

Getting Started Guide

Concise Beam Version 4.4

January, 2006



Black Mint Software, Inc.
Ottawa, Ontario, Canada
<http://www.BlackMint.com>
info@BlackMint.com

Copyright Notice

© Black Mint Software, Inc. 2002/2006
All rights reserved.

The use and copying of this product is subject to a license agreement. Any other use is prohibited. No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system or translated into any language in any form by any means without the prior written consent of Black Mint Software, Inc. Information in this manual is subject to change without notice and does not represent a commitment on the part of the vendor.

Trademarks

The Black Mint Software Logo, Concise, Concise Beam, and the Concise Beam logo are trademarks of Black Mint Software, Inc. The CPCI logo is a registered trademark of the Canadian Precast/Prestressed Concrete Institute.

Assumptions on the Use of This Guide

This guide assumes you are familiar with the version of Microsoft Windows you are using. If you are not familiar with Windows terms such as “dialog”, “icon”, “option”, “menu”, “Start Menu”, “Desktop”, or “drop-down list”, see your Windows documentation.

Contents

What is Concise Beam? 1
End-User License Agreement 2
What You Need to Run Concise Beam 5
Obtaining and Installing Concise Beam 5
Using the Evaluation Version and Obtaining a Licensed Version 5
Uninstalling Concise Beam 5
How to Get Started with Concise Beam 6
What’s New in Concise Beam Version 4.0 for Users of Version 3.5 or Earlier..... 6
Getting Help 7
User Input and Feedback..... 7

What is Concise Beam?

Concise Beam is an easy to use Microsoft Windows based program for the design of precast concrete beams. Concise Beam will perform a load analysis and design checks in accordance with the latest version of ACI 318, CSA A23.3, CSA S6, or AS 3600. The beam can be conventionally reinforced, partially or fully pre-tensioned. It can model any cross-sectional shape and will allow the cross-section to vary prismatically (step-wise) over the length of the beam. A graphical editor allows the user to describe any cross-section, including voids, openings or cut-outs.

Concise Beam currently works in two-dimensions but will also account for torsion along the beam. The user can work in metric or English (Imperial) units, select from a variety of individual units (i.e. mm, cm, m), and switch back and forth at will.

Libraries of industry standard cross-sections and materials are provided with Concise Beam. The standard libraries can be modified, extended and customized by the user.

Concise Beam was originally developed by the Canadian Precast/Prestressed Concrete Institute (CPCI) in the early 1990s to aid the productivity of their members and to promote the use of precast concrete in general. CPCI released their last version (3.5a) of Concise Beam in February 2001. After succeeding in their goal, and with the development of commercial alternatives, CPCI no longer felt the need to be in the software development business and sold their rights in Concise Beam to Black Mint Software Inc. for the release of version 4.0.

Before continuing please thoroughly read the following end-user license agreement. You must accept the contents of the agreement to use Concise Beam.

End-User License Agreement**IMPORTANT NOTICE:**

Black Mint Software Inc. ("Black Mint") licenses the accompanying software (the "Software") to you only upon the condition that you accept all of the terms contained in this license agreement. Please read the terms carefully before continuing the installation, as pressing the "Yes" button will indicate your assent to them. If you do not agree to these terms, please press the "No" button to exit install, as the Licensor is unwilling to license the Software to you, in which event you should remove the Software from your system.

THE SOFTWARE IS TO BE USED SOLELY BY A QUALIFIED LICENSED PROFESSIONAL OR QUALIFIED STRUCTURAL ENGINEER.

What is the Evaluation Version?

The Evaluation Version of the Software lets you try it out before buying it. While evaluation versions are copyrighted, and Black Mint retains all rights, Black Mint specifically grants you the right to evaluate and distribute the program as per the Evaluation Version License Grant. After using the Evaluation Version for the defined trial period, you must purchase a license by registering the program or remove the Evaluation Version from your system.

1. EVALUATION VERSION LICENSE GRANT.

Black Mint grants you the right to use one copy of the Software on a single terminal connected to a single computer for a period of 30 days from installation of the Software, in exchange for the consideration of your evaluation of the Software for purchase. You may distribute copies of this Evaluation version as packaged by Black Mint Software. You may not network the Software or otherwise use it on more than one computer or computer terminal at the same time. The Evaluation Version may be installed on your system only once without the expressed written consent of Black Mint. The Evaluation Version is not be used for commercial use and printouts are not to be disseminated or included in a design brief. The printouts are to be used in-house only, for the purpose of software evaluation.

What are the Beta Release, Educational, or other Non-Commercial Versions?

Certain time-limited versions of the Software will be made available to selected users for beta testing, education or other non-commercial use. While these versions are copyrighted, and Black Mint retains all rights, Black Mint specifically grants you the right to use the program as per the Non-Commercial Version License Grant. After using the Non-Commercial Version for the pre-defined usage period you must remove this version from your system.

