



Digital Historical Maps

Report from WP5

Copyright issues, charging and billing procedures

Final version 5

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Peter Korsgaard

National Survey and Cadastre of Denmark

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Enclosures

Appendix 1: Order Form

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1 Preconditions and definitions

1.1 Scope

The purpose of the work package is to describe the levels of access to the information and the rights correspondent to the levels. The pricing, charging and billing procedures shall be examined.

The proposal for the three quality levels is based upon all levels providing access to a web based interface including viewer and search engine. The proposal for the layers is

- A. Internet distribution. Free access. It could require registration and a password.
- B. Internet distribution. Yearly subscription.
- C. Internet requisition. Delivery through the net or by CD and mail. Fee.

1.2 Description of the user needs from Work package 1

The user study supports functionality with three quality levels.

1. A small compressed file: Overview on the whole map.
2. Larger compressed file: Zoom to level where details are visible.
3. Full information on CD, mainly for information development. The full information also can be reproduced on paper.

This can perhaps be developed into three access levels that might be made to correspond with the proposed WP5 quality levels:

- Overview on whole map and zoom to detail level in screen-sized tiles. This will satisfy a large number of non-professional users as well as professionals wanting to gain a quick and good impression of a limited area. No charge.
- Downloading the larger compressed file, enabling certain geometric corrections etc. User rights and charging shall be defined.
- Full information on CD-ROM, mainly for information development. This will satisfy professional users or ambitious amateurs. The full information can also be reproduced on paper. Ordered and charged.

1.3 Description of styles of selling information on the Internet

1.3.1 EDI-style

EDI-style is a closed circle. It is made under strictly regulated forms, which includes forms of contracts and procedures of contracting. There is a registration, and the transaction takes place between partners known and trusted. The security is a part of the network design.

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1.3.2 Web-style

This is an open circle, on the global scale. As the number of partners is unlimited and the partners may be known or unknown, security and authentication are needed.

1.4 Summation of deliverer and user interests on the Internet

The three levels:

1. An open circle. A developed catalogue-service. Possibilities of searching for information (maps) in a register or geographic overview. Possibility of browsing among all of the maps to get an impression of the contents and the quality of the material by overall views of maps and possibility to zoom in on any part of any map. No fees. The possibility of having a guest-book and a mailbox for e-mail shall be considered.
2. A closed circle. The possibility of downloading compressed files and ordering original files on CD-ROM. Billing at delivery.
3. Delivery on CD-ROM. This is described earlier.

2 Copyright

2.1 The Bern Convention and the National Copyright Laws

The national copyright laws in Denmark, Germany and Sweden are all based on the Bern Convention. The Convention can be described as a model law for copyright. The countries, which are members of the Bern Union, have an obligation to create a national copyright law within the frames laid down in the Convention. The Convention contains mechanisms and rules which the respective country and member are bound to follow. Therefore, the national copyright laws within the Bern Union have a common structure and terminology.

In the Bern Convention, it is stipulated that the law of the country where a question appears (The Principle of National Treatment) shall govern matters concerning copyright. If for example a work made in Denmark is abused in Germany, the German Copyright Act shall govern the process against the abuser. The Convention gives a minimum level of protection to every right holder in the Bern Union.

2.2 Work in the public sector

The central 'object' for the copyright protection is 'the work'. This term is common in the three copyright laws (Denmark: "værk", Germany "geschützte Werke", and Sweden "verk"). A 'work' is a result of an act of creation. In that criterion is hidden a certain demand on the performance made by the author. In some countries the uniqueness is a proof that it is a work in the sense of the copyright law. In Germany, the law describes the work as a "Geistige Schöpfung", in Denmark as a literary or artistic work

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The interpretation of the term work is in the first place made in case law. There are differences between case law in the three countries. A very rough comparison might show that the demands upon a 'work' are higher in Germany than they are in Denmark and Sweden.

In certain fields, the national legislator is, in accordance of the Bern Convention, free to prescribe that certain types of work shall not be protected by copyright. One such area is works produced by or on behalf of the public sector.

Maps and other works containing geographical data are often produced by or on behalf of the public sector. The national legislators in the three countries have all, in line with the Bern Convention stated that maps shall, if they met to the basic requirements in the national law, be regarded as 'works'. If the map is produced in a public authority, there are different national regimes. In Danish law the protection of maps made by public authorities is no different from the protection of other maps.

2.3 Time restricted protection

The copyright protection is limited in time. The main rule in the EC-union says that the work shall be protected for seventy years.

