



UNITED NATIONS OFFICE AT GENEVA

UNITED NATIONS

# Printing Section

**Publishing Service**

*DIVISION OF CONFERENCE MANAGEMENT*

This booklet gives an overview of the activities of the Printing Section, which is part of the Publishing Service of the United Nations Office at Geneva (UNOG).

The Printing Section is responsible for the cost-effective, timely and quality printing of conference documentation and publications for UNCTAD, UNECE, UNHCR, UNIDIR and other clients.

The Section uses state-of-the-art graphic design, printing and binding equipment and boasts a full-service desktop publishing unit which produces sophisticated designs and layouts for publications. The latest computer-to-plate technology is then used to produce filmless and chemical-free offset printing plates.

Printing and binding are done using two distinct production lines – the digital printing line, where all conference documents and some publications are printed, and the offset printing and binding line for the production of sophisticated multi-colour publications that require specialized binding.

Clients submit jobs to the Documents Management Section (DMS) of the Central Planning and Coordinating Service (CPCS). From there, after clearance, the document or publication is transmitted to the production office of the Printing Section. If the job is for an extra-budgetary entity, the Section provides an estimate of the production costs.

More than 40 staff members work in the Section, including highly skilled layout/design artists, professionally trained and qualified offset printers and bookbinders, and staff trained to operate high-speed digital printers.

# Introduction

*DIVISION OF CONFERENCE MANAGEMENT*

# How did we get here?

The Section has achieved the production of high-quality work by:

- Recruiting qualified staff;
- Keeping up with trends in the publishing/printing industry to procure state-of-the-art production equipment that appropriately matches the latest technology with our clients' requirements;
- Regular training enabling staff to update their existing skills and learn new ones.

By the end of 2002, the Section had transformed its pre-press area from a simple typesetting operation into a fully fledged desktop publishing and design unit – a significant step towards modernization. Acquisition of a four-colour printing press in 2003 changed the Section from a simple black-and-white printing house into one capable of producing sophisticated multi-colour publications.

# Evolution of production processes and services offered

Initially, the Section's client base was small, and services were limited to the printing of black-and-white conference documents on numerous photocopiers or on small offset printing machines which consumed great quantities of throw-away paper plates that required chemical processing. The print finishing process was cumbersome and error-prone, due to the laborious and tedious manual collating and stitching process along the production line. It was not unusual to recruit as many as 10 temporary staff during peak production periods.

Production of publications was limited to simple design and layout, basic typesetting on standard-size paper and black-and-white printing.

## The revolution in documents production technology

The first transition in the Section's production technology occurred in 2002 with the installation of first-generation high-speed Xerox DocuTech digital printers capable of making 180 A4 page impressions per minute, along with the facility to stitch documents in one operation. The five new digital printers effectively replaced more than 20 pieces of equipment and produced the same annual quantity of parliamentary documents. This upgrade was the first introduction of printing on demand in the United Nations system. By 2008, second-generation high-speed digital printers capable of making 250 A4 impressions per minute were in place.

Most documents are now printed within two days of receipt by the Section, while urgent in-session documents such as those of the Human Rights Council are produced within one hour of receipt. The introduction of digital printing machines led to the development of a PDF-based digital workflow – the most efficient method of reproducing documents for conferences.



## The revolution in the technology used to produce publications

In line with trends in the publishing industry, the Section has gone from having basic typesetting, film and platemaking units to modern pre-press (comprising desktop publishing, layout, imposition and platemaking), offset printing and binding units. Graphic designers proficient in modern desktop publishing software have replaced traditional typesetters. This trend, along with the installation of a four-colour printing press, has greatly improved the appearance of publications, and clients have responded accordingly by demanding more colour publications. The enhanced attractiveness and quality of printing outputs have in turn led to more client requests for our services. Many publications which were previously outsourced are now produced internally.

