

This file details all program enhancements and revisions.

For the most recent changes, scroll to the end of the file.

Quikbeam release 1.00

08-12-99

The installation disk contains the following program releases:

- Quikbeam release 1.00
- Install.exe release 3.10
- Uninstal.exe release 2.21
- Quiknet.exe release 1.01
- DC.exe release 1.00

This is the first official release of Quikbeam. It is fully functional and ready for sales.

Quikbeam (Like Merlin and Quik5950) comes in two versions:

- 16 bit for Windows 3.11
- 32 bit for Windows '95, '98, NT and 2000

Separate delivery disks are supplied for each version, the disk should be clearly marked. Make sure you have the right one.

Quikbeam release 1.01**17-01-00**

The installation disk contains the following program releases:

- Quikbeam.exe release 1.01
- Install.exe release 3.10
- Uninstal.exe release 2.21
- Quiknet.exe release 1.01
- DC.exe release 1.00

The changes are:

1. During lateral torsional buckling checks for I, C and Tee sections, the printed results now give more intermediate values; in particular values of u and v . *QB R1.01-01*
2. Composite beams, final stage. The deflection diagrams showed a value for deflection based on the inertia of the non-composite beam. This is fixed. The diagrams now account for the inertia of the composite beam (uncracked) and include additional shear deflection due to partial shear connection. See 6.1.4.
3. Composite beams, final stage. Deflection limits were always assumed to be applied to unfactored live and never unfactored dead. That is to say that the program always used its default settings. This is corrected. *QB R1.01-02*
4. Composite beams, final stage, deflections. Both the summary and the detailed calculations have additional text to explain how the total deflection is determined and how pre cambering may be used to counter the affects of dead load deflection. *QB R1.01-03*
5. Composite beams, Error 13701 fixed. During Composite design's shear capacity check, Quikbeam was using the most positive value of shear instead of numerically largest. That is to say, if the largest value was negative, it would be ignored. This fault also had the effect (*where shear ought to have been zero*) of producing small negative residual values, these were the cause of the 13701 error. *QB R1.01-04*
6. Some users were unsure of which tab was selected in the form's Construction/Final stage tab bar. A check mark is now added. *QB R1.01-05*
7. Complaints about the *Input Wizard - Loads* form being crowded are resolved. The bottom right of the form now sports an arrow. Click on it and the form is made larger. *QB R1.01-06*
8. In release 1.00, if a beam was fully input including loads, then attempting to reduce its span would produce a warning message advising that the loads/restraints should be changed first. This was unhelpful, particularly when engineers were using the *File|Save as* option to produce a similar beam, but of different span. Quikbeam now traps span changes and issues the following message: *Span has changed. Quikbeam will adjust the start and finish dimensions for all loads and restraints. You should check that these adjustments are correct.* *QB R1.01-07*

Quikbeam release 1.02

11-02-00

The installation disk contains the following program releases:

- Quikbeam.exe release 1.02
- Install.exe release 3.10
- Uninstal.exe release 2.21
- Quiknet.exe release 1.03
- DC.exe release 1.00

The changes are:

1. The diagram that showed the LT buckling lengths, displayed the depth factor without decimal places, so 0.5D was displayed as 0D. This is corrected. *QB R1.02-01*
2. The Supports form is modified. When designing with cantilevers the form introduces cantilever tabs and modifies the prompt to request input from the relevant table. This change both clarifies and improves the calculation of effective length factors, particularly where cantilevers are involved.
 Table 13 of BS5950 states that for cantilevers without intermediate restraints m and n should be taken as one. This rule was ignored in the previous version. Quikbeam now interprets this rule as follows: for the last unrestrained length away from the cantilever tip, Quikbeam uses the effective length factor taken from table 10 with m and $n=1.00$. All other lengths, including lengths between restraints on cantilevers, will use the rules for beams. *QB R1.02-02*
3. Quikbeam's calculated value of Mb for single unequal angles, was flawed based on a poor interpretation of the BS. BS5950 Section 4.3.8 Page 31 gives some simple formulae
 e.g. $Mb = 0.7 Py.Z$
 It states: Z is the smaller elastic modulus about the appropriate axis. Quikbeam used to calculate the Z as the minimum of Zx and Zy (*Safe*). Of course it overlooked the fact that there is actually a minimum and maximum value of both Zx and Zy and that that was the meaning of *smaller*. Fixed. *QB R1.02-03*
4. Output is enhanced. At the head of the calculations, where Quikbeam states the selected section and grade, it now adds the section orientation: *Bending about x-x axis*; or *Bending about y-y axis*. *QB R1.02-04*
5. Where a structural, tee bending about the $y-y$ axis, had an Iy greater than Ix , Quikbeam, performed erroneous lateral buckling checks. LT buckling in Tees bending like this are not covered in BS5950, or by Quikbeam. Under these circumstances, Quikbeam now calculates a large value for $LambdaLT$ which ensures the section fails. *QB R1.02-05*
6. Two new options: *Modify|Check*; *Modify|Design*. Both display a short version of the corresponding Wizard and provide a faster and more convenient method of returning and trying different sections. *QB R1.02-06*
7. For composite beams, the *Check Wizard - Result* form now has *Shear Stud* and *Transverse shear* buttons. *QB R1.02-06*
8. Right clicking in Quikbeam's Window now displays a pop-up menu. The pop-up menu contains the same options as the *Modify* menu. *QB R1.02-06*
9. Future major release upgrades of Quikbeam (*Moving from 1.02 to 2.00*) will now require the user to input an upgrade code. The upgrade code will be supplied by the dealer. *QB R1.02-07*
10. The following applies to composite beam's only. For dead load deflection at final stage, Quikbeam produced a deflection based on the total final stage dead load for the uncracked composite section. This was not correct. The program now calculates the deflection based on the additional dead load at final stage. The construction stage dead load deflection is then added to produce the total which is published in the summary and detailed calculations. The deflection diagram, both on-screen and in the results is also

modified to show the reduced value. Finally, the title displayed with the diagram for the final stage deflection now reads: *Deflection due to additional dead load.* *QB R1.02-08*

11. The pop-up menu in the loads input form now has a new: *Delete all loads* option. *QB R1.02-09*
12. The following fault manifested itself in the sixteen bit version only: start Quikbeam; open an existing file; close Quikbeam; EGPFault displaying message *general protection fault in module QUIKBEAM.EXE at 002F:1342*. Fixed. *QB R1.02-10*
13. The *Loads - Append supported beam reactions* form is modified: if the user closes the form with the distance field as zero, the form now asks for confirmation. *QB R1.02-11*
14. On line help is upgraded to cover the above changes.