2. NON_COMMERCIAL VERSION LICENSE GRANT.

Black Mint grants you the right to use one copy of the Software on a single terminal connected to a single computer for a pre-defined usage period. The Non-Commercial Version is not be used for commercial use.

What is the Registered Commercial Version?

You may extend your Evaluation Version of the Software to a Registered Commercial Version by registering with Black Mint and purchasing a license. This will allow you to use the Software within the full privileges and limitations of the Registered Commercial Version License Agreement.

3. REGISTERED COMMERCIAL VERSION LICENSE AGREEMENT

The Software which accompanies this license is the property of Black Mint, or its licensors and heirs, and is protected by Canadian copyright law and international treaty provisions. While Black Mint continues to own the Software, you will have certain rights to use the Software after your acceptance of this license. Except as may be modified by a license addendum which accompanies this license, your rights and obligations with respect to the use of this Software are as follows:

YOU ARE ALLOWED TO:

- (i) use only one copy of the Software on a single computer;
- (ii) make one copy of any software media provided by Black Mint for archival purposes, or copy the software onto the hard disk of your computer and retain the original media for archival purposes;
- (iii) use the Software on a network, provided that you have a license for the Software for each computer that has sufficient privileges to access the Software over that network (the Software may not be specifically designed for network installation - please see the installation documentation);

(iv) physically transfer the Software from one of your computers to another provided that you conform to the license conditions.

(v) if a single person uses the computer on which the Software is installed at least 80% of the time, then that person may also use the Software on a single home or portable computer.

YOU ARE NOT ALLOWED TO:

(i) copy or duplicate any written materials which accompany the Software;

(ii) sublicense, rent or lease any portion of the Software;

(iii) reverse engineer, de-compile, disassemble, modify, translate, make any attempt to discover the source code of the Software, or create derivative works from the Software;

(iv) provide any person or persons with the license key provided by Black Mint. In other words, the license key is for the party who has effected a proper registration payment to Black Mint and neither the registrant nor any other party may give or otherwise transmit a license key to any other party; or

(v) install this software onto any computers that are not the property of the person or entity who legally acquired or registered the Software.

4. SOFTWARE UPDATES

Black Mint reserves the right to revise this software program and make changes from time to time to the content of the software program and any accompanying written materials, including this license agreement.

5. LIMITED WARRANTY

RETURNS OR REFUNDS FOR SOFTWARE LICENSES CANNOT BE GRANTED. Please use the evaluation version of the software to carefully evaluate the software, as well as any and all available product information, before making your purchase. Black Mint will only replace defective media or lost license keys.

BLACK MINT DOES NOT WARRANT THAT THE SOFTWARE WILL OPERATE ERROR-FREE OR UNINTERRUPTED, OR WILL MEET YOUR REQUIREMENTS. THE SOFTWARE AND RELATED DOCUMENTATION IS LICENSED "AS IS" AND BLACK MINT HEREBY SPECIFICALLY EXCLUDES AND DISCLAIMS ALL WARRANTIES AND CONDITIONS, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND OF FITNESS FOR A PARTICULAR PURPOSE, STATUTORY NONINFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS AND ANY WARRANTY THAT MAY ARISE BY REASON OF TRADE USAGE, CUSTOM OR COURSE OF DEALING AND YOU HEREBY EXPRESSLY WAIVES ANY AND ALL SUCH WARRANTIES IN RESPECT THEREOF.

6. LIMITATION OF LIABILITY

This Software has been designed for use by qualified professional engineers. It is the user's responsibility to ensure that the input for the Software is complete and correct, and that the results provided by the Software are interpreted correctly and conform to any design codes, standards and government regulations which may apply.