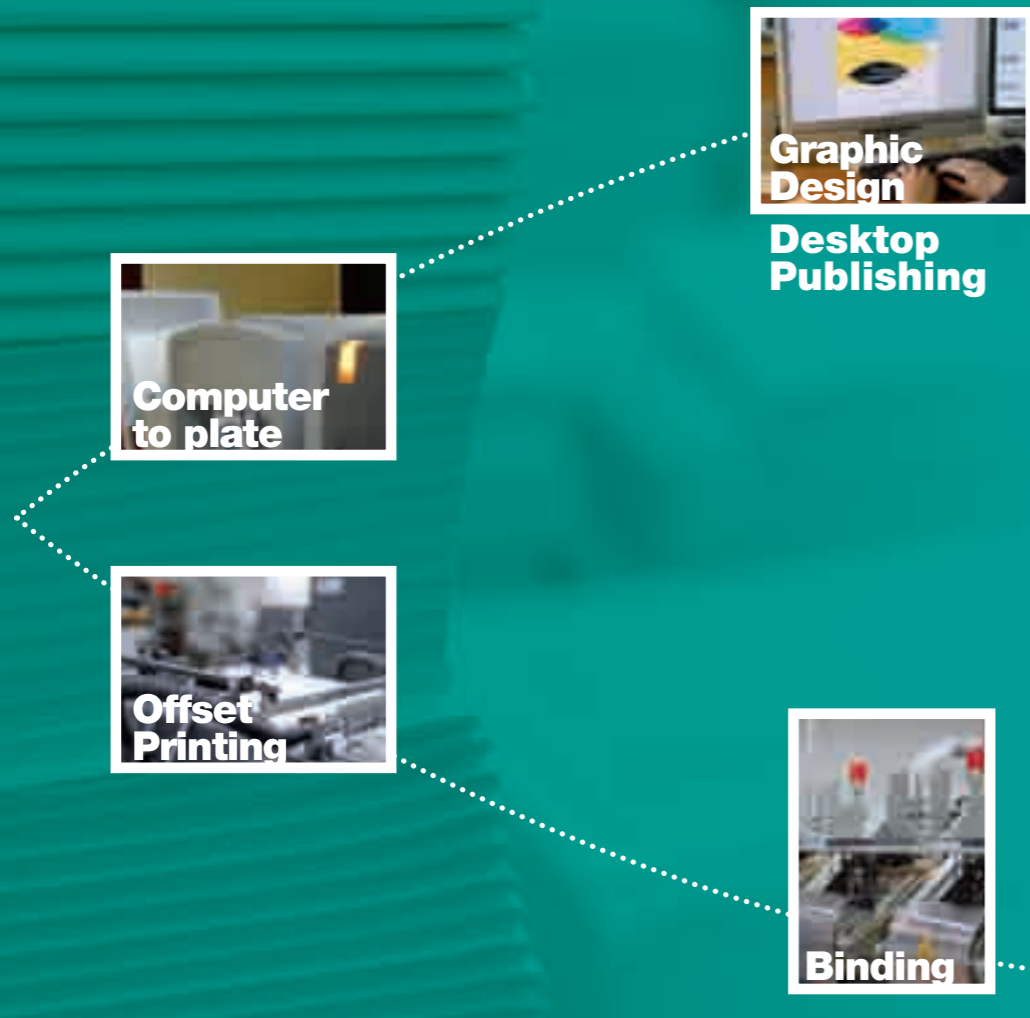
Desktop publishing was not the only area of advancement. With the installation in 2001 of computerized imposition, film and plate production, the Section made its first foray into the domain of computer-to plate (CTP) production, whereby films and polyester plates were processed directly from computer files. By 2008 this had evolved even further with the installation of full CTP for automated, rapid and accurate production of aluminium printing plates.

For finishing and binding of publications, the Section uses heavy-duty cutting and folding machines, saddle-stitching and perfect binding machines as well as various ancillary equipment such as drilling and perforating machines.

