Image Automation Toolkit

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Overview:

The Image Automation Toolkit is designed to streamline developers' daily automation tasks related to image processing. This comprehensive bundle includes six distinct activities, each with unique capabilities. The Image Comparison feature allows for pixel-by-pixel analysis of two images, providing a clear result indicating whether they match. The Extract Text from Image activity facilitates quick text extraction using the integrated UiPath Screen OCR, enabling effortless drag-and-drop functionality.

Additionally, the Merge Two Images tool simplifies the process of merging images horizontally and saving them in a specified location. The Validate Image DPI Value activity empowers developers to assess the DPI value of an image and make informed decisions based on the results. Lastly, the Validate Image Hexacode feature enables users to determine if an image contains a specified hex color code, allowing for targeted decision-making and the Image Resizer has been developed to simplify the process of resizing images for developers. With this tool, there is no need to install any third-party applications for image resizing. Overall, the Image Automation Toolkit significantly enhances the efficiency and effectiveness of image automation development.

How to use each activity:

1. **Compare Two Images Pixel by Pixel:** The process will take the input paths of two images and compare them pixel by pixel. Based on this comparison, it will generate a Boolean result indicating whether the images are the same or different.
2. **Extract Image Text:** The process will take an image input path and extract the text contained within the image. While providing an API key and endpoint is not mandatory, doing so may enhance the accuracy of the extraction results. Additionally, you can specify a regex value to identify desired keywords using the regex activity.
3. **Merge Two Images:** The process will take the input path of images and merge them into a single image horizontally. The output will be saved at the specified location, which must include both the filename and the appropriate file extension.

4. **Validate Image DPI Check:** The process will take the image input path and perform calculations to determine the DPI (dots per inch) value based on the image's height, width, and file size. This functionality will streamline the developer's task of validating the DPI value of images.
5. **Validate Image Hexacode:** The process involves taking the input path of an image and applying code to extract all the hex color codes from the image. These hex codes will be stored in a list variable. The developer can provide a specific hex code to check for its presence in the image. If the hex code is found, the code will also calculate the frequency of its occurrence. Additionally, the developer can validate the image based on the appearance of specific hex codes and make further decisions accordingly.
6. **Image Resizer:** The Image Resizer activity accepts an image path, along with specified height and width, to resize the image accordingly. It also requires an output path, including the desired file name and extension, for saving the resized image at the specified location.

Benefits:

- Image Comparison: Quickly identify differences between images, enhancing quality assurance in visual testing.
- Text Extraction: Streamline data entry by automating text extraction from images, reducing manual effort and errors.
- Image Merging: Simplify the creation of composite images, allowing for more efficient graphic design and presentation tasks.
- DPI Validation: Ensure images meet quality standards by easily checking DPI values, crucial for print and digital media.
- Hex Code Validation: Enable targeted color analysis in images, facilitating better design decisions and branding consistency.
- Image Resizer: Image Resizer has been developed to simplify the process of resizing images for developers.