

# ***Software Development Kit***

## **Despeckle**

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***Recogniform Technologies SpA***

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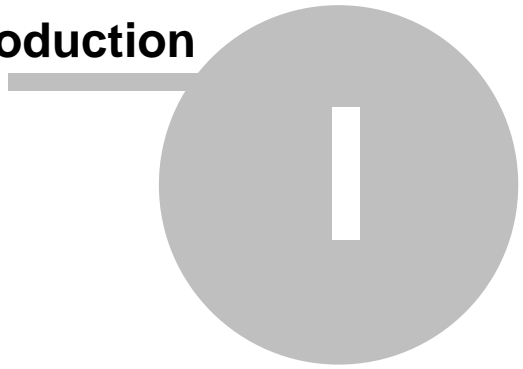
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# Introduction



# 1 Introduction

## 1.1 Copyright

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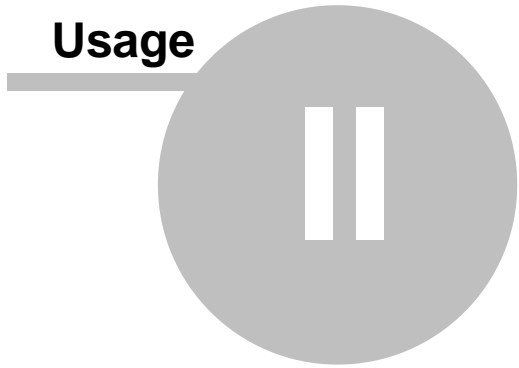
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## 1.3 Overview

The library allows to remove noise points on images acquired using a scanner or a fax.

**Usage**



## **2 Usage**

### **2.1 Visual C++**

You have to include the `RECODESPECKLEAPI.C` in your program (see sample application). Before to execute your application make sure the `RECODESPECKLE.DLL` is available in your same .exe directory or in windows\system directory.

### **2.2 C#**

You have to include the `RECODESPECKLEAPI.CS` in your program (see sample application). Before to execute your application make sure the `RECODESPECKLE.DLL` is available in your same .exe directory or in windows\system directory.

### **2.3 Visul Basic .NET**

You have to include the `RECODESPECKLEAPI.VB` in your program (see sample application). Before to execute your application make sure the `RECODESPECKLE.DLL` is available in your same .exe directory or in windows\system directory.

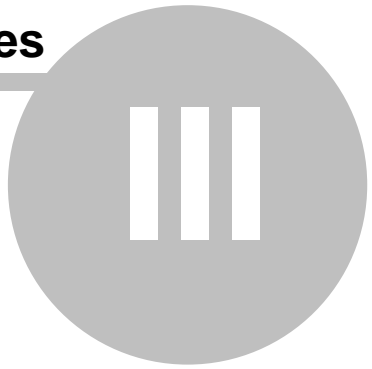
### **2.4 Visul Basic**

You have to include the `RECODESPECKLEAPI.BAS` in your program (see sample application). Before to execute your application make sure the `RECODESPECKLE.DLL` is available in your same .exe directory or in windows\system directory.

### **2.5 Delphi**

You have to include the `RECODESPECKLEAPI.PAS` in your program (see sample application). Before to execute your application make sure the `RECODESPECKLE.DLL` is available in your same .exe directory or in windows\system directory.

## API References





## 3 API References

### 3.1 DESPECKLE\_Init

#### C/C++ Declaration

```
__stdcall long DESPECKLE_Init(char* User, char* Psw);
```

#### C# Declaration

```
int DESPECKLE_Init(string User, string Psw);
```

#### Visual Basic Declaration

```
Function DESPECKLE_Init(ByVal User As String, ByVal Psw As String) As Integer
```

#### Visual Basic .NET Declaration

```
Function DESPECKLE_Init(ByVal User As String, ByVal Psw As String) As Integer
```

#### Delphi Declaration

```
function DESPECKLE_Init(User:PAnsiChar; Psw:PAnsiChar):Integer; stdcall;
```

#### Description

This is the first function to call: initialize the library and returns a session handle to use in next calls. When you buy the library you receive an "user" and a "password" string necessary to initialize the library in normal mode: without this value or with wrong values the library is initialized in evaluation mode. The evaluation mode works exactly as normal mode but some time, when you call the despeckle function, is displayed a warning dialog box remembering the evaluation state: you can close it and continue to work with no problems.

#### Parameters

*User* (in) - then user name string  
*Psw* (in) - then password string

#### Return values

The session handle if the library is initialized, 0 otherwise.