YOU ASSUME THE ENTIRE RISK AS TO RESULTS AND PERFORMANCE OF THE SOFTWARE. UNDER NO CIRCUMSTANCES SHALL BLACK MINT OR ITS LICENSORS BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, EXEMPLARY OR CONSEQUENTIAL DAMAGES OF ANY KIND OR NATURE WHATSOEVER, ARISING OUT OF OR IN ANY WAY RELATED TO THIS AGREEMENT, THE SOFTWARE OR THE USE OF OR INABILITY TO USE THE SOFTWARE, INCLUDING, WITHOUT LIMITATION, LOST GOODWILL, LOST PROFITS, LOSS OF DATA OR SOFTWARE, WORK STOPPAGE OR IMPAIRMENT OF OTHER GOODS, AND WHETHER ARISING OUT OF BREACH OF WARRANTY, CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE OR IF SUCH DAMAGE COULD HAVE BEEN REASONABLY FORESEEN, AND NOTWITHSTANDING ANY FAILURE OF ESSENTIAL PURPOSE OF ANY EXCLUSIVE REMEDY PROVIDED HEREIN. IN ADDITION, IN NO EVENT SHALL BLACK MINT'S OR ITS LICENSORS TOTAL LIABILITY RELATING TO OR IN CONNECTION WITH THIS LICENSE AGREEMENT OR THE SOFTWARE, WHETHER BASED ON BREACH OF WARRANTY, BREACH OF CONDITION, BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE, EXCEED THE ACTUAL AMOUNT OF THE INITIAL LICENSE FEE PAID TO BLACK MINT FOR THE SOFTWARE GIVING RISE TO THE LIABILITY, NOR SHALL BLACK MINT BE LIABLE FOR THE COST OF PROCUREMENT OF SUBSTITUTE SOFTWARE OR SERVICES. NO ACTION OR CLAIM RELATING TO THIS LICENSE AGREEMENT OR THE SOFTWARE MAY BE INSTITUTED MORE THAN SIX MONTHS AFTER THE EVENT GIVING RISE TO SUCH CLAIM.

7. TRADEMARKS

Concise, Concise Beam, and the Concise Beam logo are registered trademarks of Black Mint Software, Inc. Black Mint Software's logo, is a trademark of Black Mint Software Inc.

8. TERMINATION

This License Agreement and the license granted hereunder is effective in perpetuity unless terminated as provided for herein. Black Mint shall have the right to terminate this License Agreement and the license granted herein immediately without further notice if Licensee fails to comply with any provision of this License Agreement or fails to pay in full the fees for the Software. Black Mint shall have the right to terminate this License Agreement and the license granted herein upon ten (10) days written notice if you i) terminate or suspend business; ii) become subject to any bankruptcy or insolvency proceeding; iii) become insolvent or becomes subject to control by a trustee, receiver or similar authority, or iv) are wound-up or liquidated, voluntarily or otherwise. Upon termination you shall remove all copies of the Software or any part thereof from your computer and destroy the same, and shall destroy all related documentation.

9. ASSIGNMENT

You shall not assign, sublicense or otherwise transfer this License Agreement or its obligations hereunder to anyone, including any parent, subsidiaries, affiliated entities or third parties, or as part of the sale of any portion of its business, or pursuant to any merger, consolidation or reorganization, without Black Mint's prior written consent.

10. GOVERNING LAW

This License Agreement is governed by the laws of the Province of Ontario and the federal laws of Canada applicable therein without regard to conflict of laws, rules and principles. The United Nations Convention on Contracts for the International Sale of Goods is specifically excluded.

11. MISCELLANEOUS

If any provision hereof shall be held illegal, invalid or unenforceable, in whole or in part, such provision shall be modified to the minimum extent necessary to make it legal, valid and enforceable, and the legality, validity and enforceability of all other provisions of this License Agreement shall not be affected thereby. No delay or failure by either party to exercise or enforce at any time any right or provision hereof shall be considered a waiver thereof, or of such party's right thereafter to exercise or enforce each and every right and provision of this License Agreement. This License Agreement supersedes all prior oral and written and all contemporaneous oral negotiations, commitments and understandings of the parties.

What You Need to Run Concise Beam

To install and run Concise Beam you simply need a computer that can run Windows 98 or later, five (5) megabytes of available hard disk space, and a Windows configured printer.

To obtain the current version of Concise Beam, future updates, and technical support you will also need access to the World Wide Web (the Internet) and preferably an Internet accessible e-mail account.

Obtaining and Installing Concise Beam

Concise Beam and all of its updates will be distributed through Black Mint Software's web site at <http://www.BlackMint.com>. At this site you will find directions to the Concise Beam download page and instructions on downloading the Concise Beam Setup program. We recommend that when you download the Concise Beam Setup program that you select your Desktop as the destination for the download. After installing Concise Beam you may move the Setup program file to a more suitable location for storage.

In install Concise Beam double click on the Concise Beam Setup program icon on your Desktop (or where ever you chose to download it). Follow the simple instruction in the dialog's presented to you.

New versions of Concise Beam may be installed in the existing Concise Beam directory. The new files may over-write the older files. For this reason we recommend that you do not alter any of the files distributed with Concise Beam since they then may be replaced, thus losing your modifications. This is particularly true of the standard library files distributed with Concise Beam. These files will be distributed as read-only files to prevent them from being over-written.

Using the Evaluation Version and Obtaining a Licensed Version

When you first download Concise Beam you will have an unlicensed evaluation copy of the program. You may use this evaluation version of the program for 30 days in order evaluate the program. Please make the best use of this evaluation period since Black Mint Software is not able to offer a money back guarantee. You are also not able to install the program again for a further evaluation period. Please review the End-User License Agreement for further details.

