. Ready to ship.
     5. Shipped to victor.
     6. Shipped to regional captain.
     7. Recognized.

## Social Activity Screen

* 1. A musher will be able to check in to a social activity for a stage.
  2. The musher will not be able to check in to more than one social per stage for their region.
  3. The musher will not be able to check in to more than 4 social events per race.
  4. An extra-region social may be logged once.

## Scoring

* 1. Each teams lowest score will be dropped at the completion of the race?
  2. The system will check for only one bye week with a zero score.
  3. A stage will be considered completed when 1 run of 1 mile is completed per week by 11:59pm on Wednesday.
  4. The system will either be notified or check with Facebook to see if a photo or video has been posted for the race and team.
     1. 1 point will be awarded for each photo or video for up to 2 photos or videos.
     2. At 3 photos or videos and above, 5 points will be awarded.
  5. A musher will receive 5 points for all of their teams for each social that they successfully register to.
  6. 20 points will be awarded for participating in a regional group run when the 5th and subsequent musher participates.
  7. 10 points will be added for sled dog event, sled dog race, and fun runs.
  8. 10 points will be awarded for completing a volunteer position, with no more than 20 points awarded per stage.
  9. Regional points:
     1. 50 points will be awarded to a regional team for hosting a regional group run.
     2. Regions earn 2 points for participants who are registered with Iron Paws.
     3. Regions earn 1 points for participants who are not registered with Iron Paws.
     4. The non-mileage (overall) points of the top 5 participants are added to the regional team score at each stage.
  10. Points for mileage are allocated as follows.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Class** | skijor | fat bike on snow | sled | snowshoe | canicross | bikejor | cart | scooter |
| Skijor | 1 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| 1 dog sled |  |  |  |  |  |  |  |  |
| 2 dog sled |  |  |  |  |  |  |  |  |
| 4 dog sled |  |  |  |  |  |  |  |  |
| 4 dog skijor |  |  |  |  |  |  |  |  |
| 6 dog sled |  |  |  |  |  |  |  |  |
| Unlimited dog sled | |  |  |  |  |  |  |  |
| Canicross |  |  |  |  |  |  |  |  |
| 1 dog dryland |  |  |  |  |  |  |  |  |
| 2 dog dryland |  |  |  |  |  |  |  |  |
| 4 dog dryland |  |  |  |  |  |  |  |  |
| 1 dog fatbikejor |  |  |  |  |  |  |  |  |
| 2 dog fatbikejor |  |  |  |  |  |  |  |  |