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## **THE USAGE OF POWER POINT PROGRAMME TO PRESENT TASKS IN TEACHING DESCRIPTIVE GEOMETRY.**

The aim of the paper is to present didactic experience resulting from introducing new concept of designing classes and repetitions. At the Faculty of Civil Engineering of the Silesian University of Technology designing classes within the subject of Descriptive Geometry and Engineering Graphics are realized together as Geometry and Engineering Graphics.

The lectures have been elaborated in a form of electronic presentations Power Point. They do not include oral text but in a 'step by step' way show the creation of a given design and are with a lecturer's commentary. Due to electronic version of tasks (solutions in Power Point ), it is possible to analyze carefully the topic with many repetitions during classes. Extra curriculum lectures have been elaborated in a way that students step by step fulfill the design, with a possibility to get back to earlier solution. The layout of the multimedia presentation of repetitions which is a derivative of aims and tasks of education has been adapted to students' perception abilities.

Our designing and teaching experience inspired us to make an attempt to create a kind of catalogue of examples which can serve as aiding material for lectures on descriptive geometry. The step by step method had positive influence on teaching process of descriptive geometry and resulted in eager and individual work on solving geometrical problems by first year students. Use Power Point programme to present exercises in teaching descriptive geometry are characterized by easy perception for the recipient and possibility of creations of different versions.

Common elements – exemplary exercises solved by 'step by step' method.

	<p><b>1.</b> Otwór wycięto w dwóch trójkątach, szukam, zatem dwóch różnych otworów należących do każdego z nich.</p>		<p><b>5.</b> Szukam rzutu pionowego prostej <b>I2</b>, na której leżą punkty <b>I</b> i <b>II</b>. Mam już rzut pionowy czworokąta <b>I II III V</b>.</p>
	<p><b>2.</b> Oznaczam rzuty poziome poszczególnych wierzchołków szukanych wielokątów. Czworokąt o wierzchołkach <b>I II III V</b> należy do trójkąta <b>ABC</b>, trójkąt <b>III IV V</b> należy do trójkąta <b>ACD</b>.</p>		<p><b>6.</b> Szukam rzutu pionowego prostej <b>3III</b>, na której leży punkt <b>IV</b>. Mam już rzut pionowy trójkąta <b>III,IV,V</b>.</p>
	<p><b>3.</b> W rzucie poziomym prowadzę prostą przez punkty <b>I</b> i <b>II</b>, przecinającą boki trójkąta <b>ABC</b> w punktach <b>1</b> i <b>2</b>. Przez punkty <b>III</b> i <b>IV</b> prowadzę prostą przecinającą trójkąt <b>ACD</b> w punktach <b>3</b> i <b>III</b>.</p>		<p><b>7.</b> Ustalam widoczność trójkątów wraz z wyciętym otworem.</p>
	<p><b>4.</b> Wierzchołki <b>III</b> i <b>V</b> leżą na odcinku <b>AC</b>, (wspólny bok obu trójkątów). Wyznaczam rzuty pionowe tych punktów.</p>		