Date & Time Utilities Package

Readme

Version 1.0

10/1/2023

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1. Introduction

This document contains all essential information for the user to make full use of this Automation 360 Package. It includes a description of the functions and capabilities and step-by-step procedures for setup & configuration of the Package.

1.1 Overview

This package offers a comprehensive collection of 16 convenient custom actions, each specifically tailored to simplify the process of manipulating dates and times. These actions have been developed to cater to a wide range of needs and scenarios, drawing from my extensive experience accumulated during my years as a consultant.

1.2 Use cases

The Date & Time Utilities package can be used by automation developers to apply complex date logic using minimal coding Use cases include:

- Extracting parts of date time values
- Calculating date and time differences
- Determining business dates
- Creating standardized timestamps
- Date string validation
- Multi-session stopwatch feature

2. Requirements & Prerequisites

2.1 System Requirements

Automation 360 and Community Edition device requirements.

Review the machine hardware specifications, operating system versions, and browser types supported by Automation Anywhere Enterprise for creating and running bots and command packages as an Automation 360 or Community Edition user on your local machine.

2.2 Prerequisites

Automation 360

Windows Bot Runner

3. Getting Started

3.1 Quick Start

3.1.1 Setup

1. Install the package from Bot Store into your Control Room

2. Validate/Enable the package named **Date & Time Utilities** has been installed and set as default.

   a. It should install/enable itself upon install of the Bot Store package, but just triple check to be sure.

Selected package details			
Name DateTime-Utilities	**Description** Providing utility actions extending AA basic date time ...	**Version** 2.9.0-20231024-135625	**Status** Default
Vendor Adaptive Innovations	**Recommended bot agent version** 20.11 or above	**Recommended Control Room version** 8750 or above	

Actions

Actions (16)

> Date Part

> Date Part (String)

> Date Time Stamp

> Difference Between Dates

> Explode Date

> First Business Day of Month

> Is Date

> Is Leap Year

> Last Business Day of Month

> Length Of Month

> Length Of Year

> Next Business Day

> Now

> Previous Business Day

> Stopwatch Start

> Stopwatch Stop

3.1.2 Configuration and Use

There are sixteen actions that makes up this package:

1. **Date Part**: This action enables users to extract parts of a date time variable.

    a. **Source:** the date time that user would like to extract parts from

    b. **Date Part:** Date part to be extracted from source date.
    -   Four-digit year
    -   Day of the year (1 - 366)
    -   Get Month (1 - 12)
    -   Day of the month (1 - 31)
    -   Week of the year (1 - 52)
    -   Day of the week (1 - 7) where 1 = Sunday
    -   Hour of the day (1 - 12)
    -   Hour of the day (0 - 23)
    -   Minutes (0 - 59)
    -   Seconds (0 - 59)

    c. **Returns**: Returns a numeric value representing the date part requested.

2. **Date Part (String)**: This action enables users to extract parts of a date time variable.

    a. **Source:** the date time that user would like to extract parts from

    b. **Date Part:** Date part to be extracted from source date.
    -   Get Month (January - December)
    -   Day of the week (Sunday - Saturday)

    c. **Returns**: Returns a string value representing the date part requested.

3. **Date Time Stamp**: This action creates a formatted datetime stamp YYYYMMDD_HHMMSS

    a. **Source:** the date time that user would like to create stamp from

    b. **Returns**: Returns a string value representing datetime value entered.

4. **Difference Between Dates**: This action calculates the difference between two datetime values provided and offers result in the requested unit of measure.

   a. **First Date:** the date time that user would like to compare from

   b. **Second Date:** the date time that user would like to compare to

   c. **Unit of Measure:** Unit of measure for the comparison
      - Years
      - Months
      - Weeks
      - Days
      - Hours
      - Minutes
      - Seconds

   d. **Returns**: Returns a numerical value representing difference in the unit of measure requested.

