

## Unit 302

### **PRODUCTIVITY AND QUALITY ASSURANCE IN DTP AND PRE-PRESS**

Quality products will not be acceptable to the customer if deadlines are not met. Also quality products will not be profitable to the customer if:

- Excessive cost of production
- Product not economically produced
- Too many resources used to make product, e.g. labour

#### **Key Issues Affecting Profitability**

##### **Equipment**

- Correctly maintained
- Calibrated for quality or use with other equipment
- Kept clean, keyboards, monitors, printers, scanners etc.
- Lubricate moving parts
- Regularly serviced by a competent member of staff or engineer

##### **Labour**

- Skilled worker
- Properly trained

##### **Materials**

- Sufficient quantity
- Suitable quality
- Correct specification

#### **Improving Productivity**

Productivity is improved by producing more work with the same amount of staff. An improvement in productivity enables a company to successfully compete for more business.

## **Quality Assurance**

The purpose of quality control is to identify defective products and ensure that they do not reach the customer. Quality assurance schemes are concerned with continuous improvement and can be achieved by:

- Maintaining product within specification
- Identify ways in which failure can occur
- Taking steps to improve the system
- Reduce or eliminate repetition of the same failures
- Formation of quality circles

Below are examples of equipment which can be used to manage quality of the printed product:

### **Colour Reference Book/Swatch**

- Check or define CMYK
- Check or define spot colours
- To indicate to the customer how a screen colour will print

### **Colour Management Software**

- Used to compensate for differences in colour interpretation of hardware devices, e.g. scanners, monitors, printers etc.

### **Scanner Targets**

- Used to allow a scanner to be calibrated or to create a colour profile for a scanner by scanning a target device and measuring the data values.

## **Quality Assurance Systems**

Below are a list of procedures which can be found in a quality assurance system:

- Control of suppliers
- Procedure for receiving goods
- Detailed operating procedure
- A system for tracing production and controlling documentation
- Arrangements for dealing with non-conforming products
- Schemes for internally auditing the quality systems and procedures
- A system for calibration and maintenance of equipment

### **Pre-Press: Processes and Activities**

The following are quality checks that should be applied to a typeset document:

- Proof read
- Spell check
- Check font/type size consistency (house style)

### **Identifying Faults in Customer Supplied Files at the Pre-Press Stage**

Below are a list of reasons for identifying faults at the pre-press stage:

- Avoids disputes with customer as to responsibility for defects in job
- Avoids wasted materials by having to repeat print run
- Prevents additional production costs being incurred
- Reduce risk of delays in later stages of production
- Prevents production problems with other jobs because of equipment being 'tied-up'
- Helps maintain a confident, professional relationship with the customer

### **Producing Consistent and Accurate Files in Pre-Press**

Below are a list of requirements for producing consistent files in pre-press:

- Hardware must be maintained and calibrated in accordance with manufacturer's instructions
- All colour management software should be correctly installed and configured
- The correct use of control and measuring equipment

### **Stages of Production in the Pre-Press Department**

A customer supplies the pre-press department with the following:

- Colour transparencies
- Copy which has already been typed
- An RGB JPEG file on CD

The job is to be made up into an A4 colour leaflet for print. Identify 6 essential activities involved in taking the job to the digital proof stage.

1	_____
2	_____
3	_____
4	_____
5	_____
6	_____

## **Administrative Procedures in Pre-Press Department**

Approval is necessary to undertake any pre-press work required which is not anticipated or identified when the job was first received. The following people/tasks would need to be consulted:

- Approval from the line manager
- Approval from the customer
- Amended/signed works instruction ticket/job bag
- Amended/signed overlay sheet on artwork

After completion of pre-press processes, the following tasks should be completed:

- The final proof must be identified
- All processes should be recorded on daily docket/time-sheet
- Job bag/works instruction ticket is signed off
- The final proof is approved by the customer

## **JOB BAG OR WORKS INSTRUCTION TICKET**

There are 2 main items on the job bag or works instruction ticket:

### **Job Number**

A unique number for the job is used for relating cost, material, invoices, time-sheet etc.

### **Job Specification**

This gives details when the job is required by the customer. The specification, forms the basis of instructions for the various departments in the printing company, detailing size, number of colours, number of pages, method of binding, materials for the job etc.

## **Production Records**

Upon completion of all pre-press processes the following records need completing:

- Time-sheet/daily docket: Logs all time spent on the job
- Job bag/works instruction ticket:  
Logs all stages of production in the pre-press area
- Stock control/materials release sheets:  
Indicates materials used in pre-press area and also forward plan to check that the quantity of paper is available to print the job
- Authorisation for job to proceed to the next stage:  
Foreman or shift supervisor in pre-press

## **PROOFING**

Colour reproduction of different types of proof is determined by many factors:

- The substrate upon which the proof is printed
- Pigments contained in the dyes, inks or toners used to produce the proof
- Resolution of the image and proofing device
- The colour calibration of the device used to make the proof
- Any use of colour management software and/or device profiles
- Printing machine used and the printing conditions for wet proofs

### **Viewing Colours on a Monitor**

Colours displayed on a screen are produced using the 'additive theory of light' whereas all printed work uses the 'subtractive theory of colour' principle.

### **Hexachrome Colour**

Cyan, Magenta, Yellow and Black + Orange and Green

### **Institutions Established to Set Standards for the Printing and Graphic Communications Industry**

British Standards Institute (BSI)

International Standards Organisations (ISO)

Deutsch Industrie Norm (DIN)

## **ARCHIVING OF PRE-PRESS FILES**

The essential elements of a pre-press archiving system are:

- Indexing
- Identification and location of files
- Protects archived materials from physical damage or loss
- Identifies final approved artwork/film/files

## **Ownership of Pre-Press Products**

The legal ownership of pre-press products is determined by:

- Terms of the contract made with the customer
- The written terms and conditions of sale or purchase