



## What is a digitally printed map?

In this presentation a digitally printed map is printed with:

- digital printing press (not so common)
- (almost all) laser printer
- inkjet printer (some)
- dyé sublimation printer
- thermal wax/solid inkjet printers
- colour copier

- Other maps are printed with:
   spot colour offset printing machine
- frequency modulated 4 colour offset

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### The Questionnaire

The questionnaire was sent to the 33 map correspondents and other recipients in 33 countries.

Only 10 answers were received, but those were very good.

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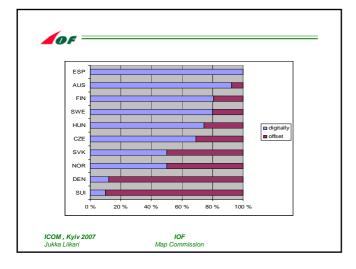
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## The production of the maps

How many maps a year are produced in your country and how many of them are digitally printed?

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# The maps in local events

Is it allowed to use digitally printed maps in local events?

AUS, CZE, DEN, ESP, FIN, HUN, SUI, SVK, SWE YES

YES, IF NOR: the map must be readable

NO:

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#### The maps in national events

Is it allowed to use digitally printed maps in national events that are official events in national federation's calendar?

YES ESP FIN HUN

YES, BUT AUS: not in events where IOF rules are followed

CZE: after approval by national map committee DEN: only in 1:10 000

SWE: not in elite classes on 1:15 000 map

NO:

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SVK



NO

## The maps in national championships

Is it allowed to use digitally printed maps in national championships?

YES ESP HUN SUI SVK

YES, BUT AUS: not in events where IOF rules are followed

CZE: after approval by national map committee DEN: only in relay

NOR **SWE** 

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### Is the quality good enough?

If you think about the best digitally printed maps in your country, is the quality of the maps good enough for national events?

YES: **FSP** 

FIN: almost every map is now digitally printed

HUN: (due to financial reasons)

YES/NO AUS: yes for maps 1:10000, not 1:15000

DEN: depends very much on the type of the terrain NOR: perhaps for 1:10000 in suitable terrain types SWE: yes for maps 1:10000, not 1:15000

NO:

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## Is the quality good enough?

If you think about the best digitally printed maps in your country, is the quality of the maps good enough for international top events if IOF would allow it?

YES:

YES, BUT AUS: only in the scale 1:10000

CZE: you must know how to reach the high quality ESP: not always
SVK: only in the scale 1:10000 and bigger scales

DEN, FIN, HUN, NOR, SUI, SWE NO:

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## The advantages

What are the main advantages of using the digitally printed maps?

- price (6)
- printing courses together with maps (6)
- easy and fast updating (6)
- fast production (3)
- print on demand (3)
- colour flexibility in case of advertisements (2)

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## The disadvantages

What are the main disadvantages of using the digitally printed maps?

- quality (poor legibility, fuzzy and unclear image etc.) (6)
- costs (2)
- underestimating the complexity of printing (under stress) (2)
- no maps without courses left after competition
- requires special knowledge
- the size of maps usually limited to A4
- water resistance not good
- the lack of specialised printers
- long duration of printing with transparent colours

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### Some conclusions

It is usually - but not always - fast, easy and cheap to use a digital printer while organising a competition.

The quality is not perfect, but good enough for all local events and for the majority of national events (especially 1:10000 maps).

There is no international pressure from active O-countries to allow digitally printed maps in IOF events.

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### The future?

One comment in the answers:

"I have a strong feeling, that laser printed map will dominate the world of o-maps pretty soon, unfortunately with less quality! The participants accept it without any criticism!"

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#### Thanks to

Noel Schoknecht Zbynek Krejcik Flemming Norgaard Petteri Palmi László Zentai Håvard Tveite Radoslav Jonas Mario Vidal Triquell Christer Carlsson Thomas Gloor Australia
Czech Republic
Denmark
Finland
Hungary
Norway
Slovakia
Spain
Sweden
Switzerland

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