## 3.2 **DESPECKLE\_Done**

### **C/C++ Declaration**

```
__stdcall void DESPECKLE_Done(long SessionHandle);
```

### **C# Declaration**

```
void DESPECKLE_Done(int SessionHandle);
```

### **Visual Basic Declaration**

```
Sub DESPECKLE_Done(ByVal Session As Integer)
```

### **Visual Basic .NET Declaration**

```
Sub DESPECKLE_Done(ByVal Session As Integer)
```

### **Delphi Declaration**

```
procedure DESPECKLE_Done(SessionHandle: Integer);  
stdcall;
```

### **Description**

This is the last function to call when you don't need more services from the library: deinitialize the library and free all used resources.

### **Parameters**

*SessionHandle* (in) - the session handle to free

### **Return values**

n/a

## 3.3 **DESPECKLE\_RemovePoints**

### **C/C++ Declaration**

```
__stdcall long DESPECKLE_RemovePoints(long  
SessionHandle, long DIBIn, long MxPointW, Long  
MaxPointH);
```

## **C# Declaration**

```
int DESPECKLE_RemovePoints(int SessionHandle, int DIBIn, int MaxPointW, int MaxPointH);
```

## **Visual Basic Declaration**

```
Function DESPECKLE_RemovePoints(ByVal Session As Integer, ByVal DIBHandle As Integer, ByVal MaxPointW As Integer, ByVal MaxPointH As Integer) As Integer
```

## **Visual Basic .NET Declaration**

```
Function DESPECKLE_RemovePoints(ByVal Session As Integer, ByVal DIBHandle As Integer, ByVal MaxPointW As Integer, ByVal MaxPointH As Integer) As Integer
```

## **Delphi Declaration**

```
function DESPECKLE_RemovePoints  
(SessionHandle: Integer; DIBHandle: Integer;  
MaxPointW: Integer; MaxPointH: Integer): Integer;  
stdcall;
```

## **Description**

This function allows to remove the point of a specific size.

## **Parameters**

*SessionHandle* (in) - the session handle to use

*DIBIn* (in) - the handle of the monochrome DIB to despeckle

*MaxPointW* (in) - the maximum width of the point to remove in pixel

*MaxPointH* (in) - the maximum height of the point to remove in pixel

## **Return values**

The number of removed points.

## **Notes**

The library works with standard DIBs images. Refer to Microsoft

documentation for additional info about Device Independent Bitmaps.

### 3.4 **LoadDespeckleLibrary**

#### **C/C++ Declaration**

```
long LoadDespeckleLibrary();
```

#### **Description**

Load the DESPECKLE DLL library: you have to use this function one time before to use other API functions

### 3.5 **FreeDespeckleLibrary**

#### **C/C++ Declaration**

```
void FreeDespeckleLibrary();
```

#### **Description**

Unload the DESPECKLE.DLL library: you have to use this function one time before to exit from your application.

**Sample**

**IV**

## 4 Sample

### 4.1 Code Sample

```
#include "stdafx.h"
#include <stdio.h>
#include "recodespeckle.c"

int APIENTRY WinMain(HINSTANCE hInstance,
                    HINSTANCE hPrevInstance,
                    LPSTR      lpCmdLine,
                    int         nCmdShow)
{
    // Load dynamically the library
    LoadDespeckleLibrary();

    // Init the session
    int Session= DESPECKLE_Init("demo", "demo");

    long hBitmap;

    // Check if a DIB is available in clipboard
    bool bAvail= IsClipboardFormatAvailable(CF_DIB);

    hBitmap = 0;

    if (bAvail)
    {
        // Open the Clipboard
        ::OpenClipboard(NULL);

        // Retrieve the DIB from clipboard
        hBitmap = (long) GetClipboardData(CF_DIB);

        // Find and removes points of speckle
        long RemovedPoints=
        DESPECKLE_RemovePoints(Session, (long) hBitmap, 4, 4);

        ::EmptyClipboard();

        // Set the cleaned DIB to clipboard
        SetClipboardData(CF_DIB, (void*)hBitmap);

        // Close the Clipboard
        ::CloseClipboard();

        char  buffer[200];

        // Format the output message
        if (RemovedPoints!=0)

            sprintf( buffer, "Removed %d points ! You
can paste in your application...", RemovedPoints);
```

```
        else

            sprintf( buffer, "Image don't need to be cleaned

!");

            // Show the result
            MessageBox(NULL, buffer, "RESULT", MB_OK);

        }
        // Show an error message
        else MessageBox(NULL, "Unable to paste DIB", "ERROR",
MB_OK);

        // Close the session
        DESPECKLE_Done(Session);

        // Unload the library
        FreeDespeckleLibrary();

        return 0;
    }
```

## *Annotation*



