

BIJLAGE K2

Organizing Committee:

NTG: C.G. van der Laan

T.A. Jurriens

SGML: J. Maasdam

J. Bleeker

Courses¹ SGML & T_EX Conference

Groningen, 31 Aug. 1990

General

SGML, L^AT_EX, T_EX, and Metafont courses are offered.²

All courses have transparencies in English. Dutch is spoken. Non-native teachers speak English. Every participant should bring along his or her copy of the L^AT_EX, T_EX, or Metafont book for the appropriate course. The university standard editor, ESE, will be provided, with a summary of the (handful) needed commands. ESE is local on the PC's and on the central VAX8650. (ESE stands for 'Eenvoudige Scherm Editor', i.e., simple screen editor (with built-in programmable line-editor Edin). Participants are, of course, allowed to use the (MS-DOS) editor they are familiar with.

Prices cover also lunch, coffee/tea and hand-outs.

Further information: C.G. van der Laan (cgl@rug.nl)
RekenCentrum RijksUniversiteit Groningen
Landleven 1, 9700 AV, 050-633374
Groningen, The Netherlands

Conference phone number: 050-638080

¹Version 1.2

²SGML and T_EX are standards, ISO respectively de facto. Courses therefore can be organized internationally, once agreed upon the modules and their relation. TUG started the discussion about T_EX course modules, see TUGboat 10#2 and #3. The advantages are sharing teachers and courseware, so we can hope for better and stable quality. Moreover, participants can better plan their education, e.g., take a T_EX intermediate course here and the advanced one at Cork90, to name but two places.

Description SGML Courses³

SGML introduction (?)

During the day participants will acquire a growing, nodding knowledge of SGML. The course will treat: syntaxis, entities, elements, attributes and finally Document Type Definitions.

SGML hands-on (?)

In this three day course participants will get an active knowledge of SGML. SGML documents will be coded and parsed. After this course reading SGML coded documents and modifying DTD's should be no problem for you.

Pre-requirements: experience in working on PC's with an editor.

Description T_EX Courses

Intermediate T_EX (Amy Hendrickson)

Day 1: Understanding boxes, glue, and modes and how they interact. Making tables, seeing how boxes, glue, and modes determine the way the table works.

Day 2: Macro writing. Delimited and undelimited macros, macros inside other macros, two-part macros for catcode changes, registers and counters, conditionals.

Day 3: Font families and introduction to output routines.

Advanced T_EX (Victor Eijkhout)

The course aims to provide ambitious T_EX users, in particular developers of formats or L^AT_EX document styles with detailed knowledge of certain crucial parts of T_EX. Focussing more on the 'define' than on the 'use' aspect of T_EX, mechanisms of lexical scanning and expansion, and basic constructs like boxes and modes will be considered in detail. Worked out examples will be directed towards the development of tools for macro packages.

Contents: a selection from the following topics will be covered; prospective participants are invited to indicate a preference for topics mentioned, or other topics of their own choice. T_EX's mouth: all about `\par`, spaces, line ends; definition and explanation of internal states and category codes and how they interact.

- Expansion: lots of info about `\csname`, `\edef`, `\expandafter`, `\futurelet`, `\noexpand`, conditionals, and the use of token lists.
- Boxes and modes: what box in what mode, or what mode in what box? Differences between internal and external modes; use of box registers; size and positioning of boxes.
- Paragraphs: what happens at the start and end of a paragraph, featuring `\leavevmode`, `\everypar`, and `\par`; explanation of `<horizontal command>s` and `<vertical command>s`.
- Output routines: marks, headlines and footlines, multi column output.
- Characters: fonts in formulas, `\chardef`, and the equivalence of characters and numbers.
- Tracing the workings of T_EX: `\tracingoutput`, `\tracingmacros`, and many more.

