SmartMan 6. Admin Module 2. Export Data

v20 and later

Understanding Exported Data

When you have filtered the results in the SmartMan Admin Module, and you are satisfied with what they are displaying, you may wish to *export* those filtered results.

The data in the exported file contains more detailed information. The exported data meets the filtered parameters that you have set in the Admin Module.

In Excel each record will contain a lot of information. Each column will have a heading. Below is a list of these headings and a detailed explanation of how the data in that column is derived.

Key to Activites
  ~ **C** = Compression activities;
  ~ **CPR** = CPR activities
  ~ **V** = Ventilation activities)

The Data is in the Columns

The bold faced words below will be the headings in each column. The column headings move from left to the far column right.

Group One Headings - Identification

The first group of columns contain general identifying information.

Key Code
This is the key code issued by SmartMan. All results are related to a specific key code. This is the key code under which this set of results was performed. Different key codes can be used for different groups so that it is easy to identify them. You can get more key codes from SmartMan.

Student Number
When a student is enrolled, the key code is linked to a unique identified. This unique identifier is the student number.

Surname
This is the last name of the person enrolled and under whose name these results were performed.

Activity
This is the practice or test activity performed on SmartMan. This identifies which activity was performed on SmartMan and thus which results you are looking at. Here is a list of the activities.

Abbreviations for Activities
  ~ **CP/T** = Compression Practice/Test
  ~ **VPCPR/VTCPR** = Ventilations in CPR Practice/Test

- ~ **RBP/T** = Rescue Breathing Practice/Test
- ~ **CPR1RP/T** = CPR 1 Rescuer Practice/Test
- ~ **CPR2RP/T** = 2 Rescuer CPR Practice/Test (lay rescuer BMV mode)
- ~ **CPRAAP/T** = 2 Rescuer Advanced Airway Practice/Test
- ~ **CPRATP/T** = 2 Rescuer Advanced Airway; Timed Practice/Test

Date

This is the date that was recorded when the file was created. It depends on the date setting on the computer when the results were performed. It is created when the practice or the test is performed. No results can be displayed unless this file is created and the date is put onto it.

Group Two Headings - Scores

The second group of headings refer to scores. Below is an explanation of each score and how they are derived.

Score 1 = Compression Depths (C/CPR) or Inspiration Volume (V)
This is a Percentage score.
For compressions or CPR activities, Score 1 represents the number of compressions performed at the correct depth, expressed as a percentage of the total compressions performed in the activity. The current values are 5 - 6 cm

In ventilation activities Score 1 represents the number of ventilations performed at the correct volume of inspiration expressed as a percentage of the total number of ventilations performed in the activity. The current volume is 0.5 to 0.7 L.

Score 2 = Compression Durations (C/CPR) or Inspiration Time (V)
This is a Percentage score.
For compressions or CPR activities, Score 2 represents the number of compressions performed at the correct rate, expressed as a percentage of the total number of compressions performed in the activity. The current rate is 100 - 120 compressions per minute.

For ventilation activities, Score 2 represents the number of ventilations performed at the correct duration of inspiration, expressed as a percentage of the total number of ventilations performed in the activity. The current duration of inspiration is 1 s.

Score 3 = Compressions Release (C/CPR) or Interval Score (V)
This is a Percentage score.
For compressions or CPR activities, Score 3 represents the number of compressions fully released expressed as a percentage of the total number of compressions performed in the activity.
For ventilation activities, Score 3 represents the number of intervals between ventilations (that correspond to the correct rate of ventilations), expressed as a percentage of the total number of ventilations performed in the activity. For rescue breathing at 10 - 12 breaths per minute, intervals should be 5 - 6 seconds between the start of successive ventilations.

Score 4 = Average Score 1;2;3
This is derived by taking the total scores in score 1 + score 2 + score 3 and finding the average.

Score 5 = Compliant Compressions [depth; rate; release] (C/CPR) or Compliant ventilations [volume; duration] (V) [weighted against ideal totals]
This is a Percentage score.
For compressions or CPR activities, Score 5 represents the number of individual compressions performed at the correct rate, correct depth and fully released, expressed as a percentage of the total number of compressions performed in the activity.

For ventilation activities, Score 5 represents the number of individual ventilations performed at the correct duration and the correct volume of inspiration, expressed as a percentage of the total number of ventilations performed in the activity. The current duration of inspiration is 1 s.

Score 6 = Cycle Time Score
This is a score a percentage.
For compressions or CPR activities, Score 6 represents the difference in the time the learner took to complete the activity compared with the ideal time to complete the activity. The ideal time is based on the median of the compression rate range (100 to 120 compressions per minute) and includes or excludes ventilation cycles (as appropriate).
For ventilation activities (Rescue Breathing), Score 6 represents the difference in the time the learner took to complete the activity compared with the ideal time to complete the activity.

For ventilation activities (CPR Ventilations), Cycle Time is not evaluated an a nominal 100% is allocated to each score

Score 7 = Final Score (weighted Score 4;5;6)
This score is the SmartMan Percentage which is shown on screen when an activity is completed. This is a weighted score to reflect that some value can be done for a victim even though a skill is performed slightly outside of the target performance range on various skill parameters. For example, if all compressions were very close to deep enough but slightly below what is specified in the guidelines, and all were performed at the correct rate and with full release, then a compliance score would be zero.