Quikbeam release 1.10**16-06-00**

The installation disk contains the following program releases:

- Quikbeam.exe release 1.10
- Install.exe release 4.00
- Uninstal.exe release 3.00
- Quiknet.exe release 1.03
- DC.exe release 1.00

The changes are:

1. ASB, Plated I sections (SFB) and Gantry girders added to Brit.sec in line with similar changes to Merlin. New sections files supplied ASTM.sec (*American sections to ASTM specifications*) and Japanese.sec (*Japanese wide flange shapes*). Parallel flange channels (PFC) are now included in Brit.sec. Users upgrading from earlier versions of Quikbeam should select the new option *File|Sections* and delete the old sections file PFC.sec. (*see item 2*). Failure to delete PFC.sec will cause Quikbeam to list each PFC twice. *QB R1.03-01*
2. Option *File|Sections* added. This new option displays a list of the available sections files. You may select a file and either: display its properties (*Type, version, description, author, organisation and read-only*); or delete the sections file from the current installation of Quikbeam. *QB R1.03-16*
3. Quikbeam is now supplied with more comprehensive and up to date steel deck, concrete and stud files: Quikbeam.dec; Quikbeam.con; Quikbeam.stu. User's upgrading who have defined there own decks, concretes, or studs should note down their additions/changes prior to installing the new version of Quikbeam. *QB R1.03-18*
4. Because Quikbeam now deals with asymmetric sections, additional logic has been added to decide the compression flange and properly determine its flange classification and value of *N* for the calculation of '*v*' used in lateral torsional buckling calculations. *QB R1.03-02*
5. Quikbeam's *Select section* form, accessed in *Check Wizard* and through the *Check* option on the *Modify/Popup* menu is improved. The *Axis* drop down list box is removed, instead the program draws the cross section shape and supplies an orientation button. Each click on the orientation button (*or section diagram*) rotates the section ninety degrees. An invalid orientation e.g. an ASB bending about its y axis, can't be selected. *QB R1.03-07*
6. Again the *Select section* form. If user entered the *Select section* form with no section selected, then clicked on the serial size list box, dragged the mouse out, and released the button an error 30001 would occur. Fixed. *QB R1.03-05*
7. Extra logic is added so that Quikbeam can store Merlin's sections and properly deal with the changes in data structure that occur with different versions of Merlin and or Quikbeam. *QB R1.03-06*
8. Quikbeam's *Options|Font* dialog now offers only TruType fonts. Non-TrueTypes don't rotate reliably, this may have been the cause of the following reported fault: *Access Violation 00489ac6*. Also see item 14. *QB R1.03-08*
9. Within the *Loads* form, the *Append supported beam reaction* and *Append floor loads* options could both append loads with zero intensity. This caused Quikbeam to flag an input error prior to design/checking. This is fixed:- zero loads are no longer appended.
Also: both these options will automatically add restraints due to the floor slab or supported beam. However, it used to be possible by repeated use, to obtain many restraints in the same place. Quikbeam now checks for a previous restraint, if it finds one it modifies it, otherwise it adds the new one. *QB R1.03-09*
10. Project manager's *Backup, Restore, Copy* and *Delete* options are overhauled to include checking and messages for all types of disk error (*including out of space!*). *QB R1.03-10*

11. The *File|Project manager|Options* option now permits the selection of either: backup to a removable drive (*Zip and CD-R's included*); or backup to a remote drive (*across a network*). See on-line help. *QB R1.03-11*
12. The *File|Project manager|Create* form is changed to include the project title. The project title can now be entered without having to select *File|Project manager|Title*. The form that selects projects in the: *Backup; Restore* and *Delete* options, now displays the title for the selected project. *QB R1.03-12*
13. Quikbeam's results now show a diagram immediately before the calculation summary. The diagram shows the selected section in its selected orientation. *QB R1.03-13*
14. The following fault manifested itself in the 32 bit version only: start Quikbeam use *File|Open* and select B1, use *File|Open* again and select B2. Closing either file caused an access violation with a *Read of address error*. *QB R1.03-14*
15. In composite construction, if the user entered final loads that were less than the construction stage loads, *fc* could be negative causing the program to crash with a 13701 error. This is fixed, plus in summary of results, Quikbeam displays the comment: *fc<0.0 check loading*. *QB R1.03-15*
16. Web openings: prior to viewing the calculations, Quikbeam now checks all openings for compliance with the guidelines in Section 9 (p20) of the guide. If the openings do not conform the program shows a warning dialog containing a *'Show warning next time'* check box, and a Help button leading to context sensitive help explaining the problem. *QB R1.03-17*
17. Bison slabs are added to deck, concrete and stud tables. See example beam design *Bison.qb* installed in project *NoProj*. *QB R1.03-19*
18. The composite and stud forms accessed from the *Input Wizard* and *Modify* menu now have buttons that access the forms for adding custom decks, concretes and studs. *QB R1.03-20*
19. The *Decks, Concretes* and *Studs* forms accessed under the *File* menu have the following bug fixed. No matter how the tables were changed. The number of items would remain the same. *QB R1.03-21*
20. In the printed output, some of the formulas for the composite moment capacity were wrong in that the squared term had shifted. This did not effect the calculated results.
21. Composite design: during detailed output for the transverse shear check, to make checking easier, Quikbeam now prints more results. *QB R1.03-22 QB*
22. Bison recommend that when designing with their hollow core floors the plastic neutral axis should **never** be higher than 50mm above the top flange of the steel beam. Quikbeam has been modified so that this information is readily available:- The summary of results output now includes the position of the plastic neutral axis. If the axis is in the concrete, the program states its position down from the top. *QB R1.03-23*
23. Clause 5.4.5.4 *Large concrete flanges* of BS5950:Part 3:Section 2 defines a large concrete flange in terms of the composite beam having a moment of resistance greater than 2.5 times that of the steel beam alone. In determining the composite moment of resistance, Quikbeam now assumes the beam to have a full shear connection. Beams having 'Large concrete flanges' are subject to an intermediate capacity check in accordance with 5.4.5.5 *Alternative method*. as a consequence, more beams will be subjected to an intermediate check than would previously have been the case. *QB R1.03-24*
24. The *Decks, Concretes* and *Studs* forms accessed from the *File* menu and used to define custom decks, concretes and studs now have a *Return to defaults* button. Pressing this button, first asks for confirmation, then re-sets the table to Quikbeam's delivery content. *QB R1.03-25*
25. On-Line help is extended and improved.

