

A Simple Efficient Way for Preparing Creative Scientific Papers by PC Using STN Online-service

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Abstract

A simple efficient way for preparing creative scientific papers by a personal computer using STN online-service is given. The internet is effectively used. Difficulty and hints are given for scientific searching and retrieving of full texts.

Key words: Efficient way (有力な方法), Creative paper (独創的な論文), Scientific paper (科学論文), Preparing paper (論文の作成), Personal computer (パソコン), STN, Online (オンライン), Internet (インターネット), Database (データベース), Search (検索)

1. Introduction

Recently many academic online-database services are easily available. The charges of use of these services are becoming low and they supply many kind of databases, from engineering to pure mathematics. Among these we are particularly familiar with the systems, ProQuest Direct [1], JOIS, STN [2] and NACSIS [3].

In this paper we especially focus our attention to STN (The Scientific & Technical Information Network) International system being served by JST (Japan Science and Technology Corporation). At present STN is served by three different online-modes, STNEasy, STN on the web and STN Express with Discover! (STNED). The first two are served on the World Wide Web (WWW) and STNED is served both on the internet and on the public telephone-line. In the following we assume the STNED (Ver 5.0) software is installed in the personal computer (PC) and the appropriate setup is done.

2. Useful Characteristics of STN Express with Discover !

STNED (Japanese version with English setting) for Windows has many useful characteristics :

STNED is a fully integrated software package designed to easily and efficiently search scientific and technical databases online through STN as well as other online hosts. It includes :

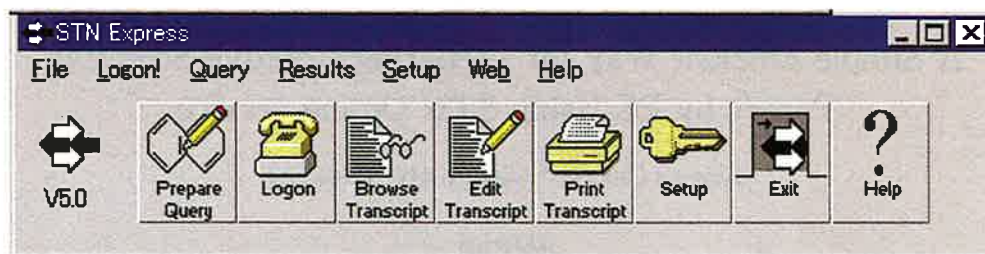
- A “wizard” interface that allows us to easily create a logon setup, select appropriate databases, formulate and refine searches, optimize results, create alerts, and much more, without having to know the STN command language
- Easy retrieval of data for hyperlinked CAS Registry Numbers, databases in the LC (CAS Registry Number Locator) and the OS (Other Sources) fields, and information on patent numbers
- Easy access to options for obtaining the full-text of document records
- Easy access to Web services through our Web browser
- 32-Bit implementation for better compatibility with Windows, including long file names
- Easy structure-drawing and searching on STN
- Fragmentation code generation from query structures for searching in World Patent Index
- Convenient access to the familiar STN command-line interface

3. An Efficient Usage of STNED

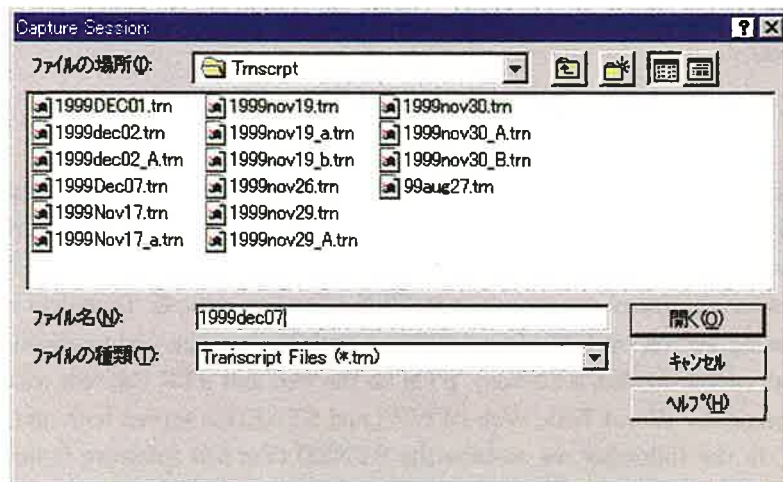
First we open STNED software, then the STNED Main Menu & Toolbar are displayed.