Pre-requisite: anyone who has followed the Intermediate T_EX course is fully prepared for this course. A test-in-a-nutshell: the ideal participant should have used the following constructs, or understand what they mean:

- `\newbox\MyBox`
- `\def\MyMacro\#1\par{...`
- `... % this comment prevents a space`
- `\ifnum\MyCounter>0 ...`

³Still not settled.

Description L^AT_EX Courses

L^AT_EX introduction (Kees van der Laan)

During the first day the basics of L^AT_EX are explained and some elementary document forms — a letter and article — are dealt with, starting from templates. On the second day typesetting tables and/or mathematics via L^AT_EX are exercised. The last day is devoted to including elementary graphics in an article as well as providing running heads, footers, creating tables of contents, an index and the like. The problem of including program listings in the document will be treated. The mechanism of symbolic referencing will also be given. Other styles than letter and article will be mentioned. The availability of macros and styles on file servers, along with procedures how to get them, will be discussed. The future of L^AT_EX will be dealt with at the end of the third day.

Note: L^AT_EX *as is*, will be treated; no modification of styles!

Courseware: Publiceren met L^AT_EX, CWI-syllabus 19, and some hand-outs.

Pre-requisite: experience in working on PC's with an editor.

L^AT_EX document style design (Nico Poppelier)

In the two-day course 'L^AT_EX document style design' I will explain the function of document styles in the L^AT_EX system. The first day will be devoted to a study of one of L^AT_EX's standard document styles. I will discuss the various parts of a document style and explain how a document style can be adapted to obtain certain results. The second day will be devoted to creating a new document style for a layout that is different from the layout of the standard styles.

Both days will consist of a theoretical and a practical session. In the practical sessions the participants can practice with creating document style options and document styles.

Pre-requisites for this course are:

- (i) ample experience with L^AT_EX,
- (ii) knowledge of T_EX, at least enough to grasp the meaning of T_EX commands that are used in `latex.tex` and in the document styles; among these are commands for register arithmetic, changing catcodes, macro definitions and if constructions.

Every student should bring his or her own copies of the L^AT_EX book and the T_EX book.

Description Metafont Course

Logo design via Metafont (Doug Henderson)

Day 1: MF BASICS

- The Coordinate System
- Screen Coordinate System
- MF coordinate system
- Control points and how to define them
- Pens
- Curves
- Paths
- Pictures
- Exploring strokes of the pens with curves
- Exploring paths and their connectors
- a few problems to be assigned relating to day 1 material.
- (students are not required to do these but they should at least look at them!)

Day 1, 2: COMPUTER MODERN ORGANIZATION

CM Organization

Looking at various file types - what is CM?

Files, file types in computer modern

base files

driver files

parameter files

program files

Walk through the creation of CMR10

Creating CM fonts

exploring more MF commands

command line mechanics

dissection of a command line

modes

magnification

screenchars/screenstrokes

Manipulation of existing CM fonts

parameter changes, results

MF Utility Exploration

GFtype

GFtoPK

GFtoDVI

the above class may lapse into day 3 a little bit (or be started from day 1 if there isn't enough material in day 1)

Day 3: LOGO CREATION BASICS

Walk Through A Logo Creation

eyeing the graphic image (artwork)

mapping it out on graph paper

choosing control points

refining your choice of control points

connecting everything up

making a character out of this creation

At the end of day 3, we then look at some more complicated MF commands, which help with creation of character forms such as penpos, and some transformation commands to manipulate picture variables (this material is optional and students may wish to begin working on their logos at this time).

Day 4: APPLYING WHAT WE'VE LEARNED

Students will create a simple logo in class of their own

(or their companies) design. This 'on paper' design can then be tested out, debugged and refined with the help of the instructor. Previous days knowledge will be directly applied while working in class or finished back home at the work place.

Courseware: class notes to accompany the lecture (monologue).

