# The ICC Duckworth-Lewis Calculator

# **Professional Edition 2008**

(Version 1.1)

Installation and operating instructions

Any queries about operating the program should be sent to <a href="mailto:steven.stern@anu.edu.au">steven.stern@anu.edu.au</a>

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#### **Installation**

The software is contained in a single file, called DL Calculator 2008. It should be copied onto any convenient location of your computer. For instance, if you have a folder called 'CODA', it can be copied into that folder. As with previous DOS-based versions of CODA, you should create a desktop icon from which you can run the program. Right click the name of the file and choose 'send to', then 'desktop (create shortcut)'.

The program is designed to run on PC computers with Windows XP or Vista operating systems.

Running the program requires that Java® (version 6 update 4 or higher) be installed on your computer. Most modern computers have this installed as standard. If you find that the program will not run, then you will need to download Java from the internet. Go to www.java.com and click on the "Do I have Java?" link underneath the 'Free Java Download' button to see what version, if any, is on the computer. If it is not version 6 update 4 or higher, then you should click the 'Free Java Download' button to download and install the latest version.

With some systems, the account used to download and install will need to have appropriate privileges (eg an administrator account) to allow the user to install programs onto the system, but once the Java installation is done any user will be able to use the program without requiring such privileges.

## Starting the program

When you open the program you must select the 'match type' applicable. This is defined by the number of overs per innings and the minimum number of overs which must be available to each side for a valid match. Select 'ODI' if the competition has 50-over innings with a minimum of 20 overs to be available to each. Select Twenty20 for standard Twenty20 conditions (20 overs/innings, min. 5 per side).

If the match is neither of these, select 'other match types'. Select the appropriate conditions from the drop down menu; if none of these is applicable, select 'Custom' and enter the appropriate figures where indicated.

**Example:** the match is from the South African Airways One-Day Challenge which has 45 overs/innings with a minimum of 20 overs/side for a valid match. Select 'other match types'; then click the down arrow in the box which appears and select the option "45 overs/innings; min. 20 overs/side"; click 'OK'.

**Example:** the match is from the University of the West Indies competition which has 30 overs/innings and a minimum of 8 overs available to each side for a valid match. Select 'other match types'; then click the down arrow in the box which appears and select the option 'Custom'. Enter **30** (overs/innings) then **8** (min. overs/side).

You then move to the calculation window. The window heading shows the match type (overs/innings and min. overs/side).

#### **General notes**

- Throughout, the team batting first are called 'Team 1'; the team batting second are 'Team 2'.
- Overs are expressed in 'cricket notation', and this should be used when typing in a number of overs which is not a whole number. For instance, '4.5 overs' means four overs and five balls. Only six-ball overs are recognised.
- You may navigate through the data entry boxes using either the mouse, the keyboard arrow keys or the Tab key (shift + Tab for moving backwards). The Tab key will move the cursor within an individual innings until it reaches the end of the available entry boxes. The arrow keys will move the cursor across innings directly.

## **Target calculation in event of stoppage(s)**

The number of overs/innings as per the match type appears in the top left box. If the start of play is delayed and the match begins with a reduced number of overs/innings, enter this number in the box to replace the default value.

## Team 1's innings

If there are no stoppages in Team 1's innings, enter Team 1's final score where indicated. The Target is displayed and you may then move to Team 2's innings.

If there are stoppages after play has commenced and overs are lost, for each stoppage enter the match details at the stoppage and the number of overs lost per side in that stoppage.

**Example:** a 50 over/innings game is interrupted by rain after 10.3 overs have been bowled with the score at 45/1, and the match is reduced to 48 overs/innings; this is a loss of 2 overs to each side, and you should enter **10.3** (overs bowled), **45** (runs scored), **1** (wicket down), **2** (overs lost per side).

The innings is further interrupted by rain after 16 overs have been bowled with the score at 67/3, and the match is now reduced to 44 overs/innings; this constitutes a further loss of 4 overs to each side, and you should enter the details in the second row of the stoppage information boxes, these being **16** (overs bowled), **67** (runs score), **3** (wickets down), **4** (overs lost per side).

If the innings has to be prematurely terminated, enter the match details at the stoppage (overs bowled, runs scored, wickets down) and then type **a** (for 'abandoned') in the 'overs lost' box. The runs scored will be replicated in the 'Team 1's final score' box, and you will move on to Team 2's innings with the revised Target displayed.

If the innings is not prematurely terminated and it is completed (either all overs bowled or ten wickets lost) do *not* enter the match situation at the end of the innings as this does not constitute a stoppage with a loss of overs. Enter Team 1's final score in the appropriately labeled box, whereupon the revised Target will be displayed and you may then move to Team 2's innings.

# Team 2's innings

The 'overs at start of innings' box for Team 2's innings will automatically update to contain the number of full overs which were available to Team 1.