2.3.1 Denmark

In Denmark like in the other EC membership countries the copyright lasts 70 years from the author's year of death. If the work is published without the name of the author, the copyright lasts 70 years from the end of the year in which the work was published. In addition to these standard rules there are special rules for a certain kind of Danish maps. According to Order of 1816 nautical charts made by "Søkortarkivet" are permanently copyright protected; and according to Order of 1831 topographical maps made by "Generalkvartermesterstaben" also are permanently copyright protected. The orders are still valid according to the Danish copyright law (Ophavsretslovens §92). Both Søkortarkivet and Generalkvartermesterstaben are now parts of Denmark's National Survey and Cadastre (Kort & Matrikelstyrelsen). The maps included in this project are only protected by the standard rules of 70 years of copyright.

2.3.2 Germany

In the German law official maps are protected in the same way as others (e.g. private) maps. The copyright law also protects maps by public institutions if they are official, as for example land survey maps. Other (e.g. thematic) maps (and "works") made by public institutions may be excluded from copyright according to §5 of the copyright law (§5 "Amtliche Werke"), if they are made and published particularly to inform the public, and if there is a specific official interest to inform the public. The decision, if §5 applies or not, is made by case law.

2.3.3 Sweden

In Sweden maps produced by public authorities are protected if they meet the basic requirements for a work. A work by a sole author is protected during a period of 70 years counted from the year after his death. Works, which have been published or made public without the name of the author(s), are protected for seventy years counted from the year after it was made public. For a work, which is

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made public in separate parts (example: the topographic map over Sweden) the time of shall be set from the day the last part of the work is made public, which still has not occurred for the topographic map.

The Swedish economic map which production started 1942 and which still is under production is thus protected by copyright.

This rule must, at least in Sweden, be conferred to the constitutional framework, in the first place the Freedom of the Press Act, which regulate what is 'a public document'. Every map in an archive of a Swedish authority is a 'public document'. One document, which has been put in such an archive, has also, in the sense of the Swedish Copyright Act, been published or made public. If the period for protection has ended, the work is, in this respect, in the public domain.

2.4 Databases protection

The EC Parliament has decided a directive. Directive on the legal protection of databases (Directive 96/9EC Directive of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases. The Directive is implemented in Danish, German and Swedish law.

The database protection consists of two parts. One is based on traditional Copyright. If data in a database is structured in such a way that the traditional requirements in the copyright law are fulfilled, the database shall have the same protection as other works. The database is a 'work'. The other part is the 'sui generis protection'. This protection is not within the copyright system but is a protection on it's own. Technically the mechanisms are implemented in the national copyright laws (Denmark §71, Germany §§ 55 and 87 and Sweden §49).

The sui generis protection is connected with the economic efforts made by the producer. The investments must be substantial.

The producer has, with some exemptions, the exclusive right to exploit - 'extraction' and 're-utilisation' of the whole or a substantial part of - the database under a period of fifteen years from the year following the date of completion.

The sui generis protection is only valid within the EC. The protection has therefore limited importance in activities on the Internet.

2.5 Conclusion

There is no copyright on the maps as such except the Swedish economic map from 1942 onwards.

The databases are, (with reference to the acts of creations involved in the process), protected by respective national copyright law.

The databases are a result of substantial investments and are therefore protected by the sui generis protection in respective national legislation.

It is a legal question whether a single file is protected through the database protection law. Thus the conditions shall be ruled by agreement based on national legislation and case law in each country.

3 Prices

3.1 Fixing of prices – principles

3.1.1 Denmark

The build-up of systems and databases in National Survey & Cadastre are principally financed by government grants as it is viewed as a governmental duty. The maintaining of systems is partly financed by grants, partly by fares whereas the process of extraction and distribution to customers is financed by the fares. The pricing of goods and services is thus based upon estimates of the amount of work done during the process of delivery and the estimate of "overhead" partly to the upkeep of systems, partly to the administrative process of billing, etc. The pricing is also done with an eye to other similar products from National Survey and Cadastre, thus a print from a file will tend to have the same price as a photocopy.

As regards historical maps, the pricing will also take into consideration that our reading-room will be able to look at the maps digitally thus saving time. The PR from the net will be considered an asset, as will the diminishing wear and tear. However, this will mostly be of internal consideration as the initial costs of scanning will be much greater than the immediate advantages.

A preliminary study has suggested 3 models:

- a. unit pricing - the normal way
- b. a fixed fare + use. One-time buyers of web-based products for professionals
- c. subscription + use + number of users - for professionals

3.1.2 Germany

The principles are similar to those in Denmark. Government grants and the grants from the DHM project finance building up of the database for digital historical maps in the University of Greifswald. The upkeep of systems is partly financed by grants, partly by fares; extraction and distribution are financed by the fares. The pricing of products and services will be based, as in Denmark, upon the amount of work during the process of delivery and the overhead needed to maintain the system and needed for the process of billing. The pricing will also be done following other similar products. It is expected that the price for one digital map with full resolution will not exceed 25 ECU.