The students should bring

- (a) A willingness to learn the basics of MF.
- (b) A desire to learn MF knowledge and use same to create a logo.
- (c) Familiarity with editing on a PC (or willingness to learn the basics of one rapidly), preferably bringing their own or one they are comfortable with.
- (d) A very basic understanding of T_EX with respect to boxes — know what width, height, and depth mean in a T_EX box. Students are encouraged to pursue this knowledge (before class starts) if unknown.

- (e) A simple (!) graphic that they wish to make with MF. We will be devoting most all of day 3 to creating the student's own graphics image with help from instructor. Exploring strokes of the pens with curves.

The Teachers

Victor Eijkhout (u641000@hnykun11)

Victor is a numerical mathematician currently finishing his ph.d. research in iterative methods. He has programming experience in languages ranging from Fortran, via Apl, to Lisp, and has used T_EX intensively for the last 3 years. Although primarily a user of Plain T_EX, he has programmed for the Dutch T_EX users group L^AT_EX styles to replace the standard ones. Currently his prime occupation in T_EX is his 'lollipop' macro package. He has published about T_EX in Tugboat vol 10#3 and vol 11#1. When not T_EXing, handling T_EX-NL queries, or doing mathematics, Victor plays church organ and bass guitar.

Doug Henderson (dlatex@ucbmsa)

I became involved with T_EX and Metafont at the University of California's division of library automation. I have developed P_CMF, a version of Metafont for the IBM PC, serve as Metafont coordinator for TUG, and teach Metafont classes. At the moment I'm 'typist' within Blue Sky Research in Portland, Oregon.

Amy Hendrickson (amyh@ai.mit.edu)

I've worked as a full time T_EX consultant for the last 6 years, writing macros for book production for many publishers and a number of software companies. My macros have been distributed to a number of authors by the MIT Press and Addison-Wesley publishing companies. In addition, I am the author of MacroT_EX, a large T_EX macro package that I have distributed internationally through my company, T_EXnology Inc. and also through Personal T_EX and TUG. I have taught beginning, intermediate and advanced T_EX courses for TUG as well as for a number of companies and recently, the MIT Information Services.

And I still think macro-writing is fun— especially if someone comes up with a nice hard problem. Currently I'm interested in writing code that uses both T_EX and PostScript commands. My background is in music composition.

Kees van der Laan (cgl@rug.nl)

I'm involved in T_EX and SGML because of my personal interest in computer typography and electronic publishing in general, and because the University of Groningen offers document preparation services to the (academic) community. With respect to the latter, I have worked on L^AT_EX courseware — Publiceren met L^AT_EX, CWI Syllabus 19 — and prepared an SGML course. I'm also practising L^AT_EX/T_EX, among others in relation to SGML, and have published some articles and reports in this area. Typesetting bridge has my private interest.

For the time being I'm chairperson of the NTG (Dutch T_EX Users Group), and member of the board of the SGML Holland Users Group, as well as member of a few working groups. My first function entails the membership of the board of directors of TUG, since Stanford 89. My current position is head of the applications division of the computer centre of the University of Groningen. I'm on the examination committee HP1 (AMBI module Program correctness) of EXIN (Ministry of finance examination institute for non-regular computer science education) and corrector of T5 (AMBI Pascal module). AMBI88 comprises a set of computer science examinations at the higher professional education level aimed at structuring non-regular education. My background is

- numerical mathematics (Published with N.M. Temme: Calculation of special functions . . . , CWI Tract 10.), and

- software engineering (Written a lot of programs for the CWI NUMAL library and C6 chapter of NAG Algol68. Activities with respect to integrating software: using FORTRAN libraries from Algol, Pascal, ADA; coupling SGML to (La)T_EX.)

I like to play flute, bridge and do some gardening.

Nico Poppelier (poppelier@hutruu53)

About five years ago I first saw a short demonstration of L^AT_EX, and after this first encounter I was convinced of the strength and possibilities of this document preparation system. I am still convinced that the basic idea behind L^AT_EX is very valuable, and that it is a very powerful and flexible system.