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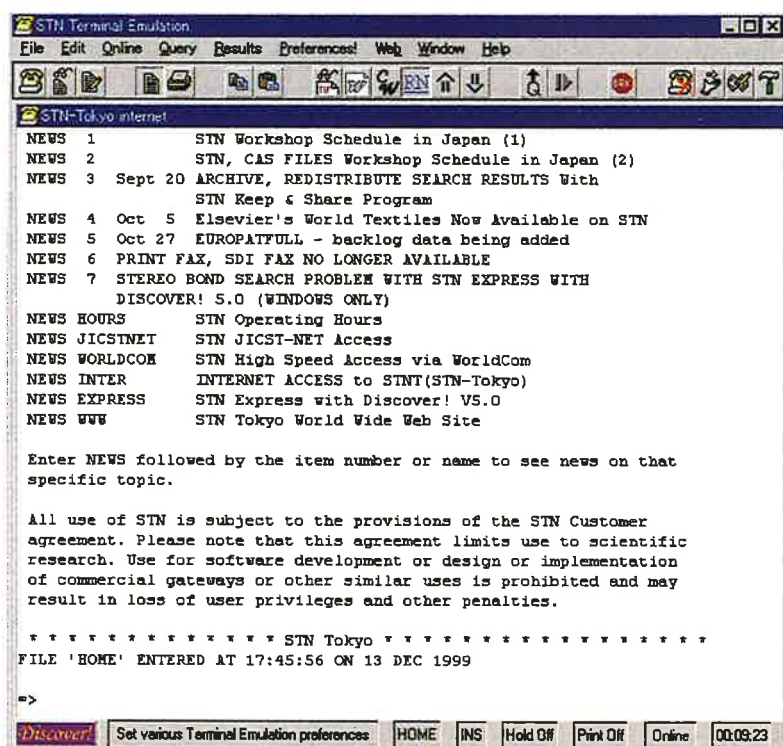
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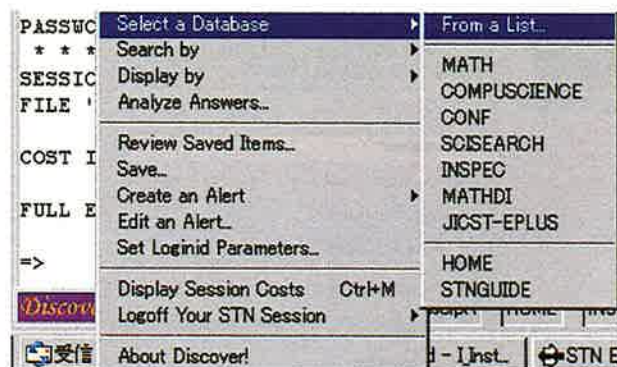
Single click (Sglick) the Logon from our Toolbar or the Main Menu. STNED enables us to use wizards to create our search queries rather than typing commands.



