

Academic Aid Scholastic Suite 6 Handbook

for Homebrew capable PlayStation Portable Systems

Disclaimer: This document should be fairly accurate and provide correct information for *6.xx Series* of this software but however some errors/typos may have crept in.

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A. Preface:

Release Notes and Build Statistics:

Version: **6.0**

Build Revision: **769** (How's this obtained? Read below)

SHA1: -Copy paste from Stdout-

MD5: -Copy paste from Stdout-

How is Build Revision obtained?

By using a custom version of PSPLink, which keeps track of the checksum changes (by using *sceKernelUtils* library's Digest functions) each time the application is run INSIDE PSPLink and auto-increments the Revision number in a text file (BuildInfo.txt) inside the directory from where it is launched. *It should be kept in mind that, the checksum changes, thus incrementing revision number, whenever the source has been modified or an image or any binary that's embedded in the EBOOT.PBP has changed.*

Introduction:

Few months ago, I was in search of an educational application that would work on a PSP system, considering the infinite possibilities and usefulness; After failing to find even a single one, I thought I would do one that every student would consider A “Must-have”. The resulting product is this!, it's my first attempt to make Homebrew aimed at students who are in high school and colleges. It's suitable for Algebra I, Algebra II , (Pre)Calculus, Trigonometry, Physics I and Physics AP level students or any math with inclusion of a multi-purpose calculator.

Main attention has been paid to GUI intuitiveness and ease of use; it also incorporates smooth scrolling technology. Starting with 6.0, Motion Kit Support has been added.

The main mission of this application is to allow students to get straight to the answer with OUT the need of note taking sheets or making any additional calculations (it's handled by this software). The usage is simple: the user simple inputs the variables for most formulas /equations and it does *pages of tiresome* work automatically. As a personal user, I guarantee 99%+ accuracy.

Installation:

- 1) Copy the folder “AcademicAid6” in the the extracted archive to ms0:\PSP\GAME or ms0:\PSP\GAME390 or ms0:\PSP\GAME3xx (where last digits stand for Kernel version). (ms0: the root of the Memory Stick that appears during USB Connection Mode)
- 2) Launch from XMB inside GAME menu.

Note: The Kernel should be set to use 3.xx when using GAME folder.

B. Current Implementations

Calculus:

This covers topics ranging from Algebra I, Algebra II and Calculus/Pre-Calculus

1) Quadratic solution and statistics of Ax^2+Bx+c equation

- > Equation Solutions
- > Factored form
- > Discriminant
- > The intercepts
- > Derivate
- > Graph
- > Area under the graph
- > Equations minimum

2) Statistics of two points

- > The distance
- > The midpoint
- > The Slope
- > The Cartesian Graph
- > You can choose to override scale(Not-Recommended) or Let it choose the best fit from 1 Cm to 1 / 2 / 5 / 10 units; which ever fits the best.

3) Find Square Root, Cube Root or Nth root of an integer.

4) Arithmetic Sequences

- > The term at a particular position in the sequence
- > The actual series is shown 5 at a time

- > The sum of terms from 1st term in the series to the the chosen number in series.
- > Press L & R to change the series rapidly; Left & Right changes it slowly.

5) Geometric Sequences

- > Same as above.

6)Logarithm solver

7) Find Determinant of 2x2 matrix

8) Find Determinant of 3x3 matrix

Physics:

1) Newtons law of universal gravity.

2) Average Acceleration from velocity and time

3) Final Dist from Initial Distance, time , velocity/speed and (Optional) acceleration.

4) Final Velocity from Initial Velocity/speed, Distance & acceleration

5) Distance of projectile thrown straight up/down.

- > Ability to override the Acceleration due to gravity.

- > Lets you choose the time

6) Maximum Height/X-Range(the horizontal distance) of a Projectile [w/ Angle]

- > Shows The maximum height that can be attained

- > Shows the maximum range the object can reach.

- > The X-velocity

- > The Y-Velocity [before reaching peak height]

- > The final Y-Velocity after reaching the peak height.

- > The Final vector of the projectile

- > The time to reach the peak. [total time = peak time * 2]

- > All values are shown in degrees.

Trigonometry:

- 1) Lateral and total surface area and the volume of a cylinder
- 2) Lateral and total surface area and the volume of a Sphere
 - > Lateral and total surface area
 - > The Volume
- 3) Lateral and total surface area and the volume of a Hemi-sphere
 - > Lateral and total surface area
 - > The Volume
- 4) Lateral and total surface area and the volume of a cube/cuboid
- 4) Lateral and total surface area and the volume of a cylinder
- 5) Area of a triangle from 3 sides[i.e the herons formula]
- 6) Area of an equilateral triangle
- 7) Radians <-> Degrees conversion

The inbuilt-Calculator:

This makes use of RapidInPSP input system to create a Fully functional four function calculator with Square and Cube Root finding capabilities; the result is a compact and easy to use calculator thats, infact, VERY PORTABLE!

C. Credits and acknowledgements

Press **Triangle** at the main menu/Subject selection screen.

D. Support and feedback

I am always looking forward for suggestions and feedback from students who have used this software.

Any suggestions for improvement welcome, you can always contact the author at either NeoFlash forums, QJ or MaxConsole under the nickname “Mr305” (sans quotes).

You may also contact via the email: mistr305@gmail.com