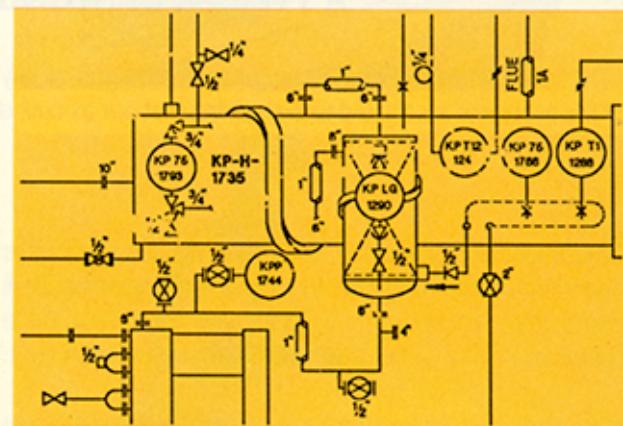




## THE PROBLEM:

Shell UK Exploration and Production set themselves an ambitious goal. They required a cost-effective means of updating their engineering drawing library which contained many old and deteriorating originals.

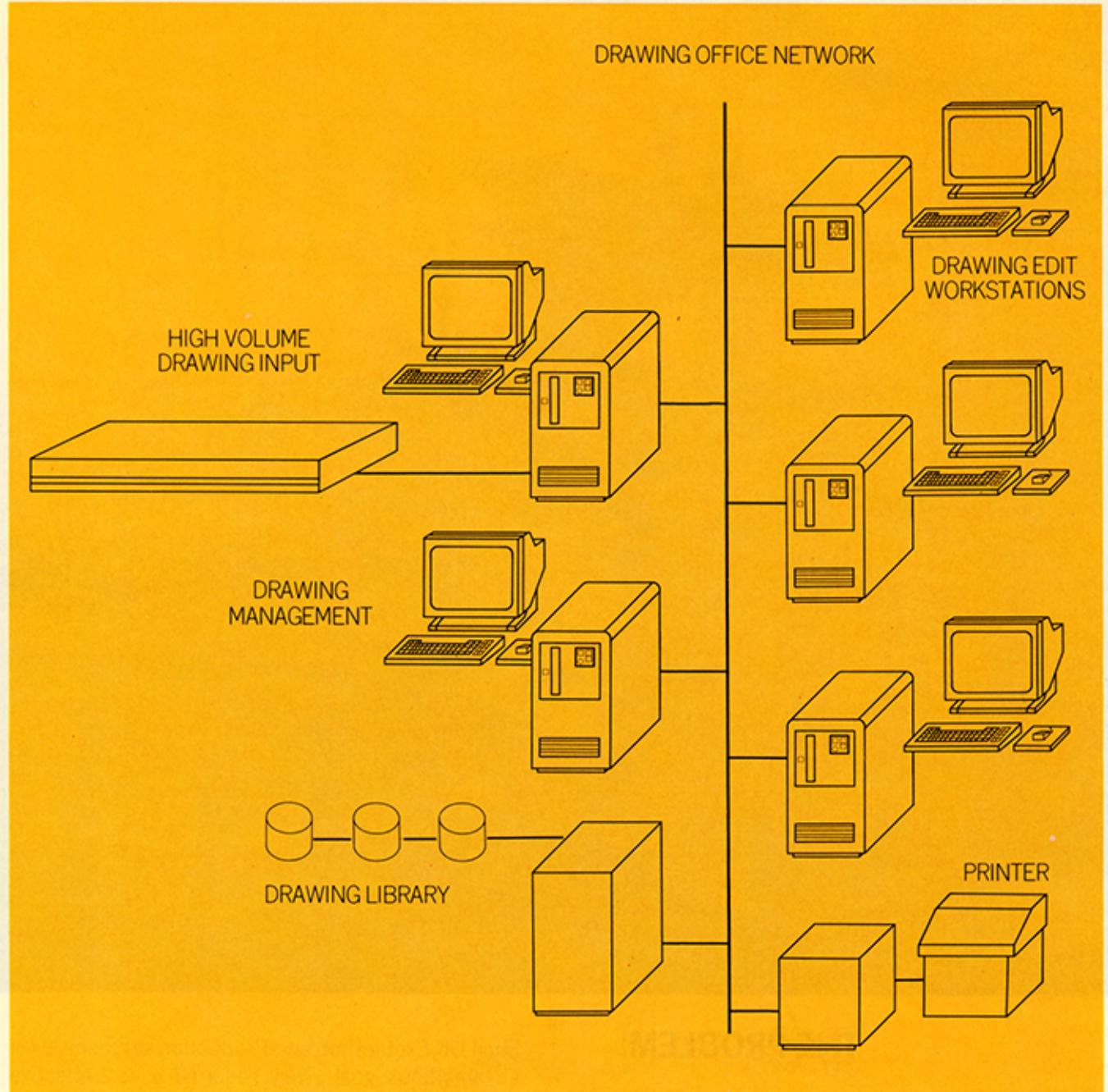


## THE SOLUTION:



**ADVENT**

Systems  
Limited



### A TYPICAL DRAWING OFFICE CONFIGURATION

"The flexibility of the system to capture, enhance and modify raster images in a stand-alone configuration enables us to solve many of the problems associated with ensuring that our as-built drawings are accurate and up to date."

... Shell Expro

Shell Expro are one of the leading oil and gas companies operating in the North Sea. From the very beginning Shell Expro, in a joint venture with Esso, have led the way in the exploitation of the oil fields beneath this hostile environment.

Platforms are complex structures containing large networks of piping, communications circuits and electrical cables. Drawings must be kept up to date not only for routine maintenance but also for the event of an emergency. In both cases it is essential that action is taken based upon up to date

information. Without this information maintenance costs would rise and, in certain circumstances, safety could be jeopardised. Other equipment may include heavy plant machinery such as the Rolls Royce RB 211 jet engine, which is used to pump the gas to the mainland. Much of this complexity is unique to a particular platform. It is this uniqueness that is recorded on 'AS BUILT' drawings which are subject to a high level of modification. During its typical 25 years of life the maintenance expenditure of an off-shore structure can be as much as the initial capital outlay.