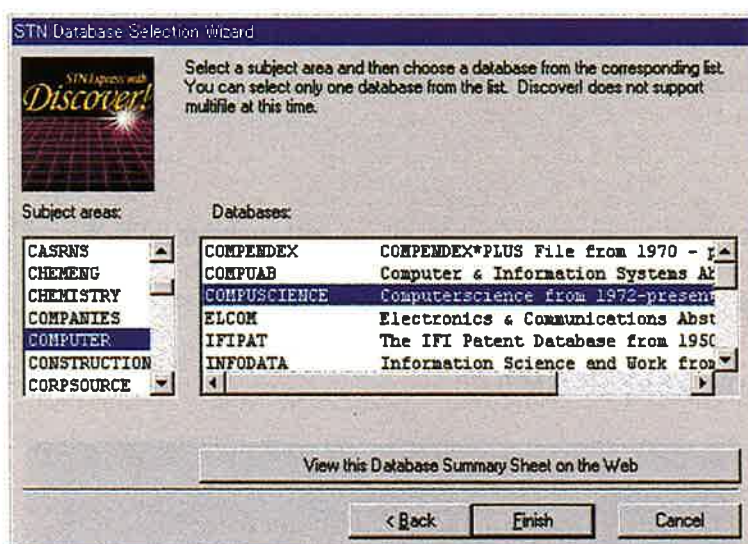
Type the suitable file name of Capture Session and Sglick Open button. We can also choose a suitable file name in the window and double click (Wlick, click being for the case we do not distinguish between Sglick and Wlick.) Sglicking Append button (to that file) in our succeeding process.



From the STN Terminal Emulation window, Sglick the Discover! button located on the Status Bar. A pop-up menu is displayed that offers us options.

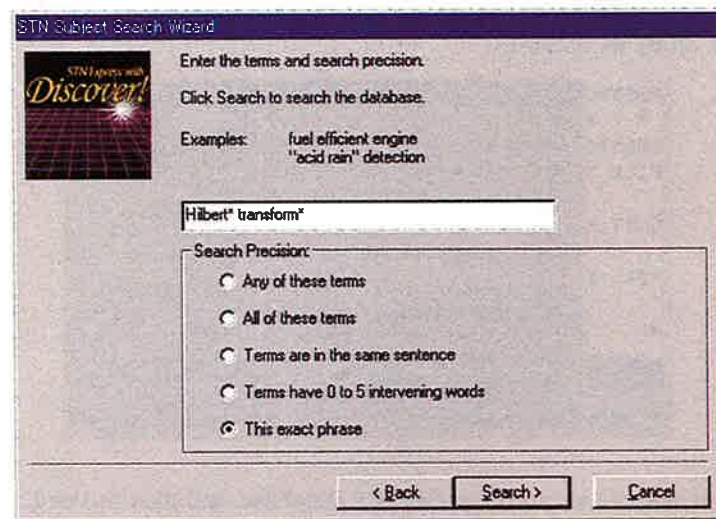


To select a database for our search query, choose Select a Database, and then choose From a List. . . . The STN Database Selection Wizard dialog box is displayed. Select a Subject from the Subject areas list to see databases by subject content. Select a database from the Databases list and Sglick Finish to enter that database. We may select and enter only one database at a time using wizards.



Sglick the following buttons assuming we selected e.g. COMPUSCIENCE database of COMPUTER in Subject areas :

Discover! → Search by → Subject. . .



We select This exact phrase in the Search Precision menu. Let us search the phrase

Hilbert? Transform?

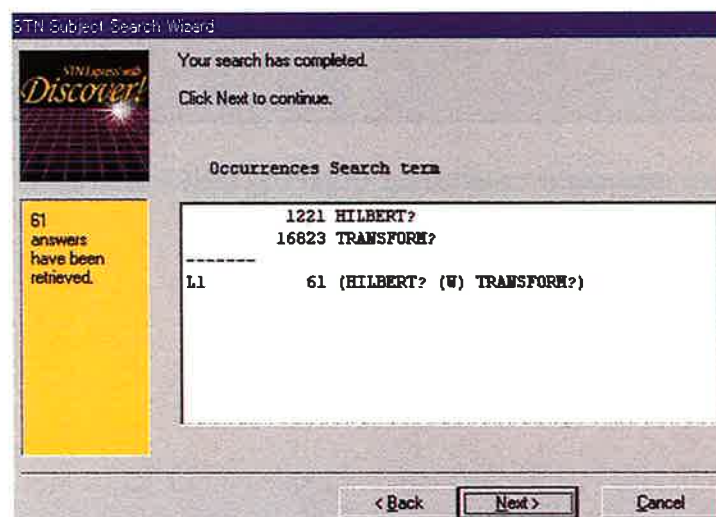
This contains such a phrase as Hilbert's Transformation. Type

E Transform

in the command line if we want to see more Transform...s, without using STN Wizard here. E means Expand command.