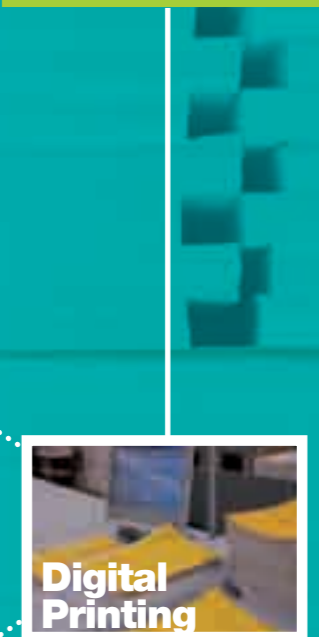


# Production workflow

## Publications



## Documents

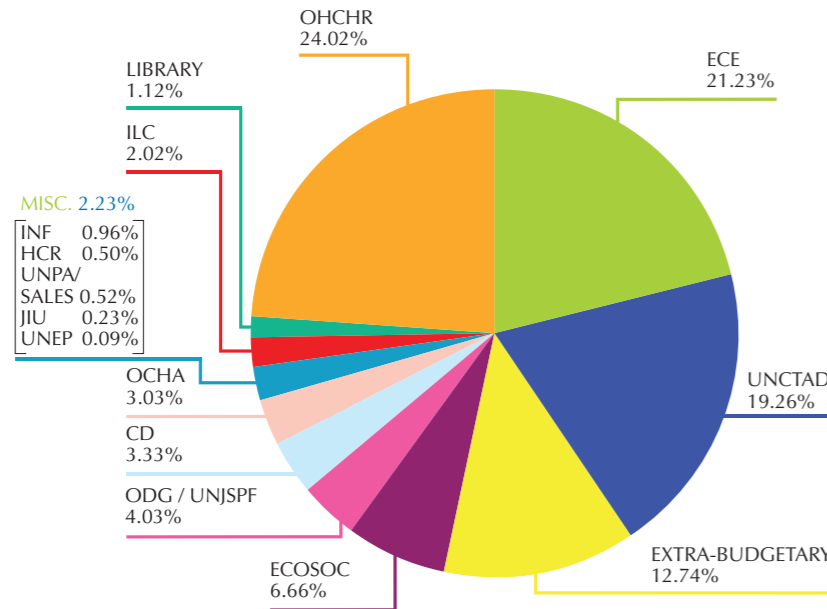


# Main clients

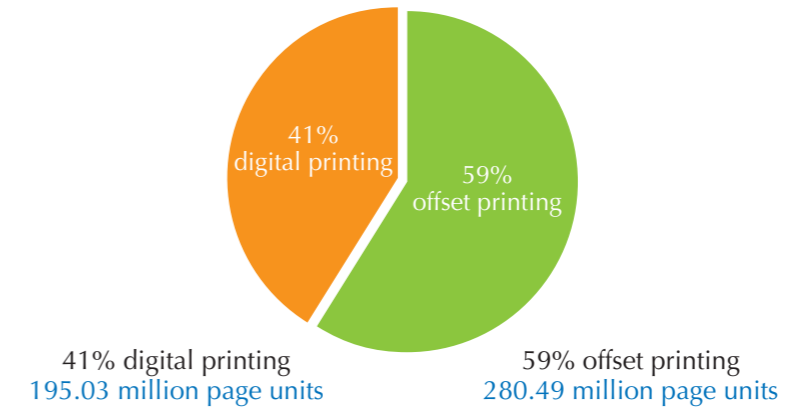
The Section's main clients for the production of parliamentary documentation and publications include ECOSOC, OHCHR, UNCTAD, UNECE, UNHCR and OCHA.

Printing Section production statistics for the 2008–2009 biennium

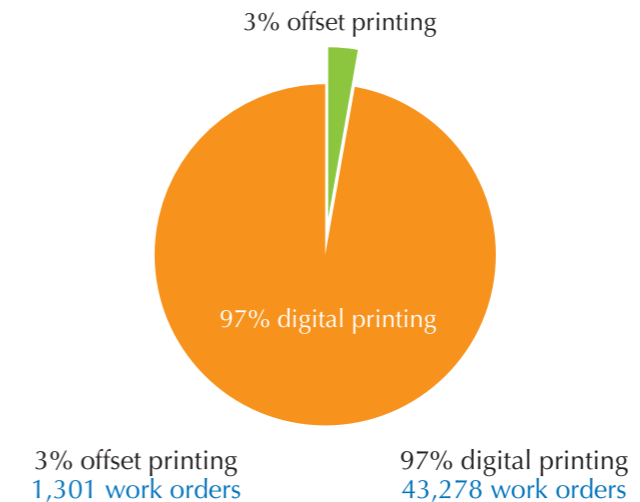
**475.53 million A4 page units (by client)**



**475.53 million A4 page units (by process)**



**44,579 work orders (by process)**



# Sub-units and outputs

## Production Control and Estimating Office

The Production Control and Estimating Office verifies that originals submitted by DMS through the Documents Records, Information and Tracking System (DRITS) conform to the technical and quality requirements for the relevant printing process. The unit then registers the work order, initiates production of the document or publication and monitors the production process in line with pre-established deadlines.

This office is also responsible for:

- Maintaining production statistics for the Section;
- Calculating cost estimates and preparing invoices for extra-budgetary work;
- Maintaining stocks of all materials used in the Section;
- Client liaison and job tracking;
- Preparation of technical work instructions.

In 2009 this office processed more than 23,000 individual work orders.

## Graphic Design and Desktop Publishing sub-units

The Graphic Design and Desktop Publishing sub-units carry out all design and layout functions. The creative phase – where graphic artists execute designs and layout – is followed by formatting and proofing, and finally the plate-making stage. There is extensive use of layout/design software packages such as InDesign, Illustrator and Photoshop.

## Equipment used:

- 9 Dell Precision PCs
- 1 Epson Stylus Pro 4800 printer
- 1 Lanovia Quattro scanner
- 1 Power Mac G5
- 1 HP DesignJet 1050 plotter  
(large-format inkjet colour printer)



Epson Stylus Pro 4800 printer



Lanovia Quattro scanner



Outputs:  
Formatted text, final  
layouts and designs,  
colour proofs, business  
cards, CD-ROMs.