3.1.3 Sweden

The price shall be estimated with references to the costs of collection and registration of data, plus a contribution for the updating of the register. The basic principle for deciding a fee is that the price (fee) shall cover the cost of the "service" or goods.

Financing of production, maintenance and access to information on landscape and property in Sweden is based on a combination of grants and fares.

The model is an expression of a governmental commitment as a guarantor for the systems, at the same time as the users, by demands and financing, get influence on the development of the systems.

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The model implies:

- a. Build-up of systems and databases is financed by grants
- b. Grants and fares in combination finance management. Management activities include updating, development and adaptation of information and systems to meet the demands from users and connected systems in the world around.
- c. Extraction and distribution of information, e.g. access to information, is financed by fares.

For the historic material this implies:

- a. The build-up of databases, including development of the first production system, extraction from archives, indexing, data-capture, occurring techniques for compression, conversion and storage, is to be financed by grants.
- b. Grants and fares in combination finance management, including further development of the production system, administration and running of systems. The share of grants is decided in dialogue with the government.
- c. Extraction and distribution of information from the databases are financed by fares. For example, if the information is distributed via a specific web-solution (Webserver, the adaptation of information, etc.), this is to be financed by fares.

3.2 The user study

The user study showed that although there was a great satisfaction of having access to information, especially search engines, on level A, there was no inclination paying for this. A rather large number indicated that they were willing to pay for level B and C. Some users preferred to use the download method because it would save time, others the CD delivery.

3.3 Conclusion

There shall be no fees on level A (as defined in 1.4). This also gives the user the right free to distribute the downloaded files from level A. The size of the price on level B and C will be calculated later, as it depends upon - among other things - the upkeep of the server, the billing procedures and costs, etc. The main principle will be that the costs will be related to the costs of maintaining the system, not the creation of it. In Denmark prices of already existing, similar, products will have to be kept in mind.

4 Billing

In order to place the Internet solution into the right context, this report includes practices today, also regarding analogue delivery. It will not be possible to draw quite parallel conclusions as the customer today will almost always be known whereas the Internet market is much more anonymous.

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4.1 Denmark

In National Survey & Cadastre today there is no fixed policy, but mostly the customers pay after delivery. One-time shoppers pay immediately when it concerns printed maps in the shop, but one-time shoppers ordering measurements of their property, sometimes after seeing it at the public studying room, pay after the delivery.

The cadastral maps are in a web-version ("web-matriklen"). Also the cadastral numeral information ("Matrikelregisteret") can be found through the net. Both are for a limited number of users well known. Passwords are used, and the billing is made through counting the number of logins. Every month a bill is made.

The model for a future web billing solution in National Survey & Cadastre divides the users into consumers and professionals. The groups shall have access to downloading and ordering. The consumers will not be subscribers and shall pay by a credit card, CyberCash or - if delivery by mail - by post order (post giro) and by cash on delivery. The professional shall pay by SCR, PBS (banks' payment systems), credit card or CyberCash.

When ordering the consumer shall inform of:

Name of firm/private consumer - Name - Street - Street No. - Floor - Postal Code - Town - Country - Telephone - Fax - E-mail (entered on) - E-mail (logged) - National Survey & Cadastre consumer no. - Way of payment

When connecting to a service agreement following shall be registered:

Name of firm/private consumer - Name - Street - No. in street - Floor - Postal Code - Town - Country - Telephone - Fax - E-mail (entered on) - E-mail (logged) - Credit card no. - National Survey & Cadastre consumer no. - Login name (at service contracts) - Password (at service contracts) - Type of agreement

4.2 Germany

In the University of Greifswald today there is no technical net solution and no fixed policy for future billing. But preliminary experiences from pilot projects in other university libraries do lead to two alternative solutions:

- a. Customers, who want to use the database of historic maps more frequently (who want to buy a larger number of digital maps with full resolution during a period of time), are specified in a closed circle. Each of them establishes a personal "account" paying a certain amount of money in advance; this enables them to download the data using ID and password, or to order a CD-ROM. This means that a contract is made before getting access to the download of full resolution data or getting the data on CD-ROM. When the status of the personal account tends to zero or below zero by ongoing usage, customers will get a request for additional payment (replenishing the personal account).
- b. Customers, who want to use the database occasionally (e.g. who want to buy a single digital map), shall pay the price in advance and will get the data subsequently on CD-ROM or by

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download admittance. Possibly it will be necessary - e.g. for administrative organizations as customers - to do the invoicing after delivery.