Sglick Search button. We have the result :

L1 61 (HILBERT? (W) TRANSFORM?)



To refine our search Sglick the Back button.

STN Subject Search Wizard

STN Express with Discover!

Up to 61 answers will be retrieved if no refinements are made.

To refine your search, select one or more of the options below.
Click Search to search the database.

☐ Refine with a Publication Year
Beginning with: 1945 Ending with:

☐ Refine with a Document Type
Journal

☐ Refine with a word or phrase
APPLIED MATHEMATICS

☒ Refine with Language
English

< Back Search > Finish

In STN Subject Search Wizard let us select English in Refine with Language and Sglick Search button. We have

STN Subject Search Wizard

STN Express with Discover!

53 answers have been retrieved.

Your search has completed.
Click Next for answer display options.

Occurrences Search term

503655 (ENGLISH) /LA

L2 53 L1 AND (ENGLISH) /LA

Refine < Back Next > Finish

Refine to only Conference Material in the Refine with a Document Type. Sglick Search button we have

STN Subject Search Wizard

STN Express with Discover!

2 answers have been retrieved.

Your search has completed.
Click Next for answer display options.

Occurrences Search term

90134 (CONFERENCE) /DT

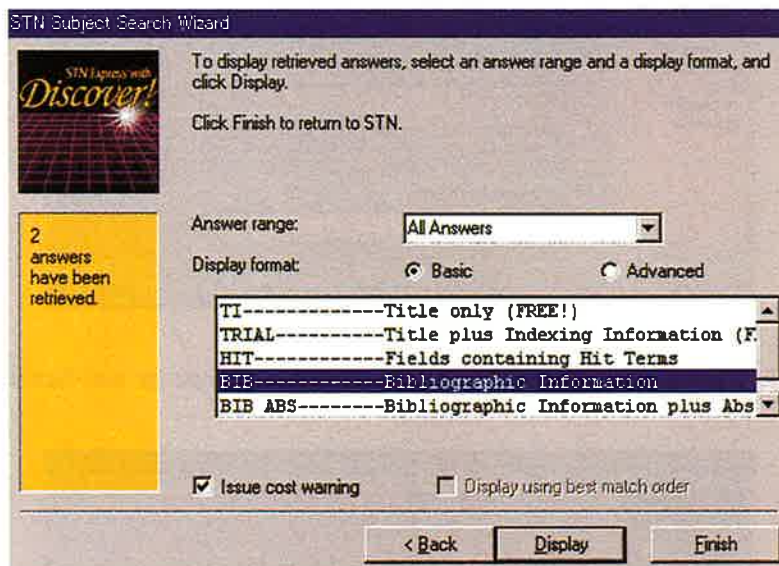
L3 2 L2 AND (CONFERENCE) /DT

Refine < Back Next > Finish

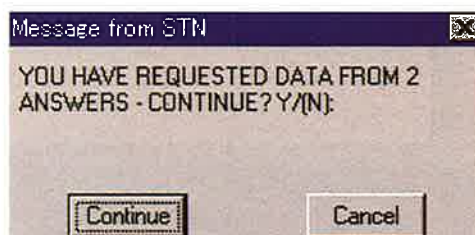
Only 2 materials remain. Let us Sglick Finish button. Next let us choose

Discover !→ Display by → Answer...