Quikbeam release 2.00**15-03-01**

This release of Quikbeam operates in accordance with BS5950:Part 1:2000.

Quikbeam is supplied in self-extracting zip files:-

For Windows '95 '98 NT and 2000:

QB-32-200.exe

QB-32-del.exe

For Windows 3.1:

QB-16-200.exe

QB-16-del.exe

If you are supplying on disk, rename the first file INSTALL.EXE and the second UNINSTAL.EXE

The self extracting files contain the following program releases:

- Quikbeam.exe release 2.00
- Install.exe release 4.00
- Uninstal.exe release 3.00
- Quiknet.exe release 1.03

If you are installing on a network you should obtain: *Quiksoft for Windows Network supplement*.

1. Much of Quikbeam is rewritten to operate in accordance with the amended BS5950:Part 1:2000. All capacity, classification, LT buckling, combined bending checks have been rewritten and the program output reworked. *QB R2.00-01*
2. Cold formed hollow sections added (CF-CHS, CF-SHS and CF-RHS). CHS, SHS and RHS become HF-CHS, HF-SHS and HF-RHS. *QB R2.00-01*
3. This release of Quikbeam will require the user to enter a release code. A major release is when the first digit changes so: upgrading from release 1.12 to 2.00 will require a dealer supplied code; upgrading from 2.00 to 2.11 will not. *QB R1.02-07*
4. A slight glitch could happen when sections were defined using Merlin. If a new tee section was defined in Merlin of type 'Tee' as opposed to 'TEE' and then exported it could not be selected in Quikbeam. The problem was to do with upper or lower case letters. When Quikbeam built the list of section types it compared Tee with TEE and said they were the same, so did not add it to the section type list. When Quikbeam built the serial list it compared Tee with TEE and said they were different, so the section serial did not get added. Fixed. *QB R2.00-02*
5. There was an access violation problem associated with Quikbeam's 123 form. Because of programming inconsistencies when displaying the progress box, it was possible to get two Quikbeam 123 forms running at the same time. This caused subsequent problems. *QB R2.00-03*
6. Changing the file description or other header information whilst the results were displayed failed to update the screen. Fixed. *QB R2.00-04*
7. Selecting *File|DXF* resulted in an error 12909 caused by the addition of the *Options|Sizes* option. Fixed. *QB R2.00-05*
8. Selecting *File|DXF* when results were selected gave an error 32005. The *File|DXF* and *File|DXF Setup* options are now disabled when results are displayed. *QB R2.00-06*
9. Results output for compound sections now include: *Comprising:-* with a list of the component materials. *QB R2.00-07*
10. Ward Multideck80 1.2 was listed as being 81 mm deep. The default tables have been changed to 80 mm deep to stay within the deck dimensions laid out in BS5950:Part 3:Section 3.1 clause 5.4.7.1(a): *The overall depth of the profiled sheet should be not less than 35mm nor greater than 80mm.* *QB R2.00-08*

11. Existing users should select the *File|Decks* option and either change the depth of the Multideck80 to 80.0, or click on the Return to defaults button. Note if the return to defaults button is used any additional decks added by the user will be lost.
12. An error due to the addition of the *Headings* tab for Merlin in the *File|Paper setup* option occurred. This is fixed. *QB R2.00-10*
13. Printing results. If more than one copy was selected, Quik5950, Quikbeam and Merlin could produce too much output. The fault was dependant on version 16bit/32bit operating system and printer driver, so not all users will have found it. *Q5 R2.00-12*
14. The operation of the *Load case* and *Combinations* forms are improved and simplified. These forms are now by-passed during composite design. Composite design can use the default load cases *Dead* and *Imposed* only (as before). For normal simple steel design, load cases and combinations can be altered freely at any time. If a load case is edited, deleted or inserted the combinations and loads will be automatically updated. *QB R2.00-14*
15. The *Construction type* form has new code to ensure that a simple beam with non-standard load cases or combinations is not changed to Composite. *QB R2.00-14*
16. The On-line help is uprated and improved.

Quikbeam release 2.10**03-10-02**

Quikbeam is supplied in self-extracting zip files:-

For Windows '95 '98 NT 2000, XP:

QB-32-210.exe for installation
QB-32-del.exe for un-install

Windows 3.11 is no longer supported

The self extracting files contain the following program releases:

- Quikbeam.exe release 2.10
- Install.exe release 4.00
- Uninstal.exe release 3.00
- Quiknet.exe release 1.03

If you are installing on a network you should obtain: *Quiksoft for Windows Network supplement*.

1. This version of Quikbeam was produced using a more modern compiler (*Delphi 7*). Some minor code changes were required. *QB R2.01-07*
2. When designing with angles, QuikBeam could produce either an 'Invalid floating point', or 'attempt to assign to a nil pointer' error. Fixed. *QB R2.01-01*
3. 3. When inputting loads, Quikbeam looks at the data and ensures that the values are within a prescribed range. The maximum value for point and distributed loads was too small and has been increased. *QB R2.01-02*
4. During validation of user input, Quikbeam checks that distances are less than the beam length. However because of the vagaries of computers and real numbers, if the actual beam length was entered, Quikbeam could wrongly flag an error. *QB R2.01-02*
5. When the *Edit|Copy* for Quikjoint option is used a form is displayed. The form still used the 'old' steel grade designation (*Grade 43, 50, 55*). Fixed. *QB R2.01-03*
6. Quikbeam's *File|Project manager|Backup* option makes a special check to ensure that floppy disks are present in the drive before it starts copying files. Unfortunately the check was flawed and the program failed to accept completely blank disks. Disks with one or more directory, file, or disk label were fine. Fixed. *QB R2.01-04*
7. Angles must have their *Mx* moment resolved into moments about the angles principal axes (*Mu* and *Mv*). The code that did this was flawed in that it took no account of the angles orientation. Fixed. *QB R2.01-05*
8. Angles - the output refers to clause J.4.2. It should have read I.4.2. Fixed. *QB R2.01-06*
9. The code that calculated the effective area *Aeff* of channel sections contained a fault. Users may like to know that they could never have encountered this fault since all Quiksoft programs design slender channels by reducing *Py*. They do not use effective properties for channels. *QB R2.01-08*
10. A fault was found in the *Restraints - Change* form. The form left some data un-initialised which sometimes caused a crash when the form was closed. Fixed. All forms in Quikbeam have been checked and a similar fault repaired in the *Loads - Change* form. It is thought unlikely that this fault would have affected the correct operation of the program. *QB R2.01-09*
11. Part of the output for lateral torsional buckling of angles was missing. Fixed. *QB R2.01-10*

