Nano Timers API Documentation

Version: *0.1.2beta*
Date: *2017-08-09*

Summary:
Timer Library that includes countdown timers and stopwatches.

Contents:
Structures

- Time

Enumerables

- ETimerState

Classes

  - Timer
    - CountdownTimer
    - Stopwatch

Time

- **Summary**
  - Container for minutes, seconds, and milliseconds
- **Remarks**
  - “Time” is a structure that already exists in the UnityEngine namespace.
- **Namespace**
  - NanoTimers
- **Members**
  - **Public**
    - minutes, int
    - seconds, int
    - millis, int
- **Constructor**
  - **Params**
    - minutes, int
    - seconds, int
    - millis, int

ETimerState

- **Summary**

  - States that define a timer.
- **Namespace**
  - NanoTimers
- **Members**
  - Active
  - Paused
  - Expired
  - New

Timer

- **Summary**
  - Framework for a basic timer.
- **Namespace**
  - NanoTimers
- **Modifiers**
  - Abstract
- **Parent Class**
  - MonoBehaviour
- **Fields**
  - **Protected**
    - m_minutes, int
      - **Summary**
        - The number of minutes currently on this timer.
    - m_seconds, int
      - **Summary**
        - The number of seconds currently on this timer.
    - m_millis, int
      - **Summary**
        - The number of milliseconds currently on this timer.
    - m_showMillis, bool
      - **Summary**
        - Will this timer also display milliseconds?
    - m_state, ETimerState
      - **Summary**
        - The current state of this timer.
    - m_timerText, Text
      - **Summary**
        - Reference to the UI Text object where the timer’s minutes and seconds are displayed.
    - m_pausedTimer, CountdownTimer
      - **Summary**

        - Internal timer that determines for how long this timer should be paused.
    - m_originalState, NanoTimers.Time
      - **Summary**
        - Initial time this timer was initialized to. Used for resets.
    - m_isInitialized, bool
      - **Summary**
        - Determines if this timer has been properly initialized and prevents it from being started with uninitialized values.
- **Properties**
  - State, ETimerState
    - **Summary**
      - Only returns this timer’s current state.
  - Time, NanoTimers.Time
    - **Summary**
      - Only returns this timer’s current time.
- **Constructor**
  - Unity Default
- **Methods**
  - **Public**
    - StartTimer, void
      - **Summary**
        - Enables this timer’s active state if initialized.
    - Pause, void
      - **Summary**
        - Pauses this timer indefinitely.
    - PauseForSeconds, void
      - **Summary**
        - Pauses the timer for a determined number of seconds.
      - **Remarks**
        - Creates another CountdownTimer on this game object that has no display. Is recycled when possible.
      - **Params**
        - seconds, int
        - millis, int
    - AddTime, void
      - **Summary**
        - Adds time to this timer.
      - **Remarks**
        - Will format time if given minutes and/or seconds are greater than or equal to 60, and milliseconds if greater than or equal to 1000.
      - **Params**

        - time, NanoTimers.Time
    - SubTime, void
      - **Summary**
        - Subtracts time from this timer.
      - **Params**
        - time, NanoTimers.Time
    - SetTime, void
      - **Summary**
        - Sets this timer to the given input.
      - **Remarks**
        - Will format time if given minutes and/or seconds are greater than or equal to 60, and milliseconds if greater than or equal to 1000.
      - **Params**
        - time, NanoTimers.Time
    - Reset, void
      - **Summary**
        - Resets this timer to the original time it was created with.
      - **Remarks**
        - Does not reset the timer.
    - SetShowMillis, void
      - **Summary**
        - Enables millisecond display.
      - **Params**
        - isShown, bool
  - **Protected**
    - UpdateUI, void
      - **Summary**
        - Updates visual text with this timer’s current time.
      - **Remarks**
        - Doesn't execute if there is no text reference in m_timerText to update.
- **Static Methods**
  - ConvertToMillis, int
    - **Summary**
      - Converts a given time into pure milliseconds.
    - **Params**
      - time, NanoTimers.Time

CountdownTimer

- **Summary**
  - Timer class that counts from a determined time to 0 and makes an event call to a function upon expiring.

- **Namespace**
  - NanoTimers
- **Parent Class**
  - Timer
- **Fields**
  - **Private**
    - m_callback, Action
      - **Summary**
        - Reference to a method that will be invoked when this timer expires.
- **Constructor**
  - Unity Default
- **Methods**
  - **Public**
    - Initialize, void
      - **Summary**
        - Initializes this time with default values and references.
      - **Remarks**
        - "Null" may be passed for timerText if no GUI is desired.
      - **Params**
        - time, NanoTimers.Time
        - timerText, Text
        - callback, Action
  - **Private**
    - FixedUpdate, void
      - **Summary**
        - Determines the number of milliseconds to subtract from this timer every update.

Stopwatch

- **Summary**
  - Timer class that counts form 0 to infinity.
- **Remarks**
  - Does not make event calls.
- **Namespace**
  - NanoTimers
- **Parent Class**
  - Timer
- **Methods**
  - **Public**
    - Initialize, void
      - **Summary**

            - Initializes the timer with default values and references
        - **Params**
            - timerText, Text
- **Private**
    - FixedUpdate, void
        - **Summary**
            - Determines the number of milliseconds to add to this timer every update.