4.3 Sweden

In National Land Survey today orders are billed at delivery on non-Internet solutions. Regarding net solutions:

Dedicated computer solution for real property data or Internet solutions (webbkarta on www.lm.se). Customers are specified in a closed circle, with ID, password. An agreement (contract) is made before you get the ID. Invoicing is made on basis of usage.

From December 1999 it is also possible to order printed maps via the Internet and pay by card in an open circle.

At the moment, there is no decided policy for future billing on the Internet in the National Land Survey. Policy and technical solution are under preparation.

5 Contracting on the Internet

Making a contract within an EDI-system will in general terms meet the formal requirements for contracting laid down in traditional contract law.

As there would be an interest in the mass market for buying the maps direct on the Internet, there is the possibility of making contracts direct on or via the Internet. This type of contract is called "on line contracts". The legal presumptions for on-line contracting, however, are not clear. One difficulty is identifying the parties.

The Commission has drafted a proposal for digital signatures and on electronic commerce in general. In Germany there is the law about a digital signature and digital contracts: "Gesetz zur Regelung der Rahmenbedingungen für Informations- und Kommunikationsdienste vom 13.6.1997", article 3 of this law: "Gesetz zur digitalen Signatur". In Denmark a similar law had been prepared but has not been passed.

Other types of problems arise from the question of identifying the other party concerning "authority" and "capacity", that is the ability of the partner to make himself liable for the acts and for the latter, the power to bind someone else to the agreement.

5.1 Conclusion

National Survey & Cadastre and National Land Survey can on a trial basis accept that both the looking and the ordering and billing can take place within an open circle such as the verifying routines are excluded. The ordering and billing shall take place as follows:

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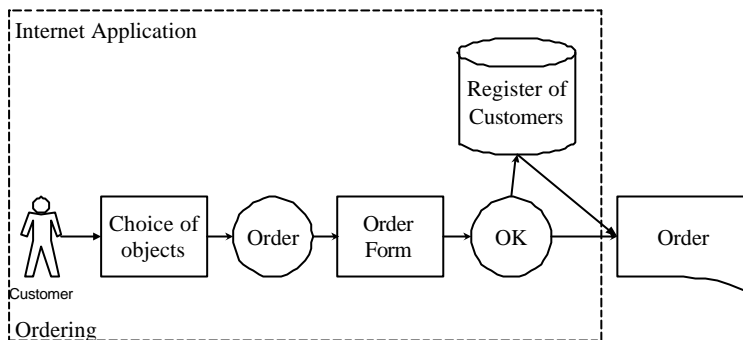
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- a. The user chooses the items he want to order
- b. By pressing the order button he activates the order form with filled in chosen items
- c. The order form is completed with address etc., approved and sent by the customer
- d. The customer register is updated
- e. An e-mail is filled in on basis of the order form and sent to the ordinary customers desk for delivery and invoicing. This routine can be further developed later on, with automatic routines for delivery and invoicing

The University of Greifswald, however, can not allow downloading without being paid in advance. Therefore, the solution for the German maps there only shall be an order form. After the billing and paying of the order has happened, the delivery shall take place.

Order form, also including a licence agreement for acceptance by the customer, appendix 1.

Order Form (sample)

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DHM Order Form
To order digital maps and descriptions on CD or by downloading from the DHM Map, please provide the following information, *required for a valid application:

First name*

Last name*

Organisation*

Street address*

Address(cont.)

City*

State/Province

Zip/Postal code*

Country*

Telephone*

Telefax

E-mail*

Your order: [Lista på innehållet i kundkorgen](#)

Licence agreement:
1. Subject to the terms and conditions contained in this contract, the Vendors agree to grant to the Customer, who accepts, the non-exclusive, and not transferable right to use and process the data specified above.
2. The permission to use the Items is granted on condition; that the information is not

I agree on the above statements.*

Picture from the application

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License agreement

1. Subject to the terms and conditions contained in this contract, the Vendors agree to grant to the Customer, who accepts, the non-exclusive, and not transferable right to use and process the data specified above.
2. The permission to use the Items is granted on condition; that the information is not passed to third parties in other ways than as follows; and that the data are not used for purposes other than:
 - Personal use or use in the Customer's organisation
 - Publishing information from the Item in printed publications

The Customer is granted to use the Item without any time limitation.

3. If published unprocessed, information from the Item shall be marked Copyright (Vendors name).

When submitting this form I agree on the above statements.

Incomplete order forms will not be processed.