Then we have



We select All Answers in Answer range, Basic in Display format, Bibliographic Information and Issue cost warning. Sglick Display button. We have the message

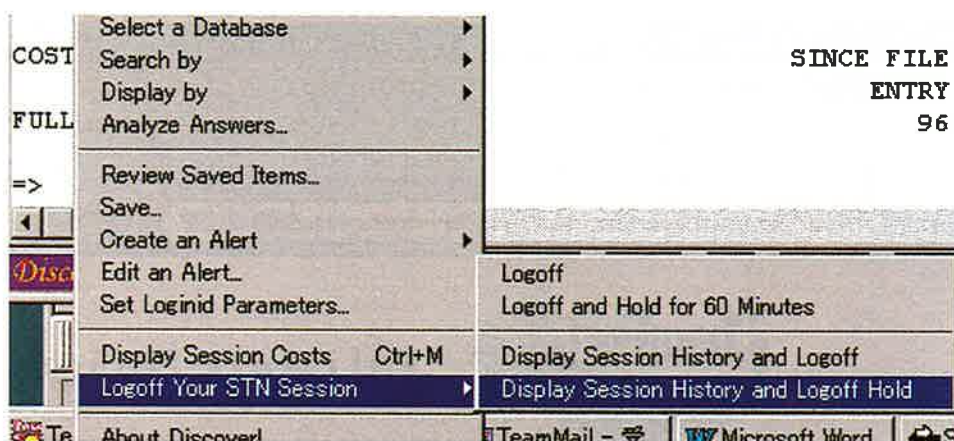


Sglick Continue. We have



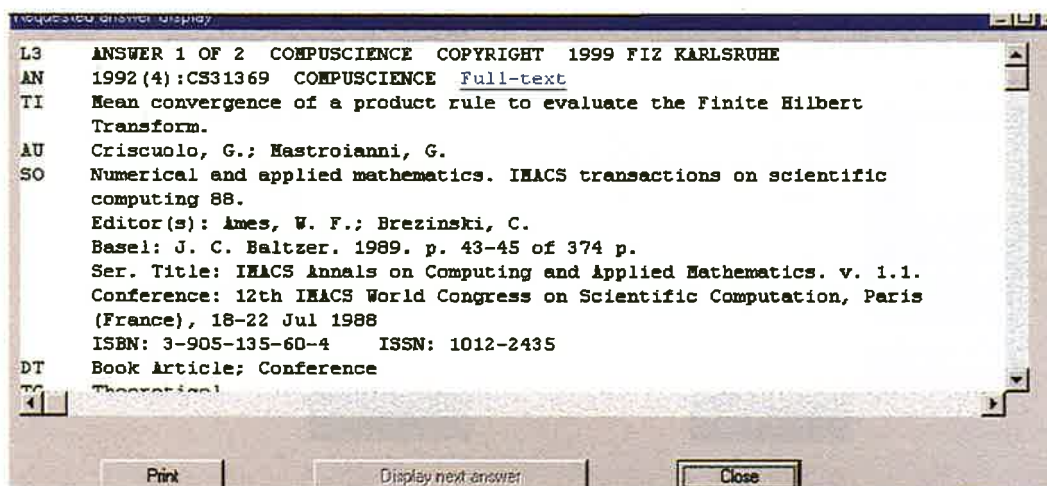
This shows the estimated cost is about ¥428 for display of two materials. If there are many materials to display we would better choose TI or TRIAL mode with cost FREE!, and choose 60 minuits-Hold at :