The new *BS5950 - 2000* standard replaced *m* and *u* with *mLT*. Along with the rewrite of this part of the standard, the requirement that for asymmetric sections *mLT* etc. be taken as one, was removed from the text. At this point in time it is not absolutely clear if this was intentional. We think it is correct to use non-unity values for asymmetric sections (including angles). However until the situation is clarified Quikbeam and Quik5950 will be using values of 1.00. *QB R2.01-11*

For left hand cantilevers the calculations showed the beam deflection limit instead of the cantilever limit. The calculations were correct. Fixed. *QB R2.01-12*

12. Due to a fault, the calculated deflections for the tips of cantilevers (most likely a left cantilever), could be wrong. This is corrected. *QB R2.01-12*

Quikbeam release 2.11**05-11-02**

Quikbeam is supplied in self-extracting zip files:-

For Windows '95 '98 NT 2000, XP:

 QB-32-211.exe for installation

 QB-32-del.exe for un-install

Windows 3.11 is no longer supported

The self extracting files contain the following program releases:

- Quikbeam.exe release 2.11
- Install.exe release 4.00
- Uninstal.exe release 3.00
- Quiknet.exe release 1.03

The changes in this release are as follows:

1. Release 2.10 was produced using a more modern compiler (*Delphi 7*). Release 2.10 of Quikbeam went with Delphi's new default of eight byte reals.
2. For loading and storing Quikbeam data files it converted back to six byte reals, however this caused problems when comparing numbers.
3. Quikbeam release 2.11 has returned to using the old six byte real numbers. *QB R2.11-03*

Quikbeam release 3.00**21-11-07**

Quikbeam release 3.00 runs under all versions of Windows from '95 to Vista and is supplied in a single self extracting file: QB32-300.exe. This self extracting file contains a Setup program that will automatically guide you through program installation upgrade, removal and registration.

See: *Program installation, upgrade and removal* in the *Quikbeam User's Guide*.

The changes to Quikbeam are as follows:

1. Quikbeam and its setup program are now fully Microsoft Vista compliant. Under Vista the Setup program will automatically elevate and request an administrator password. Under Windows XP the Setup program should be run with administrator privileges. See: *Program installation, upgrade and removal* in the *Quikbeam User's Guide*.
2. The Setup program is now used to unlock licensed and demonstration copies.
3. Program logic has been moved from Quikbeam to its setup program enabling Quikbeam to operate under a standard user account in both Windows XP and Vista. *{Vista}*
4. Prior to this release, changes to the decking, concrete and stud tables were stored in the program directory. This is not permitted under either Microsoft Vista or XP when running with reduced privileges. Quikbeam is now modified so that any changes are stored with the user's project in a folder called 'Quiksoft data'. See On-line help. *{Vista}*
5. Quikbeam's user interface (*speed button spacings*) are tidied in keeping with the other Quiksoft programs.
6. The *Edit|Copy from Quikjoint* options are modified so that they operate under Vista. Please note that under Microsoft Vista and Windows XP with reduced privileges this will require a new Quikjoint release. All other situations should operate correctly as before. *{Vista}*
7. The *File|DXF* options now accepts file names greater than eight characters in length. *{Vista}*
8. There could be a problem operating Quikbeam under languages other than English. Most European language settings use a comma instead of a full stop as a decimal separator. This caused the Windows routines that perform decimal conversion to view the decimal point '.' as an error, causing Quikbeam to crash at start-up. Now Quikbeam always uses a full stop as a decimal separator overriding the Windows settings. This is not a perfect solution for European users, but at this stage is considered the most robust. Also see next item. *QF R7.40-05*
9. Quikbeam now accepts a ',' as keyboard input for a decimal separator. Internally the program converts this to a decimal point '.'. *QF R7.40-08*
10. Quikbeam's *File* menu now sports a *Reopen* option. The *File|Reopen* option is used to open recently used files. *QB R3.00-01*
11. A *Send* option is added to Quikbeam's *File* menu. This new option will attach the current beam file to an outgoing e-mail message. *QB R3.00-02*
12. Quikbeam's scrolling calculations windows are replaced with the newer versions shared by the other Quiksoft programs. These enable the text to be searched, saved, copied to other programs (*Copy and Paste*) and sent via e-mail.
13. Quikbeam's table of steel decks is updated. *QB R3.00-04*
14. The *Composite* form now includes a note that manufactures info must be consulted and asks the user to reference the help system. *QB R3.00-05*
15. A possible error 13105 is fixed. The error occurred when viewing the deflection diagram for a beam with two cantilevers. *QB R3.00-03*
16. A possible error that could affect Quikbeam's installation is fixed. Where the program compares drive letters it failed to raise both to uppercase before the comparison. Fixed. *QB R3.00-06*
17. Quikbeam's on-line help system is now based upon compiled HTML rather than WinHelp2.0 which is no longer supported under Vista.

- 18.** Quikbeam's Help is extended to cover it's new features, including up to date manufactures contact details and links to technical details on the world wide web.

Quikbeam release 4.00**14-05-10**

Quikbeam release 4.00 runs under all versions of Windows from '95 to Windows 7 and is supplied in a single self extracting file: QB32-400.exe. This self extracting file contains a Setup program that will automatically guide you through program installation upgrade, removal and registration.

