

# CRC Tool Version 1.0 Release Notes

This is the production release for a Class-Responsibility-Collaboration (CRC) Object-Oriented Design Tool, CRC Tool. This release has the basic functionality to do responsibility driven design as described in Designing Object-Oriented Software by Wirfs-Brock, Wilkerson and Wiener.

The Win32 version of this program requires the ctl3d32.dll to be installed in the system directory. The winnt directory contains the file for Windows NT 3.5. The win31 directory contains the file for Windows 3.1. To run the Win32 version of CRC Tool under Windows 3.1 requires Win32s 1.2 or later. This can be obtained from CompuServe or from ftp.microsoft.com on the Internet. The Windows 3.1 version of this program does not use the ctl3d.dll to create a 3-D look, since it was found to be incompatible.

This program is offered as shareware. This program is not freeware. Pricing for CRC Tool 1.0 is \$40 for an individual license. A corporate license is \$200.

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Known problems:

- an anemic help file
- inconsistent keyboard accelerators in dialogs
- not all controls in dialogs have accelerators
- the only way to select which subsystems or classes to print is by page number
- redraw of views is not optimized
- there is no way to get from Responsibility View to System View and vice versa via the keyboard

Features to be added as time permits:

- page numbers on print out
- commands to expand and contract the hierarchical tree in the System View list
- collaboration graphs
- undo delete
- exception handling
- save views and window status for a design on close
- merge input design files
- option to display WYSIWYG size cards with scrollbars in card views
- consistency check; e.g. contracts have responsibilities, contracts have clients, abstract classes don't inherit from concrete classes, etc.

- selection of classes and subsystems for printing of cards
  - statistics/cross-reference: e.g. what classes use a given contract, etc.
  - hypertext design document in html output format
  - hypertext design document in winhelp rtf format
  - drag 'n drop between all views
  - add font selection, card size, line height, and print backs option to print preview toolbar
  - write design to a database
  - provide scripting language to extract information from design
  - code generation for Smalltalk and C++
- (Comments on the prioritization of features are welcome)

## Differences between 16 and 32 bit versions of CRC Tool:

1. 32-bit version supports long filenames.
2. 32-bit version under Win32s does not work with all printer drivers, e.g. HP 520.
3. 16-bit version does not have 3-D look on controls in dialogs.

## Installation:

### For Windows NT

1. Create a directory for CRC Tool.

e.g.

```
md c:\crctool
```

2. Use pkunzip to unzip the crctool32.zip file into the directory created.

e.g.

```
cd c:\crctool
```

```
pkunzip -d a:crctool32.zip
```

3. Use program manager to create a new group and an icon for CRC Tool.

4. If necessary, copy the winnt\ctl3d32.dll to the winnt\system32 directory.

e.g.

```
copy c:\crctool\winnt\ctl3d32.dll c:\winnt\system32
```

### For Window 3.1 (16-bit version)

1. Create a directory for CRC Tool.

e.g.

```
md c:\crctool
```

2. Use pkunzip to unzip the crctol16.zip file into the directory created.

e.g.

```
cd c:\crctool
```

```
pkunzip a:crctol16.zip
```

3. Use program manager to create a new group and an icon for CRC Tool.

### For Window 3.1 (32-bit version)

1. Obtain and install Win32s 1.2 or later.

2. Follow steps 1-3 of Windows NT installation

3. If necessary, copy the win31\ctl3d32.dll to the windows\system directory.

e.g.

```
copy c:\crctool\win31\ctl3d32.dll c:\windows\system
```

### For Windows 95 Beta (untested)

Follow instructions for Windows NT.

If Windows 95 version is 4 or greater the ctl3d32.dll should not be necessary.