The SmartMan score provides the user with a consistent reasonable indication of the value of their performance to a potential victim. In an educational sense it also provides a student with a way to compare one performance with another to gauge whether they have improved or not and whether they can maintain their skill level.

Here are the current weightings to derive that percentage score.

Compression Activities
Score 7 = Score 4 (30%) + Score 5 (50%) + Score 6 (20%)
Score 7 is factored by the variance in number of compressions performed from the ideal number.

CPR Activities
Score 7 =
Compression Components = Score 4 (30%) + Score 5 (30%) + Score 6 (10%) +
Ventilation Components = Score 4 (15%) + Score 5 (15%)
Score 7 is factored by the variance in number of compressions performed from the ideal number.

Ventilation Activities
Score 7 = Score 4 (30%) + Score 5 (40%) + Score 6 (15%) + Score 8 (15%)

Score 8 = Total Time/Vents in activity

In Compression activities, score8 is the total time (s) to complete the whole activity compared to the ideal time.

In Rescue Breathing Activities, score 8 is a percentage of the number of ventilations actually performed compared to the ideal (10 to 12) ventilations. For example many people perform 25 to 35 rescue breaths per minute. This would show up in this score.

In the practice of Ventilations for CPR activity, it is expecting a minimum of 5 pairs of ventilations, above that scores 100%

Score 9 = Hands Off Time (Total) (C/CPR) or 0 (V)
This is the Total Time for when your hands are off the chest. This includes time between compressions and it includes the time off the chest to perform ventilations during a CPR activity.

This can be important if a person is taking a very long time to achieve a ventilation. The target time for CPR is to give 2 vents in 4 seconds. If it takes 5 or 6 seconds to get a ventilation, it will show up here.

Score 10 = Hands Off Time (exclude time for ventilations) (C/CPR) or 0 (V)

This is the time the Hands are off of the chest but does not include the time for ventilations. This number allows you to pick up poor performances in how the chest compressions are done. For example with a person jabbing at the chest, this number is too high. A chest compression is supposed to be a smooth continuous performance. Ventilation times are not recorded in this number.

Score 11 = Duty Cycle (C/CPR) or 0 (V)
Duty Cycle appears in the latest guidelines. Research has shown that not all compressions are equal in creating forward flow of blood through the brain. The research states that you are creating much better pressure to move the blood forward as you lower the duty cycle score.

In terms of how this relates to the actual performance, chest compression should be a smooth continuous down and release. The research suggests that a score below 50% is helpful. Excellent scores are 35% and lower

This is the amount of time you spent compressing (pushing down plus releasing) during a cycle.
> *"Duty Cycle is important as "Coronary blood flow is determined partly by the duty cycle." Guidelines 2010.*

Score 12 = Compressions performed (C/CPR) or Ventilations performed (V)
This is a dump of the cycle array.
For compressions and CPR activities, Score 12 represents the number of individual compressions performed in each cycle of the activity. Each cycle is deliminated by a "|".

For ventilations activities, Score 12 represents the number

Score 13 = Inspiration Volume (CPR) or 0 (C/V)
This score is the percentage of ventilations that were performed at the correct volume range of 0.5L to 0.7L. In <u>ventilation only activities</u> this would be Score1, but in CPR activities Score1 is the percent of compressions performed at the correct depth, hence this extra column is required when reporting for ventilations only activities.

DD = Depth and Duration
This relates only to chest compressions. D=Depth of the compression performed and the second D=Duration of the compression performed (this is rate at which it is performed).

This score is the raw number of compressions that were performed in compliance with the current guidelines for D and D. That is for every compression where both Depth and Duration is performed within the guidelines, it is counted one.

This number is a tally of the number of compressions performed correctly for both D and D. Thus this number tells us the number of compressions that were compliant for both Depth and Duration.

DDR = Depth, Duration and Rate
This relates only to chest compressions. D=Depth of the compression performed and the second D=Duration of the compression performed (this is rate at which it is performed) and , R=Release of the chest for the compression.

This score is the raw number of compressions that were performed in compliance with the current guidelines for D and D and R. That is, for every compression where Depth, Duration and Rate are performed within the guidelines, it is counted one.

This number is a tally of the number of compressions performed correctly for D, D and R. Thus this number tells us the number of compressions that were fully compliant.

Thus if you take the DDR number and divide it into the expected number of compressions for that activity, you will get a score for the percentage score of how many compression were performed correctly, with no weighting according to the guidelines. This gives you the compliance percentage.

Group Three Headings – Totals and Other

The third group of headings will provide totals, what level the activity was performed at, and it will contain a file identifier for the profession if that has been created in the Admin Module.

TotalC = Total compressions (C/CPR) or 0 (V)

This is a count. It is the total number of compressions performed. It is common to have people not perform exactly 30 in each cycle. This gets picked up here.

TotatV = Total ventilations (CPR/V) or 0 (C)
This is a count. It is the total number of ventilations performed. It is common for people to perform numbers different from those specified in the guidelines for various activities

Level
S = Standard. This means that the person performing the activity and/or a supervisor had access to viewing the colored bars as the skills were performed.

A = Advanced. This means that the colored bars were not displayed when the activity was performed. You can be certain that these results were done as a blind activity.

File = This is the file name of the activity results.
This is the original file name that was created when the activity was performed. It contained the original raw data points.

Professional Group = Assign Group in Admin Module
In the Admin Module you are able to assign specific results to a professional group such as paramedic, nurse, etc. This will appear in this column. It is a convenient way to sort groups to examine specific performance parameters for that group.