See: *Program installation, upgrade and removal* in the *Quikbeam User's Guide*.

The changes to Quikbeam are as follows:

1. Quikbeam now includes design to Eurocode (EN 1993-1-1:2005 and EN 1994-1-1:2004). *QB R3.01-03*
2. A new option is added to the Help menu: *Purchase design modules*. After installation or upgrading you must use this option to unlock the BS5950/Eurocode design modules. *QB R3.01-05*
3. Quikbeam's composite beam design is modified to incorporate changes required by BS5950-3.1:1990+A1:2010. *QB R3.01-01, QB R3.01-04*
4. Changes to composite design as recommended by AD 266. *QB R3.01-02*
5. Modifications to the On-line help system to incorporate the above changes. *QB R3.01-06*

Quikbeam release 4.01**27-05-10**

Quikbeam release 4.01 runs under all versions of Windows from '95 to Windows 7 and is supplied in a single self extracting file: QB32-401.exe. This self extracting file contains a Setup program that will automatically guide you through program installation upgrade, removal and registration.

See: *Program installation, upgrade and removal* in the *Quikbeam User's Guide*.

The changes to Quikbeam are as follows:

1. Quikbeam now shows the currently selected national annex in it's title bar: *Quikbeam - National annex: UK - [Demo1]. QS Cap-01*
2. A New menu option is added: *Options|Results options* providing easy access to the *Results options* form. This form contains a new *Eurocode* tab where the current national annex settings can be output in the printed results. Note that the *Results options* form was formerly the *Calculation options* form.
QB Cap-02
3. The PageUp/PageDown keys now work in the results preview. *QB R4.00-01*
4. Starting Quikbeam by double clicking on it's data file resulted in an error: 11106. Fixed. *QB R4.00-02*
5. Error 32003 is fixed. This was due to spans or cantilevers being less the 0.100 metres. The limit is now reduced to 0.025 metres and the spans form now properly validates and produces a message preventing input that could cause an error. *QB R4.00-03*
6. Release 4.00 implemented the reduced stud capacities of BS5950-3.1:1990+A1:2010. However on longer spans with deep open trapezoidal decks the existing check for the degree of shear connection proved to restrictive. This new release includes additional logic to implement the new rules for higher ductility shear connectors (5.5.2.3a). When these rules are applied the program includes a note at the head of the calculations including a reference to 5.4.7.1 which details where these new rules are applicable.
QB R4.00-04
7. The On-line help and manual are updated.

Quikbeam release 4.02**04-06-10**

Quikbeam release 4.02 runs under all versions of Windows from '95 to Windows 7 and is supplied in a single self extracting file: QB32-402.exe. This self extracting file contains a Setup program that will automatically guide you through program installation upgrade, removal and registration.

See: *Program installation, upgrade and removal* in the *Quikbeam User's Guide*.

The changes to Quikbeam are as follows:

1. On occasions Quiksoft programs have encountered errors reading sections files. These have been due to poor versioning or user error and usually take the form of a message: *Attempt to load unregistered ClassID=????*. The programs are now modified so that the error message contains a path to the offending file. *QB R4.01-01*

Quikbeam release 4.10**07-07-11**

Quikbeam release 4.10 runs under all versions of Windows from '95 to Windows 7 and is supplied in a single self extracting file: QB32-410.exe. This self extracting file contains a Setup program that will automatically guide you through program installation upgrade, removal and registration.

See: *Program installation, upgrade and removal* in the *Quikbeam User's Guide*.

The changes to Quikbeam are as follows:

1. The following additional options are now added to the Help menu:
 - a. Visit the Quiksoft website: This option opens the Quiksoft home page on the web.
 - b. Check for latest updates: This option displays a 'Check for latest updates' form. The form will connect to the Quiksoft website and advise if program updates are available. *QS-WS-1*
2. The Quiksoft programs have encountered problems with compiled HTML help systems (.chm files) running over networks due to Microsoft enforced security issues. The recent release of *Internet Explorer 9* has made the situation even worse. Hence at start-up the program will now copy the entire help file from the server to a temporary folder on the client. The help system is then run locally. This should resolve all known HTML help issues. *QS-HLP-1*
3. Upgrading to a new release will now require a code when the digit immediately after the decimal changes e.g. Upgrading from 7.01 to 7.09 will not require an upgrade code. Upgrading from 7.09 to 7.10 will require a code. This does mean that release codes will be required more frequently, but better fits our release strategies since the effected releases often contain considerable enhancement. *QS-UPG-1*
4. After installation, unlocking Quikbeam with a demo code will now automatically unlock all design modules (Eurocode and BS5950). Design modules must still be unlocked in full purchased versions. *QB R4.01-01*

Quikbeam release 4.20**18-07-12**

Quikbeam release 4.20 runs under all versions of Windows from XP onwards and is supplied in a single self extracting file: QB32-420.exe. This self extracting file contains a Setup program that will automatically guide you through program installation, upgrade, removal, and registration.

Instructions for program installation, upgrade and removal are available on the Quiksoft web site: www.quiksoft.co.uk/quiksoftdownloads

The changes to Quikbeam are as follows:

1. Support for operating systems older than Windows XP is now withdrawn.
2. Modifications to enhance software security. *QS-23-08-11 QS-18-10-11-1*
3. The Changes detailed for release 4.10 item 3 where flawed. Fixed. *QS-26-08-11-1 QF R8.21-01 QS-04-11-11-1*
4. The Quiksoft programs show the currently selected national annex on their main window caption. However, where the national annex had not been selected the programs showed a blank. Now before a national annex is selected the caption shows 'National annex: Box' and until a new national annex is selected the Box values will be used in any Eurocode calculations. *QS-26-08-11-2 QS-18-10-11-2*
5. Value of Alphacc for the UK national annex for EN 1992-1-1 was taken as 1.00 but should have been 0.85. Also typo in National Annex change form corrected. Note that this value is not used by any program other than Quikjoint. *QS-14-12-01-1 QJR7.40-53*
6. All Quiksoft executable downloads and applications are now digitally signed using Microsoft Authenticode. For additional security the Quiksoft applications now check that the signature is intact and that the executables have not been altered or corrupted. *QS-11-04-12-1*
7. Quikbeam's Help>About form now displays the file signature status. *QS-11-04-12-1*
8. All Quiksoft executables now have extended manifest files. The WinZipSE program that we use to produce the self extracting installation file is updated to release 4.0. These changes should avoid the message: 'This program might not have installed correctly' after installation. *QS-23-04-12-1 QS-23-04-12-2*
9. Changes to network licensing to simplify deletion of logged on users. On start up, networked copies of the Quiksoft programs count the number of copies already in use (logged on users). If these exceed the number of concurrent licences a warning is produced, however from time to time because of system crashes users could remain logged on. This can be repaired by rerunning the Setup program and selecting Network server tools and Log off users.
However, now the problem can be fixed more directly from within each application by selecting a new 'Log off users' button displayed within the Licence error form. 'Log off users' now produces a report showing each file deletion. *QS-25-04-12-3*
10. The default name and address for new users used to be loaded from Quiksoft.ini in the user's Windows folder. Quiksoft.ini is a legacy 16bit windows file and will no longer be used. The default user name and address is now obtained from the program source code. *QS-27-04-12-4*
11. The Quiksoft Setup program no longer copies Quiksoft.ini into the user's Windows folder. This file was used by the old 16bit Quiksoft programs, which are no longer supported. *QS-27-04-12-5*
12. The Quiksoft logo displayed by the Setup program is modernised. *QS-27-04-12-6 QS-02-05-12-8*
13. The Quiksoft logo displayed in Quikbeam's introduction form is modernised. *QS-27-04-12-7 QS-02-05-12-8*
14. When first run, before the user's project folder was set, the Quiksoft programs sometimes created an empty folder: c:\quiksoft data\quikbeam. Fixed. *QS-08-05-12-9*
15. The Quiksoft Setup program is extensively modified to automate network installations. *QS-18-06-12-01*

16. On startup, if the licence folder is missing the Quiksoft programs now issue an error: *License folder: <Path> is missing*'. Prior to this they would report: *'There is a copy of Quik??? already running'*.
QS-18-06-12-02
17. The section in the manual and on-line help covering program installation is removed and replaced with a link to the Quiksoft web site *QS-18-06-12-03*

Quikbeam release 4.21**26-06-13**

Quikbeam release 4.21 runs under all versions of Windows from XP onwards and is supplied in a single self extracting file: QB32-421.exe. This self extracting file contains a Setup program that will automatically guide you through program installation, upgrade, removal, and registration.

Instructions for program installation, upgrade and removal are available on the Quiksoft web site:
www.quiksoft.co.uk/quiksoftdownloads

1. The changes to Quikbeam are as follows:
2. The *Help|About* form is modified with more detailed text, plus a link to the Quiksoft web site.
QS-08-11-12-01
3. The Quiksoft programs have an option to list the values of the selected National annex. Unfortunately, the values for the 'Box' national annex were displayed incorrectly. Note this affected the display of the Box national annex values only, all calculations were correct. *QS-05-06-13-01*

Quikbeam release 4.30**17-12-13**

Quikbeam release 4.30 runs under all versions of Windows from XP onwards and is supplied in a single self extracting file: QB32-430.exe. This self extracting file contains a Setup program that will automatically guide you through program installation, upgrade, removal, and registration.

Instructions for program installation, upgrade and removal are available on the Quiksoft web site:
www.quiksoft.co.uk/quiksoftdownloads

The changes to Quikbeam are as follows:

1. Quikbeam's handling of projects in modernised. Quikbeam now includes the option for existing users to switch to a new method of handling project folders. Existing users should select the menu option: *File|Project manager|Adopt new file handling*. New users will automatically be given the new file handling. See Quikbeam's Help system. *QS-09-10-13-02 QS-09-10-13-04*
2. When New file handling is selected, the headings for the printed output are modified:-
 - a. The current project is removed.
 - b. The box for the file name permits a longer file name. *QS-09-10-13-03*
3. The printed output for the Quiksoft programs now includes the full path to the data file printed just outside the margin. *QS-12-08-13-01*
4. The *Help|Purchase design modules* option no longer requires restarting Quikbeam using 'Run as Administrator...'. *QS-25-10-13-01 QS-30-10-13-02*
5. The *Help|Purchase design modules* form is updated and improved. *QS-30-10-13-05*
6. The Quiksoft programs no longer require to be unlocked by the Setup program. Instead unlock codes are requested at program start-up. *QS-29-10-13-01 QS-21-11-13-03*
7. The program's introduction form displayed for demonstration copies is generally improved and now includes number of days remaining. *QS-25-11-13-05*
8. All options to do with registration including major releases are removed from the Setup program. These are now performed at program start-up. *QS-30-10-13-01 QS-05-11-13-02*
9. For network copies Quikbeam's Help menu now includes a 'Network licence settings' option. The new option covers administration options for concurrent network copies. *QS-30-10-13-03 QS-30-10-13-04*
10. The Quiksoft installation copied Setup.exe into each applications program folder. On network server installations this could be started to quickly perform a setup on a client computer. Unfortunately many users were confusing it with the full Setup program. It is now more correctly named 'ClientSetup.exe'. *QS-05-11-13-01 QS-05-11-13-03 QS-08-11-13-04*
11. The Quiksoft program's *Browse For Folder* form was found to be unreliable when browsing deep directory structures on a network server. It is replaced with the standard windows form. *QS-08-11-13-05*
12. The Quiksoft setup program's network client setup in improved. It now includes a Search button to find the Quiksoft program on the server. *QS-19-11-13-01*
13. The project manager options under the old file handling has a Backup, Restore and Copy option. The progress bar is improved cosmetically. *QS-02-12-13-02*
14. *The Project manager|Floor loadings* menu option displays the *The Floor loadings* form containing a *Same as* button. When new folder handling is selected, Quikbeam's response to pressing this button is re-coded with a new *Select project folder* form. *QB R4.21-01*
15. Edits and updates for Quikbeam's help content. *QS-21-11-13-02 QS-21-11-13-04*

Quikbeam release 4.31**11-08-14**

Quikbeam release 4.31 runs under all versions of Windows from XP onwards and is supplied in a single self extracting file: QB32-431.exe. This self extracting file contains a Setup program that will automatically guide you through program installation, upgrade, removal, and registration.