5. **Explode Date**: This action extracts all parts of a datetime value in one action and provides result in a dictionary form.

   a. **Source Date:** the date time that user would like to compare from

   b. **Returns**: Returns numerical and string values representing all parts of the datetime value Key values belong to the following list
      - Year
      - DayOfYear
      - Month
      - MonthName
      - DayOfMonth
      - WeekOfYear
      - DayOfWeek
      - DayOfWeekName
      - Hour
      - HourOfDay
      - Minute
      - Second

*Note: **Hour** is represented as the 12 hour clock (1-12) and **HourOfDay** is represented as 24 hour clock (0-23)*

6. **First Business Day of Month**: This action calculates the first business day / weekday of the given month and year.

    a. **Month:** Month of the year

    b. **Year:** Year

    c. **Returns**: Returns a datetime value representing the first business day of the month and year provided

7. **Is Date**: This action determines if a source string is a valid date depending on selected date format.

    a. **Source Date:** A string value that may or may not be a date.

    b. **Date Format:** Date format that the source string must match in order to be considered a valid date. User can select a predefined date format or can create a custom date format.

    c. **Returns**: Returns a boolean value representing the validity of the source string (True, it represents a date or False it does not)

8. **Is Leap Year**: This action determines if the year passed in is a leap year or not.

    a. **Year:** A four-digit numeric value of a year.

    b. **Returns**: Returns a boolean value representing if the year is a leap year (True, the year is a leap year, False it is not)

9. **Last Business Day of Month**: This action calculates the last business day / weekday of the given month and year.

    a. **Month:** Month of the year

    b. **Year:** Year

    c. **Returns**: Returns a datetime value representing the last business day of the month and year provided

10. **Length of Month**: This action returns the number of days in the given month and year.

    a. **Month:** Month of the year

    b. **Year:** Year

    c. **Returns**: Returns a numeric value representing the number of days in the month and year provided

11. **Length of Year**: This action returns the number of days in the given year.

    a. **Year:** A four-digit numeric value of a year

    b. **Returns**: Returns a numeric value representing the number of days in the year provided

12. **Next Business Day**: This action calculates the next business day / weekday given a particular date.

    a. **Source Date:** Date from which next business day is calculated.

    b. **Returns**: Returns a datetime value representing the next business day

13. **Now**: This action returns the current date and time.

    a. **Returns**: Returns a datetime value representing the current date and time

14. **Previous Business Day**: This action calculates the previous business day / weekday given a particular date.

    a. **Source Date:** Date from which previous business day is calculated.

    b. **Returns**: Returns a datetime value representing the previous business day

15. **Stopwatch Start**: This action starts a stopwatch for a given session name.

    a. **Session:** Session name to associate with started time.

    b. **Returns**: Returns a datetime value representing the current date time that is stored in the named session

16. **Stopwatch Stop**: This action calculates the duration of the stopwatch interval for the given session.

    a. **Session:** Session name associated with started time.

    b. **Unit of Measure:** Unit of measure for the stopwatch to measure time
       - Years
       - Months
       - Weeks
       - Days
       - Hours
       - Minutes
       - Seconds

    c. **Returns**: Returns a datetime value representing the duration for the named session

4. Support & FAQs

4.1 Support

Free bots are not officially supported through Automation Anywhere. You can get access to Community Support through the following channels:

- You can get access to Community Support, connecting with other Automation Anywhere customers and developers on our Pathfinder Community
- Automation Anywhere also provides a Product Documentation portal which can be accessed for more information about our products and guidance on The Automation Success Platform.
- Additionally, the source code for most Automation Anywhere free bots is included on our GitHub page.

4.2 FAQs

For questions relating to Automation 360: See the Automation Anywhere FAQs.

Appendix A: References

No.	Topic	Reference Link
1	Overview of Automation 360	Click here
2	Guidance: Building basic Automation 360 bots	Click here
3	Guidance: Building Automation 360 packages	Click here
4	Pathfinder Community Forum	Click here
5	Automation Anywhere University	Click here