Discover !→ Logoff Your STN Session →

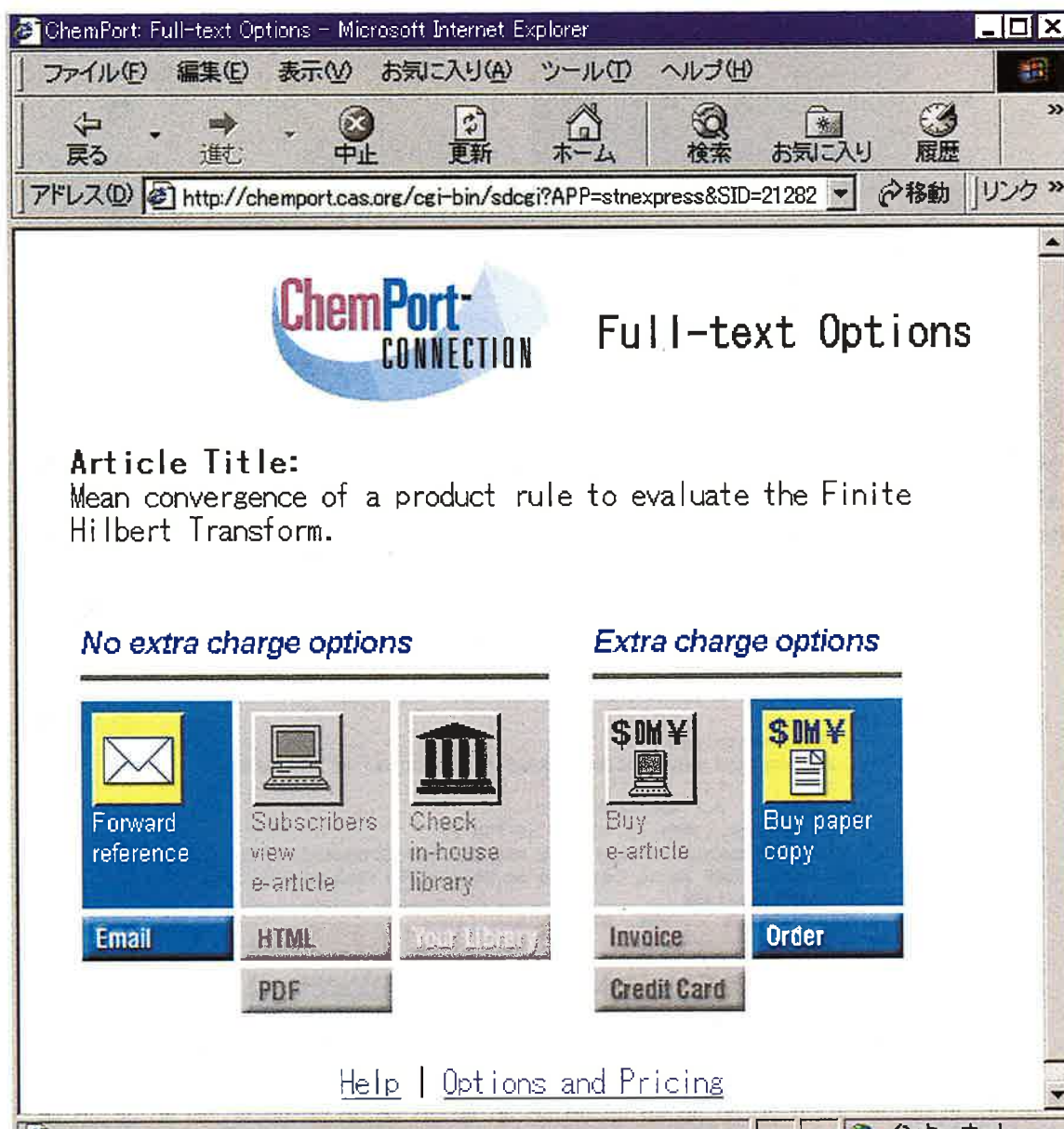


After printing the titles of the materials, enabling to search manually our materials while one hour without connecting charge, we can continue the above session of the STN searching, Sglicking the Logon button on the Tool Bar.

In the Message from STN, ¥428, Sglick Continue button. We have



If we want to have the paper-copy of the full text instead of only the abstract, we need only Sglick the word, Full-text, at AN in the above monitor display. Our Sglicking hyperlinks automatically to the copy-require Web site of the internet