Keeping the engineering drawing library fully up to date is traditionally a lengthy, labour intensive and therefore expensive task.

Another problem associated with this task is that drawings deteriorate with age and handling. As a consequence, repeated modification makes the drawings brittle and difficult to store.

The use of traditional Computer Aided Drafting techniques can overcome many of these problems since drawings are held on a computer, rather than as physical originals, and can be modified on the screen of a terminal. This does assume that the drawings were originally prepared using CAD. AS-BUILT drawings produced manually cannot benefit from this approach unless they are completely redrawn using CAD — a laborious and time-consuming process.

The Advent system solves these problems by the rapid integration of existing drawings into a comprehensive CAD system. This integration is performed by scanning the drawing photo-electronically and converting the resultant image into a form which may be used in a CAD system. The Advent development means that drawings can be computerised quickly, reliably and cost-effectively.

Shell Expro demand high standards for a production system, and these are fully met by the Advent System.

### The company behind the system.

Shell Expro needed a system that met its specifications and a supplier with which it could establish a long and productive relationship. In Advent, Shell Expro found a team of people uniquely qualified in the area of advanced scanning technology — a growing organisation eager to understand the business needs of its clients, and to develop turnkey solutions to satisfy those needs.

"We have invested in a system that has the potential to yield impressive paybacks," said a Shell Expro spokesman. "Savings of as much as 5 to 1 in the overall time of maintaining valuable original engineering drawings are possible."

