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KETCindy – collaboration of Cinderella and KETpic. Reports on CADGME 2014 conference working group.

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Summary: Dynamic Geometry Software (DGS) is a powerful tool which enables students to move geometric objects interactively. Through experimental simulations with DGS, mathematical facts and background mechanisms are accessible to students. However, especially when those facts and mechanisms are complicated, it is not so easy for some students to record and memorize them as established knowledge. For that purpose, reproducing some part of the output generated by DGS on printed teaching materials can be useful. Since the graphical output of DGS on a PC screen is not necessarily appropriate for printed materials, it is desirable that the interactive graphics capabilities of DGS and the qualified documentation capabilities of mathematical editing software be unified in a flexible manner. Recently we have developed a software package “KETCindy” to format the graphical output of Cinderella into graphical codes of TeX. Cinderella is one of the most popular DGS and TeX is one of the most popular tools for editing teaching materials or textbooks in collegiate mathematics education. Using KETCindy, we can build an environment in which collegiate students can clearly grasp mathematical concepts by interactively operating Cinderella on a PC screen, and can acquire established knowledge by repeatedly observing the graphical images reproduced on the high-quality mathematical documents edited by TeX.

Classification: U70 N80 U50

Keywords: computer software; use of technology; teaching methods; dynamic geometry software

<http://www.researchinformation.co.uk/time/contents/timecont.php>