Instructions for program installation, upgrade and removal are available on the Quiksoft web site: www.quiksoft.co.uk/installation-upgrade-and-removal

The changes to Quikbeam are as follows:

1. Eurocode steel design - Using Method 1 for the calculations of k_{ij} factors for combined buckling, the formula taken from Table A.2 of EN1993-1-1 (case 2) for $C_{mi,0}$ was presented wrongly as '1.0(' rather than '1.0 +'. Note the actual calculations performed were correct, only the representation of the formula in the on screen and printed output were wrong. *QS-15-05-14-03*
2. The new project handling contained a fault. The project title was not always updated properly. Fixed. *QS-20-12-13-03*
3. For demonstration copies the days remaining in the program's introduction form could be displayed incorrectly. Fixed. *QS-08-01-14-04*
4. The Quiksoft Help|About form now displays the Quiksoft logo. *QS-12-05-14-01*
5. The Quiksoft Introduction form for unregistered and demonstration copies now displays the latest Quiksoft banner logo. *QS-21-05-14-04 QS-12-05-14-02*
6. The Quiksoft Setup program now uses the new Quiksoft banner logo. *QS-21-05-14-04*
7. Quikport's manual is updated.

Quikbeam release 5.00**27-05-16**

Quikbeam release 5.00 runs under all versions of Windows from XP (SP3) onwards and is supplied in a single self extracting file: QB32-5.00.exe. This self extracting file contains a Setup program that will automatically guide you through program installation, upgrade, removal, and registration.

Instructions for program installation, upgrade and removal are available on the Quiksoft web site: www.quiksoft.co.uk/installation-upgrade-and-removal

The changes to Quikbeam are as follows:

1. Following the publication of 'P355: SCI: Design of composite beams with large web openings', Quikbeam now offers a choice for the Eurocode checks for web openings of using either: SN019b-EN-EU or P355. *QB R5.00-01*
2. Quikbeam now implements the rules for partial shear connection for both/either: 'PN002a - NCCI: Modified limitation on partial shear connection in beams for buildings' or 'SCI publication P405 - Minimum degree of shear connection rules for UK construction to Eurocode 4'. Check and Design wizard now have additional forms where these options can be chosen. *QB R5.00-02*
3. There was a problem in the handling of the Eurocode national annexes. The programs stored the currently selected national annex in the registry in a location used by all of the programs. However the actual data files were stored in a separate location for each member of the Quiksoft family. e.g. '...\Quiksoft\Quikbeam\UK.na3'. This was illogical. Each program now stores its current national annex separately. This makes it possible to be working in QuikEC3 using say BOX values and at the same time having Quikbeam open using 'UK' values. The default national annex is now 'UK'. *QS-16-01-15-01*
4. The form displayed when the 'Help|Check for latest updates' menu option is selected is modified. The form now directs the user to upgrade instructions on the revised Quiksoft web site. *QS-19-03-15-01*
5. This release includes a National Annex for Singapore (SS). *QS-23-04-15-01*
6. As of April 18, 2012 all Quiksoft executable downloads have been digitally signed using Microsoft Authenticode. This ensures that the downloaded files originate from us and have not been altered; reducing operating system and browser warnings associated with downloads.

As of May 27, 2016 new software releases will be signed using a more advanced system. The name on the certificate is now 'Quiksoft Limited'. Downloads should have immediate good reputation using Microsoft's Explorer and Edge browser, but others may take a little time before downloads are easily accepted without warnings. *QS-27-05-16-03*
7. Quikbeam's help and manual are updated. *QB R5.00-03*

Quikbeam release 5.01

26-01-17

Quikbeam release 5.01 runs under all versions of Windows from XP (SP3) onwards and is supplied in a single self extracting file: QB32-5.01.exe. This self extracting file contains a Setup program that will automatically guide you through program installation, upgrade, removal, and registration.

Instructions for program installation, upgrade and removal are available on the Quiksoft web site: www.quiksoft.co.uk/installation-upgrade-and-removal

The changes to Quikbeam are as follows:

1. The additional features in release 5.00 added to cover 'P355: SCI: Design of composite beams with large web openings' contained a fault. The checks on the placement of the opening according to the rules of P355 Table 2.1 could wrongly produce a warning that it was too close to a point load. *QB R5.01-01*

Quikbeam release 5.02**19-05-17**

Quikbeam release 5.02 runs under all versions of Windows from XP (SP3) onwards and is supplied in a single self extracting file: QB32-5.02.exe. This self extracting file contains a Setup program that will automatically guide you through program installation, upgrade, removal, and registration.

Instructions for program installation, upgrade and removal are available on the Quiksoft web site: www.quiksoft.co.uk/installation-upgrade-and-removal

The changes to Quikbeam are as follows:

1. Design to Eurocode now offers the option of using the combination of actions described in equations (6.10a) and (6.10b) of EN 1990 rather as well as (6.10). Note that when using this new option it is the designer's responsibility to ensure that (6.10b) does not govern. *QB R5.02-02*
2. There was a slight problem when saving new Quikbeam data files. The current project folder was sometimes not offered as the default folder. Fixed. *QB R5.02-01*
3. Modern project handling - When selecting a project folder, if the folder does not exist, Quikport now asks the engineer if he wants to create it. *QS-15-02-17-01 QP R7.50-10*
4. Quikport's 'Headers details' form used to select, among other things, the first sheet number for the printed output now performs additional data validation. *QS-17-02-17-02 QP R7.50-12*
5. The form that controls the contents of the headers in the printed output (Options|Results headers) now includes a new check box 'Show file path in margin'. *QS-04-04-17-03*

Quikbeam release 5.03

05-06-17

Quikbeam release 5.03 runs under all versions of Windows from XP (SP3) onwards and is supplied in a single self extracting file: QB32-5.03.exe. This self extracting file contains a Setup program that will automatically guide you through program installation, upgrade, removal, and registration.

Instructions for program installation, upgrade and removal are available on the Quiksoft web site: www.quiksoft.co.uk/installation-upgrade-and-removal

The changes to Quikbeam are as follows:

1. Release 5.02 of Quikbeam revealed a fault. The fault actually existed in all releases back to 4.00. If the design method was switched from BS to Eurocode, Quikbeam would 'forget' any deflection limits added by the user. In release 5.02 the routine that did this was called more frequently, the fault was therefore more persistent. Fixed. *QB R5.03-01*

Quikbeam release 6.00

09-07-2020

Quikbeam release 6.00 runs under all versions of Windows from XP onwards and is supplied in a single self-extracting file: QB32-600.exe. This self-extracting file contains a Setup program that will automatically guide you through program installation, upgrade, removal, and registration.