For several years now I have been a member of the T_EX Users Group (TUG) and the Dutch T_EX Users Group (NTG). I try to invest as much time as I can in the work of the NTG working group 13, which is responsible for creating document styles suitable for Dutch and possibly even European usage.

As a direct consequence of my activities with L^AT_EX I was invited to participate in a research project of *Elsevier Science Publishers* (Amsterdam) in the spring of 1989. In January 1990, after finishing my Ph.D. research, I obtained a permanent job at *Elsevier Science Publishers*.

In the fall of 1989 I started my own bureau for L^AT_EX training and document style design. In early spring 1990 I taught beginners' and intermediate L^AT_EX at the University of Utrecht.

In the near future I will try to assist in the development of the new L^AT_EX version, and will continue with writing a Dutch L^AT_EX book, together with another member of the NTG.

Courses

SGML⁴

SGML introduction (Teacher: ?; 30 aug, no hands-on)

SGML advanced (Teacher: ?; 28, 29, 30 aug, hands-on)

T_EX — conform TUG modules⁵ —

L^AT_EX basis (Kees van der Laan, 3, 4, 5 sept)

L^AT_EX styles (Nico Poppelier, 29, 30 aug)

T_EX intermediate (Amy Hendrickson, 28, 29, 30 aug)

T_EX advanced (Victor Eijkhout, 3, 4, 5 sept)

Metafont logo design (Doug Henderson, 3, 4, 5, 6 sept)

Survey

Course	Aug			Sept				Logistics
	28	29	30	3*	4	5	6	
SGML introduction			*					≤ 30 participants.
SGML 'hands-on'	*	*	*					PC's with Sobemap parser on PC server. 16 à 20 PC's.
L ^A T _E X basis				*	*	*		16 à 20 PC's.**
L ^A T _E X styles		*	*					16 à 20 PC's.**
T _E X intermediate	*	*	*					16 à 20 PC's.**
T _E X advanced				*	*	*		16 à 20 PC's.**
Metafont Logos				*	*	*	*	Macintosh PC's ór 16 à 20 MS-DOS PC's with Metafont on server.**

* Monday morning 3 sept no hands-on

** VAX8650 access

⁴Eventually course about document design will be offered. More on that soon.

⁵see TUGboat 10, 2 & 3.

Course Booking Form

SGML & T_EX conference, Groningen, Aug. 1990

Name: _____

Organization: _____

Address: _____

Telephone: _____

Email: _____

SGML intro (1 day) f 250,—* f 400,—**SGML hands-on (3 days) f 750,— f 1250,—L^AT_EX intro (3 days) f 750,— f 1250,—L^AT_EX styles (2 days) f 500,— f 800,—T_EX intermediate (3 days) f 750,— f 1250,—T_EX advanced (3 days) f 750,— f 1250,—Metafont Logos*** (4 days) f 750,— f 1250,— +

Total amount:

Membership any SGML/T_EX Users Group discount: 20% —

Amount due: _____

*nonprofit c.q. ** profit organizations *** 4-day course for price of 3!

Payment: check/giro enclosed

Signature: _____

Date: _____

Payment and Registration Address Please send this completed form, together with your payment, (and membership NTG/SGML appliance as appropriate), to the NTG-SGML conference treasurer:

Koen Mulder: SGML Holland Users Group, Giro: 2905269

Postbus 1148, 6801 MK, Arnhem, The Netherlands

Notes Hotel information: VVV (i.e. Tourist office), Naberspassage 3, 9712 JV, Groningen, phone: +31 50 139700, fax: +31 50 136358; participants are supposed to make hotel reservations themselves. How to come there will be sent in July. Courses will be cancelled in case of insufficient number of participants, to be decided in June; participants will be informed and paid fee will be refunded.

Individual cancellations: 50% of the course fee is refundable if notification of cancellation is received or postmarked before 1st of July. 20% is refundable if notification of cancellation is received or postmarked two weeks prior to the starting date.