If the start of Team 2's innings is delayed and it has to be (further) shortened, enter ? in the box labeled 'overs at start of Team 2's innings' and a table will appear as a popup window giving Team 2's Target for all possible number of overs they are allocated (see section headed 'Tables and print-outs' below). When it is known how many overs Team 2 are allocated, enter this number in the box and the revised Target will be displayed.

If play is suspended during Team 2's innings, enter the match details at the stoppage in the boxes as indicated (overs bowled, runs scored, wickets down). Type ? in the 'overs lost' column to give the full schedule of revised Targets for any number of overs lost (see section headed 'Tables and print-outs' below).

When it is known how many overs are lost, enter this number in the 'overs lost' column and the revised Target together with Team 2's revised requirement will be displayed.

If play cannot be restarted and the match has to be prematurely terminated, enter **a** (for an abandonment) as indicated and the match result will be displayed.

If the details entered are such that the match is over (10 wickets down, all available overs bowled or Target achieved), the result of the match will be displayed.

Note that target scores will be calculated and displayed if no entry is made in the 'runs scored' box. This is because the runs scored at a stoppage do not enter into the calculation. However, the runs scored are needed to give statements of the state of the match (see below) and to display the result at the end of the match.

#### Par Score tables

When Team 1's innings has been completed and Team 2's innings is about to start, or after a stoppage in Team 2's innings with a revised Target, the D/L operating protocol requires that Par Score schedules are produced for distribution. These are obtained by clicking on the buttons in the bottom left-hand corner (see section headed 'Tables and print-outs' below).

The Par Score tables disappear whenever new or modified information is added, but you can produce new tables at any time that the appropriate button is active. The Par Score tables list only those values still relevant to the current match.

# State of the match during Team 2's innings

Entering details of Team 2's innings at any stage, whether or not there is a stoppage in play, will produce a display giving the Par Score and how Team 2 are progressing in relation to the Par Score. Deleting the entries in this row, or entering 0 (zero) in the 'overs lost' column, will display Team 2's requirement and allow you to continue the innings.

### **Penalty runs**

The laws of cricket, as revised in 2000, allow for penalty runs to be incurred by either side in either innings. The only situation where the D/L calculation is affected is that in which Team 2 incur penalty runs while batting. In this situation, the penalty runs (5 per incident) are added to Team 1's score but they are not consolidated for D/L purposes. The D/L calculation continues to be made on the basis of Team 1's original score but all Targets and Par Scores are increased by 5 runs per incident.

If Team 2 incur a penalty while batting, the penalty runs should be entered in the box provided (entered values in this box will appear in pink) and the Target and all Par Scores will be immediately updated.

## **Tables and print-outs**

Three tables are available as described earlier. These are:

- Team 2 Targets
- Par Score schedule (over-by-over)
- Par Score schedule (ball-by-ball)

Each of these tables is equipped with both a 'print' button and a 'save' button.

When printed, the tables will be automatically scaled so that a 50-over table will fit within the printer default boundaries. However, depending on the default options of the printer used, these scaled print-outs may be smaller than desired. If so, then you will need to modify the default page size and margins directly from your computer system.

Saved tables are output in HTML format. They can be viewed using any program which can render HTML code (eg Internet Explorer® or Microsoft Word®). When saving an output table, the save dialog will have the default filename included automatically for convenience. However, you will be warned if you are about to overwrite an existing output file, and if you do not wish to overwrite the file select 'No' and you will be returned to the save dialog where you can modify the default filename to one of your own choosing.

Underneath each table is a 'TableID' reference which summarises all the information which has been input at the time the table was produced. The time and date at which the table was produced is also shown.

# **Further operational notes**

- Stoppages must be listed in order of occurrence so that the 'overs bowled' and 'wickets down' columns are in ascending order. If this is not the case, an error message will appear underneath the relevant innings information and Targets and Par Scores will not be displayed.
- If any unacceptable figure is entered (eg too many wickets down, too many overs lost), an error message will be displayed and no Targets or Par Scores will be calculated until a valid entry is made.
- Any data input can be overwritten at any time and all calculations will automatically be updated. To delete data from adjacent boxes simultaneously, use the mouse to highlight the relevant boxes and use either the Delete or Backspace key.
- The 'total overs available' boxes (coloured green) are automatically calculated by the program and are not for user input.
- If more than five stoppages occur in either innings, clicking the 'add further stoppage row' button will add an additional entry row.
- The 'reset entry screen' button will clear all input cells, return the number of stoppage rows to the default number of five and then reset Team 1's 'overs/innings at start of match' and Team 2's 'overs at start of innings' to their default values based on the type of match chosen.
- The 'change match type' button allows you to modify the match type. You will be warned that this change will result in the loss of any information already entered.