When you are satisfied that Concise Beam can meet your needs you can obtain a license key from Black Mint Software to unlock the program for licensed use. This key will also allow you to update your copy of Concise Beam for a defined period, generally one year. To obtain the key please go to Black Mint Software's web site at <http://www.BlackMint.com> and follow the links to the Concise Beam order page. There you will find complete instructions on ordering and obtaining the license key.

Uninstalling Concise Beam

During installation an icon for uninstalling Concise Beam was placed in the Concise Beam group in the Programs section of the Windows Start menu. Selecting this icon will start the uninstall program where you can follow the simple dialogs to completely remove the program from your computer. You may also use the Add/Remove Programs item in the Windows Control Panel to uninstall Concise Beam.

Any files that you create in the Concise Beam directory will not be removed when uninstalling the program. This will also prevent the Concise Beam directory from being removed.

How to Get Started with Concise Beam

During installation an icon for Concise Beam was placed on the Windows Desktop and in the Concise Beam group in the Programs section of the Windows Start menu. There are also icons for this guide, the manual, and a number of other informational files.

Start the program by double-clicking the Desktop icon or selecting the icon from Start Menu.

If you have never used Concise Beam before we recommend that you enter the help system (manual) by hitting the F1 key. In the table of contents of the help system you will find a number of How To ... topics and tutorials. Working through the tutorials in order will give you the best and most comprehensive introduction to Concise Beam.

If you have used Concise Beam version 3.5a or earlier you should be fairly comfortable with the program with some reference to the help system.

What's New in Concise Beam Version 4 for Users of Version 3.5 or Earlier

Version 4 has a completely rewritten user interface and many technical changes and enhancements but is generally similar to version 3.5a in function. One notable difference is that the user no longer has to explicitly perform the analysis or design check. If sufficient information is available then the design check is performed automatically when the user enters either the Reports (formerly tables) or Graphs (formerly diagrams) dialogs to view the results. If the design check could not be completed then only the analysis reports/graphs are available. The analysis and design Reports and Graphs have been collected together under the Solution menu.

Version 4 uses a different file format than version 3.x (versions 3.1 to 3.5a). Version 4 can read version 3.x files (but not version 1.x and 2.x) but not visa-versa. If you would like to compare the results of version 3.5a against version 4 then you should create and run the problem in version 3.5a first and then try it in version 4 (perhaps saving it under a different name and in a different directory). Please send us any version 3.x files that cannot be read by version 4.

Version 4 has changed the way the Auto Save option works. In version 4 the Auto Save option will save the problem when exiting from each dialog. Version 3.5a used a timer. The Auto Save setting can be saved by the Save Current Settings item in the Options menu.

For a complete list of the changes between version 3.5a and version 4 you can open the Revision History.txt text file in the Concise Beam group in the Programs section of the Windows Start menu.

Getting Help

Your first, and best, source of help is the context-sensitive on-line help system (manual) supplied with Concise Beam. You can access this manual by hitting the F1 key at any time while the program is open. If you are in a dialog or window that has a manual topic associated with it you will be taken directly to that topic. Otherwise you will be taken to the table of contents for the manual. You can also select Concise Beam Manual & Tutorials from the Help menu. An icon for the help system has also been placed in the Concise Beam group in the Programs section of the Windows Start menu.

Please keep in mind that short help tips will be displayed beside the mouse pointer or in the status bar at the bottom of the program window when you place the mouse pointer over a toolbar icon or menu item.

If you can't find an answer to your question in the on-line help system then please contact us,

by e-mail at support@BlackMint.com,

or through our web site at www.BlackMint.com.

When contacting us by e-mail please provide us with the following;

- your License Holder name (which you can see in the Problem Title and User Identification dialog in the Define menu), or note that you're evaluating the program,
- the version number of the copy of Concise Beam you are using (About Concise Beam item in the Help menu), and
- the version of Windows you are using (i.e. Windows 98)

We can provide telephone and fax support, though we don't generally publish the numbers since they may change. Please contact us first by e-mail and request that we call you or ask for our phone and fax number.

User Input and Feedback

Concise Beam is built upon the needs of it's users! We strongly encourage your input on both the software and the written material, such as this guide, which accompanied the software. All comments, criticisms, suggestions or accolades are welcome. Input or feedback on Concise Beam can be sent to support@BlackMint.com. You may also want to look at the Concise Beam Future Plans page on our web site, www.BlackMint.com, to see what we are planning for the future and how you can provide your input. If you've had problems with the program, please include any problem files that show the problem.

Dave Marshall, P.Eng.
President,
Black Mint Software, Inc.
DaveMarshall@BlackMint.com