

General

Who needs the new application module for RoutePro3000?

All our customer highly estimate the precision and sturdiness of the Bungard CCD. The open system just invites to adapt the Bungard CCD for customer specific applications.

Unfortunately we are not able to realize all customer requests.

For that reason all builders and makers have now the opportunity to develop their ideas for the Bungard CCD. We offer the interface so you can remote control the CCD with your own application.

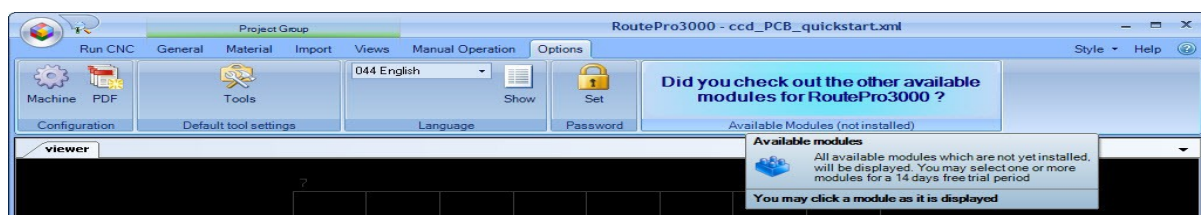
This enables you to mount tools or measuring devices onto the CCD, these devices will then transfer data to your application and your application again interacts according to the data input with the CCD.

Requirements

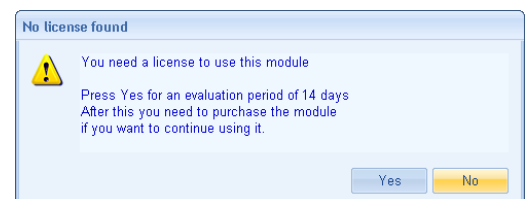
You need:

- Software RoutePro3000
- Application-License API3000
- Zip-file RouteProApi 25062014a.zip
- programming skills

Operation

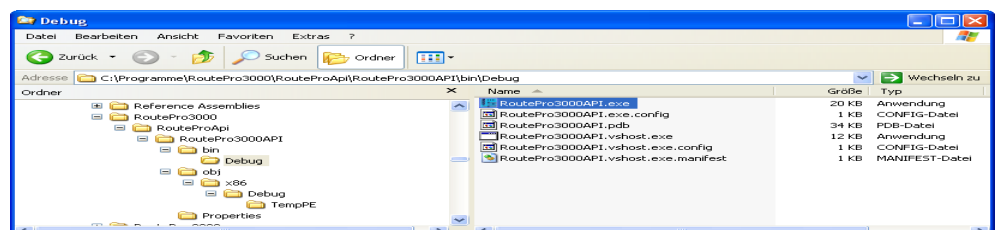


If you want to test the Application-module, you can activate a 14 day Demo-license. Go to tab **Options**, look at Available Options and wait till API3000 (Remote3000) appears. Click on **API3000**. After that you can activate your evaluation period. It may be necessary to restart RoutePro3000.

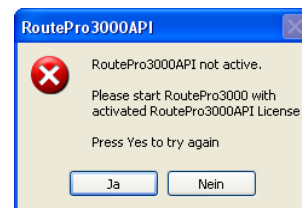


In addition you need the zip-file RouteProApi 25062014a.zip. Please send a request, so we can send the file via e-mail. Unzip the file e.g. in your RoutePro3000 folder.....

..... so it looks similar to this:



Go to RouteProApi\RoutePro3000API\bin\Debug and double click on RoutePro3000API.exe. If RoutePro3000 is not opened, this message appears:

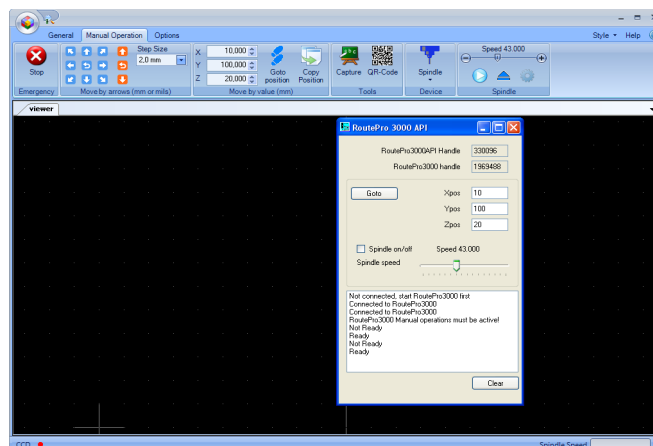
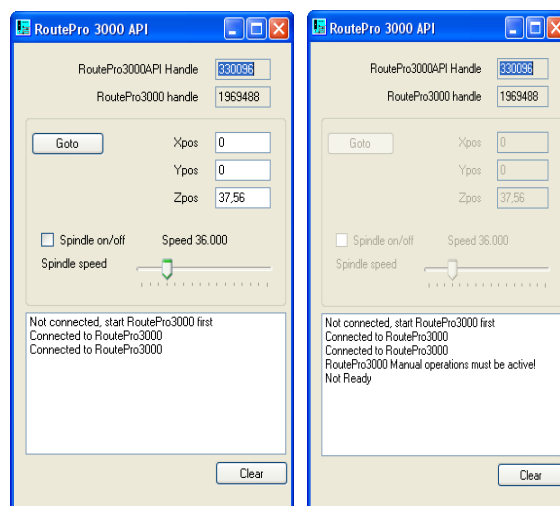


Open RoutePro3000, click on the warning message **yes**. Now the graphic interface appears.

Here you can insert , similar to the **Manual Mode**, positions for X, Y and Z and have the machine drive to these positions. What is more, you can also switch the spindle on and off and change the number of revolutions (RPM). Try it! If it does not work, most probably you haven't opened tab **Manual Mode**. This is also shown in the API3000 interface.

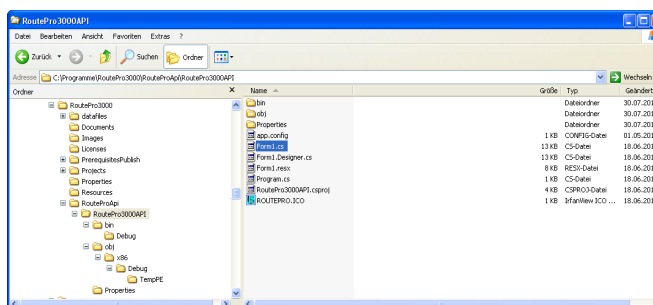
OK, open tab **Manual Mode** and try again. Now the Bungard CCD should react. At the same time you will notice that the dialogue fields in the **Manual Mode** react. The API3000 interface is coupled with the **Manual Mode**.

If you change the positions X, Y and Z in the API3000 interface, the positions also change in **Manual Mode**. If you start the spindle and change RPM, this will also be displayed in **Manual Mode**.



The RoutePro3000API.exe only serves as an optical control. The real interaction with the CDD takes place via a programming environment.

Go to RouteProApi\RoutePro3000API and open the file Form1.cs with an editor e.g. Notepad. Alternatively you open the file with your programming environment.



From that point on it becomes clear for every user with programming background, which huge opportunities the module API3000 for the Bungard CCD offers. Please understand that we cannot give support for your programming. But With the appropriate professional background, it will be very easy for you to integrate the Bungard CCD into your application.

```

1 using System;
2 using System.Collections.Generic;
3 using System.Runtime.InteropServices;
4 using System.Windows.Forms;
5
6 namespace RoutePro3000API
7 {
8     public partial class Form1 : Form
9     {
10         public struct sharedMem
11         {
12             public Int32 Started;
13             public Int32 SpindleType;
14             public Int32 TrackBarVelSpindle;
15             public Int32 RouteProHandle;
16             public Int32 APIHandle;
17             public Single Xposition;
18             public Single Yposition;
19             public Single Zposition;
20         }
21
22         public Boolean CloseApp = false;
23         public Boolean RouteProActive = false;
24         public static sharedMem sm = new sharedMem();
25         public static Int32 Result = 0;
26         public static SharedMemID Name;
27         public static Boolean skipEvent = false;
28
29         public Form1()
30         {
31             InitializeComponent();
32         }
33
34         protected override void WndProc(ref Message message)
35         {
36             //filter the routepro3000 message
37
38             if (message.Msg == 0x0800)
39             {
40                 switch (message.WParam.ToInt32())
41                 {
42                     case 0:
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Safety regulations

Pay heed to the safety regulations of the Bungard CCD.

Technical data

Requirements:	<ul style="list-style-type: none"> • Software RoutePro3000 • License API3000 • Zip-file RouteProApi 25062014a.zip • Programming skills
Application:	Remote control for CCD, developing of your own applications

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