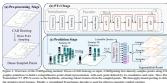


# Horizontal Layout Examples



## 1. Horizontal spread - First 4 pages (small)



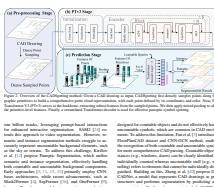
optimizing spatial configurations, and increasing the conversion rate. As a CAD design contains a great deal of information, it is often necessary to use a large amount of memory to store all of this information, which can significantly increase the size of the memory required for the project. In addition, the need for a large amount of memory can also lead to a significant increase in the cost of the project.

Traditional software approach used recognition as a primary method for symbol spotting. This approach is based on the idea that each symbol has a unique set of features that can be used to identify it. This approach is effective for simple symbols, but it is not suitable for complex symbols or symbols with similar features. Early solutions for symbol spotting used hand-coded rules to identify specific symbols. These rules were often very difficult to maintain and update, especially as the number of symbols increased. In addition, this approach was not able to handle symbols with complex shapes or symbols that had multiple parts.

The proposed model is trained using a deep learning framework, which allows it to learn the features of different symbols directly from the data. This approach is more efficient and accurate than traditional methods, as it can handle complex symbols and symbols with similar features. In addition, it is easier to maintain and update the model, as it can be retrained with new data as needed. The proposed model is also able to handle symbols with multiple parts, which is a common requirement in many engineering drawings.

Symbol spotting is a critical step in the process of reading engineering drawings. It is used to extract information from the drawing, such as dimensions, material specifications, and other important details. The proposed model is able to handle a wide range of CAD drawings, making it a valuable tool for engineers and technicians.

## 2. Horizontal spread - Pages 2-4 (medium, tight)



Symbol spotting done on only a few small parts types. Instead, it directly samples pixels along the boundary of the part, which is much more efficient. Each pixel is then fed into a neural network to predict the symbol type. This approach is called "point-based" symbol spotting, and it is much faster than the traditional "image-based" symbol spotting. The proposed model is able to correctly identify the symbols in the drawing, even if they are partially obscured or have complex shapes. This makes it a valuable tool for engineers and technicians who work with CAD drawings on a daily basis.

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## 3. Horizontal spread - Custom selection



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