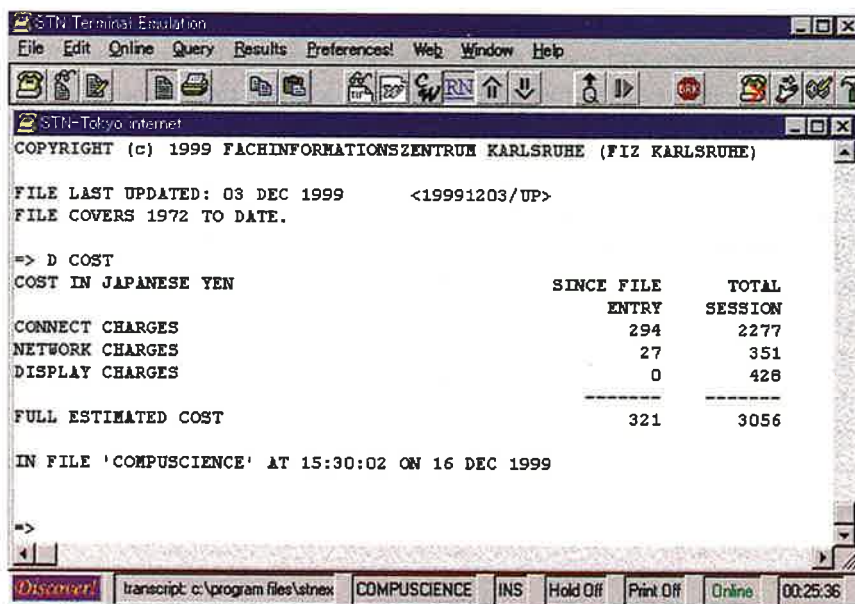


We can have the full text after a few weeks by post mail with the invoice(s).

The invoices consist of three main parts :

- STN connecting charge
- Charge for using the database, searching and displaying the material(s)
- Charge for paper-copying the full text

Session costs are approximately shown by Sglicking Display Session Costs in the pop-up menu of Discover ! button.



These charges do not contain that for paper-copying the full text(s).

4. Difficulty and Hints for Scientific Full Text Search and Retrieving

In the above we represented the detail of our scientific full text search and retrieving by STNED. We point out the following :

- The charge for displaying the result materials is rather high in the modes with abstracts in the case of the number of materials is large (BIB ABS, etc.)
- In the databases of mathematics the abstract(s) probably contain(s) mathematical symbols with TeX format, which in turn makes us difficult to read in STNED at present
- When we open the saved file after Hold or Logoff, it is better to Sglick

Discover ! → Review Saved Items. . . → Display

then we can hyperlink again to the copy-require Web site on the internet by Sglicking Full-text button without entering the same database again

- It is helpful that we can use commands at command line in STNED when we need
- To search more than one database at a time it is not suitable to use STNED
- It is useful that Message from STN shows the estimated cost for displaying the result materials
- 60 minutes-Hold is useful for checking the preliminary result reducing CONNECT CHARGE comparing with being in the state of simple Logon !
- The internet communication possibly takes a little time if the internet traffic is crowded because the internet pages are usually not texts but beautiful images
- It is helpful that we can read the full-text paper-copy(s) by a few weeks from all over the world

5. Conclusion and Perspective

We have presented a simple efficient way for preparing creative scientific papers by a personal computer using STN online-service. We remark several points in this connection :

- In the near future JOIS will be absorbed in STN
- Images, animations, movies and sound data are possibly treated by ProQuest Direct
- However dissertation files in PDF format usually take a lot of time in printing
- JICST-Eplus database gives the English version of Japanese papers
- SciSearch database gives the reference information of papers
- STN can be used as the information filter in the Cyber-epoch
- Search by Author possibly needs affiliations (and year) and subjects
- Present status of databases has the weak point with respect to whether this is a supporting paper or an anti-supporting one for a certain paper (postulate)
- In these points fuzzy theory will play a certain role
- Science history based on statistics using databases such as SciSearch will become a new field of (global) science in the future

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References

- [1] <http://www.hi-tech.ac.jp/>
- [2] <http://www.jst.go.jp/>
- [3] <http://www.nacsis.ac.jp/>

Note added in proof : Recently the electronic edition of Japanese Journal of Applied Physics (JJAP) hyperlinks to references and drawings in the paper. Furthermore the references links to the abstracts of main cited journals ; <http://wwwsoc.nacsis.ac.jp/jjap/>. American Institute of Physics (AIP) has the analogous services ; <http://ojps.aip.org/spinweb/>.