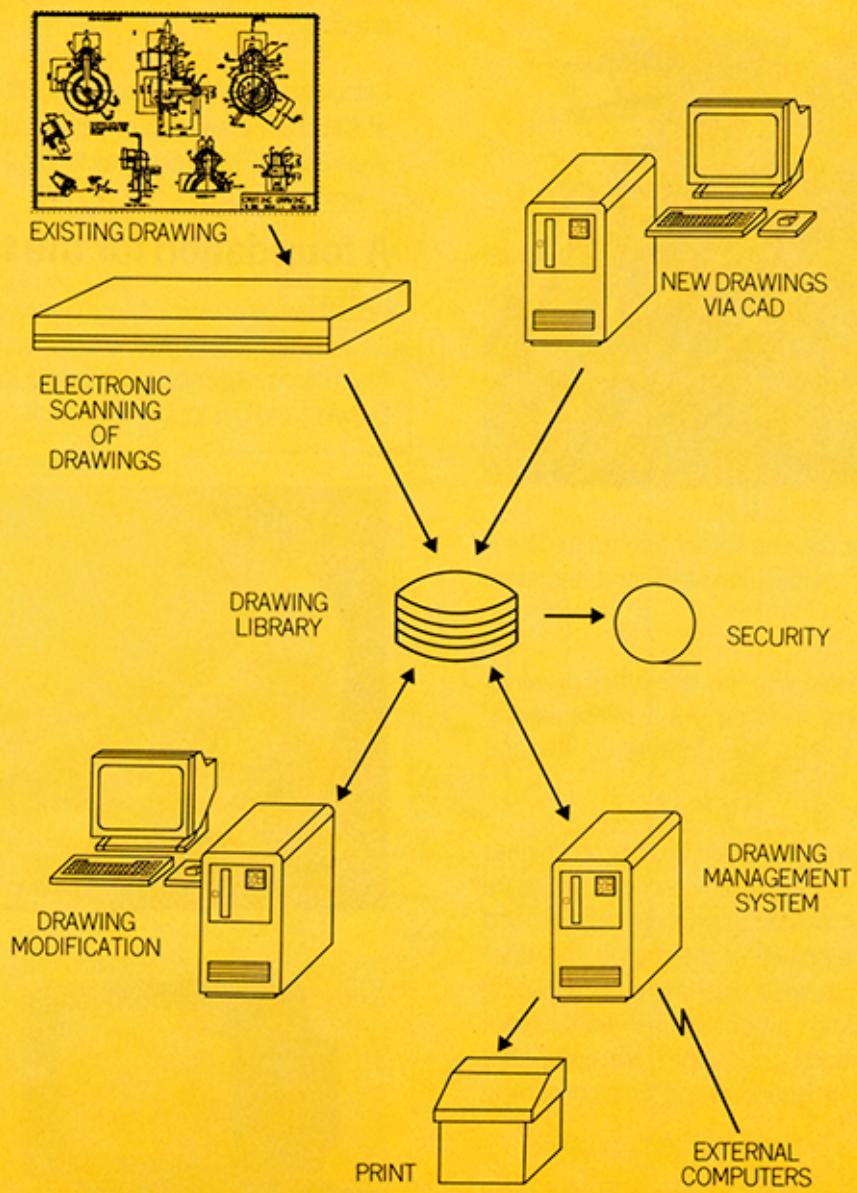
Calculating the average cost of traditional drawing methods at £150 per drawing, a company can recoup its investment in an Advent System with as few as 1000 drawings.

### A foundation for the future.

With these impressive return on investment figures, and the total of original engineering drawings in the UK numbered in the millions, Advent sees a bright future for its Electronic Drawing and Design Office systems.

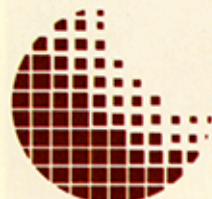


## THE ADVENT SOLUTION



Note: This is one in a series of articles describing how industry is using Advent systems to improve engineering productivity.

If you would like more information, or want to learn how Advent systems can be used for your particular application, contact Advent today.



**ADVENT**

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