## Platemaking sub-unit

On receipt of print-ready files, the sub-unit performs colour separation, ensures that pages of the publication will be correctly imposed, prepares proofs and subsequently produces image-carrying printing plates.

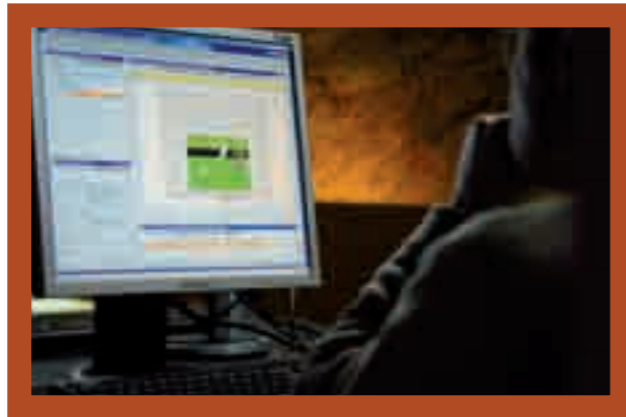
## Equipment used:

- 1 HP DesignJet 1050 plotter (large-format inkjet colour printer)
- 2 Heidelberg Signastations
- 1 Heidelberg Suprasetter S74 SCL thermal platesetter



Heidelberg Suprasetter S74 SCL thermal platesetter

**Outputs:**  
Colour proofs, direct filmless and chemical-free offset plates for Roland and Heidelberg printing presses.



## Digital Printing sub-unit

This sub-unit prints all conference documents. Jobs in digital (PDF) format and hard-copy original documents scanned to digital format are queued for printing. Document files are subsequently transmitted to high-speed electronic printers and printed at 250 impressions per minute.

## Equipment used:

- 2 Océ DS60 black-and-white scanners
- 5 Océ VP6250 digital printers with online booklet maker, tape binding and high-capacity stackers
- 1 Ricoh C720 digital colour printer

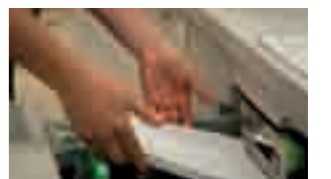


Océ VP6250 digital printers

**Outputs:**  
Black-and-white digital printing and simultaneous binding of all parliamentary documentation in A4/A3 format from digital files. Side-stitched or saddle-stitched format on 75 g/m<sup>2</sup> paper. Due to the generic nature of parliamentary documents, the sub-unit is currently configured for an output capacity of 100 million page impressions per year. In 2009 more than 400,000 A4 original pages of parliamentary documentation were submitted to the sub-unit for printing, and more than 101 million page impressions were made (output) by the fleet of five digital printers.



Ricoh C720 digital colour printer





## Offset Printing sub-unit

On receipt of the image-carrying plates, the sub-unit prints all publications using the offset printing method.

## Equipment used:

- 1 Roland 300 B2 format 4-colour perfecting printing press
- 3 Heidelberg MOZP A2 format 2-colour perfecting printing presses
- 1 Heidelberg GTO A3 format single-colour printing press



Heidelberg MOZP



Roland 300 B2



Heidelberg MOZP

## Outputs:

Offset printed sheets of publications, brochures, books, pamphlets, leaflets, posters, etc. in one or multiple colours on coated and uncoated substrates varying in size and weight from flimsy paper to heavy cardboard. In 2009 more than 56,000 A4 original pages of publications were submitted for printing, and more than 119 million page impressions were made (output) by the fleet of five offset presses.



## Binding/Finishing sub-unit

On completion of offset printing, the sub-unit handles all print finishing and ancillary functions such as cutting/trimming, folding, collating, saddle stitching, perfect binding, etc.