Instructions for program installation, upgrade and removal are available on the Quiksoft web site:

www.quiksoft.co.uk/installation-upgrade-and-removal

1. Quikbeam's opening window now includes a 'Print' icon giving fast access to the 'File|Project manager|Print project' option where all beams in the current project can be printed in a single document complete with index, summary and floor loading.
2. When checking impossibly high transverse shear to Eurocode, Quikbeam could loop and become unresponsive. Fixed. *QB R6.00-01*
3. Eurocode holes in webs (P355) - There was a small glitch in the implementation of Table 2.1 in P355. The check for the Minimum width of web post with high shear was using the value 0.5ho. Now correctly uses 0.4. *QB R6.00-02*
4. Eurocode holes in webs (P355) - The code that checks the minimum width of the web post against Table 2.1 of P355 contained a fault. Fixed. *QB R6.00-03*
5. When the 'Reactions' tab is selected the diagram now shows all web openings. *QB R6.00-04*
6. Holes in web - Eurocode – (P355) - The web posts of non-composite beams were not previously checked. Quikbeam now uses the method of P355 modified to suite. *QB R6.00-05*
7. Holes in web - Eurocode – (P355) - Quikbeam produces a warning based upon the limit described in P355 5.2.2 Page 64. Unfortunately, the check was incorrect. Fixed. *QB R6.00-06*
8. Eurocode holes in webs (P355) - AD420 has clarified the use of minimum values of shear and moment (Table 3.1 of P355). Quikbeam is modified to suite and the switch in the 'P355 settings' form is removed. *QB R6.00-07*
9. Eurocode holes in webs (P355) - A warning triggered by Table 2.1 in P355 is softened. It was being triggered when 'h_t' and 'h_b' were approximately equal. *QB R6.00-08*
10. New project handling - The form where the project folder and program data folder are selected now validates that the folders have write and create file permissions. *QS-20-09-17-01*
11. Quikbeam's 'File Open' and 'File Save as' forms are now sizable.
12. Project handling - On rare occasions users were experiencing problems when their selected project folder became invalid. It can become invalid after changes using Windows file explorer (renaming, moving, or changes to folder access permissions). The project folder and program data folder are now checked just after program start-up. If the Quiksoft programs detect a problem, they display a warning with a 'Help' button that will give information and a remedy. *QS-10-10-17-01*
13. Prior to registering as a fully licenced copy the Quiksoft programs display an introduction form. The forms main function is to accept codes to unlock the software. This form now displays the program release number. *QS-26-01-18-01, QS-12-12-18-01*
14. The customer name and address default is now Quiksoft Limited with contact details. *QS-19-07-18-01*
15. The introduction form for trial copies now includes a link to the 'Buy now' page of the Quiksoft website, displayed only when the remaining free trial days falls below seven. The same form now includes better advice (hint text) on how to copy and paste the serial number to email. The popup menu is also improved. *QS-19-11-18-01*
16. Quikbeam now automatically checks the Quiksoft website to see if updates are available on start-up. The check is made every other time the software is started. If updates are available a form is displayed with access to a direct download link and full instructions. There is also a *Snooze* option. *QS-07-03-19-01*

17. The existing form 'Check for latest updates' available from the 'Help' menu is updated to give access to the same direct download link and instructions. The form also provides an option to turn the automatic check off. *QS-07-03-19-01*
18. When a file is opened that is not in the current project, a new form is displayed asking if the user wants to change the current project folder. The new form is displayed when the Quikbeam data file is opened in any of these ways:
 - a) From 'File|Open' on the main form's menu.
 - b) From the 'File Open' icon on the main form.
 - c) From the 'File|Reopen' option on the main form.
 - d) From the 'Open recent beam file' option in the 'Quick start' form displayed at program start-up or when the Quiksoft logo is clicked.
 - e) When a Quikbeam beam file is opened with a double click from file explorer.

Note that the new form will not be displayed in any of these circumstances:

- a) When the program is still using 'old style' file handling.
- b) When there is already a Quikbeam file open.
- c) When the file to be opened is on the desktop.
- d) When the file does not have a containing folder.
- e) When the containing file can't be written to.

QS-23-04-19-01

19. DXF Output - The form that requested a file name is replaced with the standard Windows 'File save' form. The file can now be saved in any location with any name. *QS-05-06-19-01*
20. File handling routines are modified to handle file names containing '!'. Over the years file naming convention has changed. It was originally assumed that file names would only contain a single '!' and that all characters after would be the file extension. However, this seems no longer to be the case. That said we would still advise that as far as possible this be avoided. It is likely that it could cause problems when transferring files to other programs and operating systems. We have found here that servers that use Unix derivatives (NAS drives, Android, Apache etc.) have differing standards. We have also tested using a folder path containing '!' mimicking an IP address with no problems detected. *QS-05-06-19-02*
21. It is possible to use the scroll wheel to zoom in and out of the diagram. The convention now seems to be that if the wheel is rotated forward the diagram gets bigger. The Quiksoft programs are modified to conform. *QS-05-06-19-03*
22. Dual monitor systems - When running on the second monitor Quikbeam could display some forms on the primary monitor. Fixed. *QS-05-04-19-01, QS-08-04-19-01*
23. Additional code is added to detect when a form is displayed 'off screen' and move it back to a visible area. Because the Quiksoft programs 'remember' some window and form positions, they could have previously been displayed on a second monitor that has been disconnected. This caused the form to be displayed 'off screen' leading customers (and us!) to believe the program had become unresponsive. On the occasions this was reported it involved the scrolling calculations form in Quikjoint. Fixed. *QS-08-04-19-01*
24. Quikbeam now includes the option to use your company logo in place of your address text on the printed output. See the 'Addresses' option available on the 'File' menu, and via right clicking on the results preview page and selecting 'Results headers' on the popup menu. *QS-27-07-19-01*
25. Quikbeam's on-line help and manual are updated.