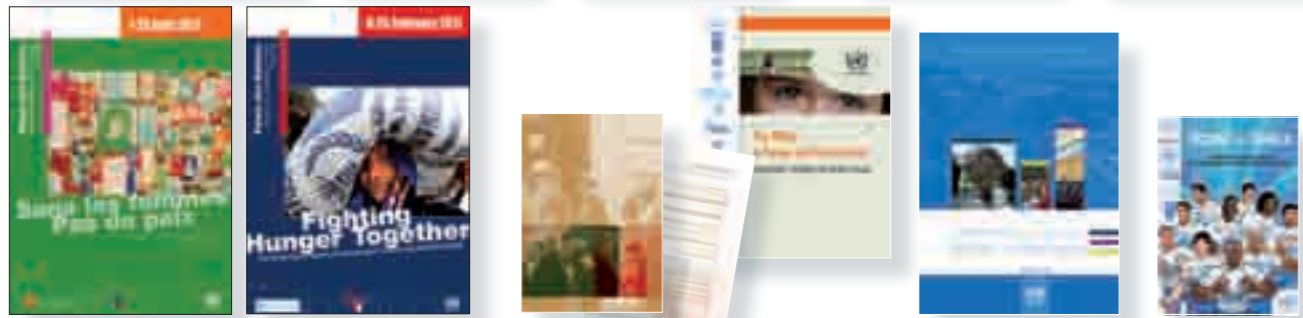
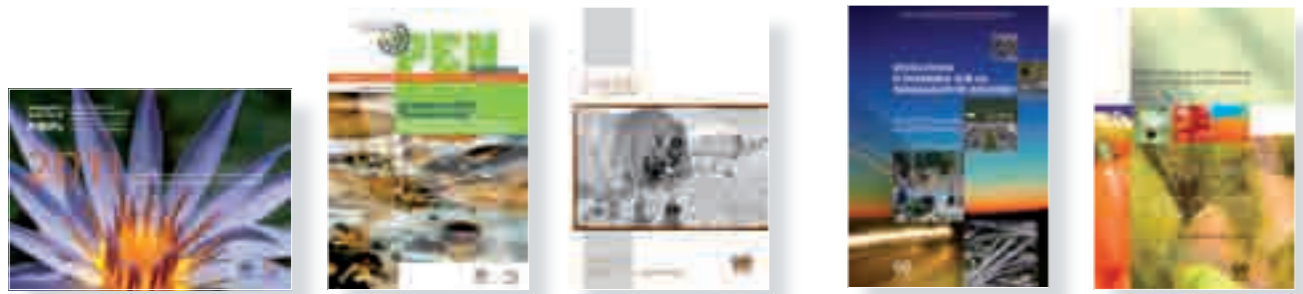
## Equipment used:

- 1 Polar cutting machine with 115 cm blade
- 3 Stahl folding machines
- 1 Muller Martini binding machine
- 2 assembly/saddle-stitch machines (Muller Martini and AM Graphics)
- 1 drilling/perforating machine
- 1 Heidelberg EuroBinder

## Outputs:

Perfect-bound, saddle-stitched, trimmed and finished books, magazines, posters, leaflets, brochures, business cards, etc. according to the technical finishing requirements of the jobs coming off the printing presses.





# Examples of finished products



# Environmental considerations

The Printing Section takes into consideration the environmental impact of its operations. Materials purchased and production processes comply with modern environmental norms.

## Sustainable Publishing

Pursuant to the system-wide efforts to implement the concept of sustainable publishing, the Publishing Service of the Division of Conference Management (DCM) has implemented an Environmental Management System (EMS) for its printing and distribution operations and subsequently obtained ISO 14001:2004 Certification, dated 5 November 2010.

The scope of the EMS includes the environmental impact of the printing and distribution activities including material flow, waste material management, secure handling of chemicals, energy consumption, machinery noise levels, etc.

The implementation of sustainable publishing practices also ensures that staff members maintain environmental awareness, and in this regard an environmental policy detailing the shared responsibilities of staff, as well as the commitment to continuous improvement, is also included in the EMS.

## Paper

- Meeting documents are printed on uncoated 75g/m<sup>2</sup> recycled paper produced from 100% recovered paper containing a minimum of 50% post-consumer recycled fibres, in line with UNEP's Sustainable Procurement Guidelines.

- Publications are printed on various types of recycled paper and boards produced from 100% recovered paper containing a minimum of 50% post-consumer recycled fibres, in line with UNEP's Sustainable Procurement Guidelines.

## Equipment and production processes

- Our recently installed Océ VP6250 digital printing machines, which account for 40% of overall production, consume 45% less energy and produce 90% less ozone than equivalent machines in their class.
- The use of outdated films and chemicals has been eliminated from the plate-making process.
- Our computer-to-plate (CTP) processor uses no chemicals in its production of printing plates.

## Additional information

- Waste paper management  
In December 2010 the Printing Section commissioned a waste paper extraction system. Waste paper from the production processes such as cutting and binding are collected, exhausted and transported via a closed piping system to an external compressing and baling system. From here the paper is taken to be recycled



## Contact

As this booklet indicates, the United Nations family in Geneva has at its disposal a modern, efficient and environmentally clean production facility. Staff of the Printing Section are available to provide technical assistance regarding all aspects of documents and publications.

### Printing Section

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# ISO 14001

