

THE TFM MARKET IN EUROPE

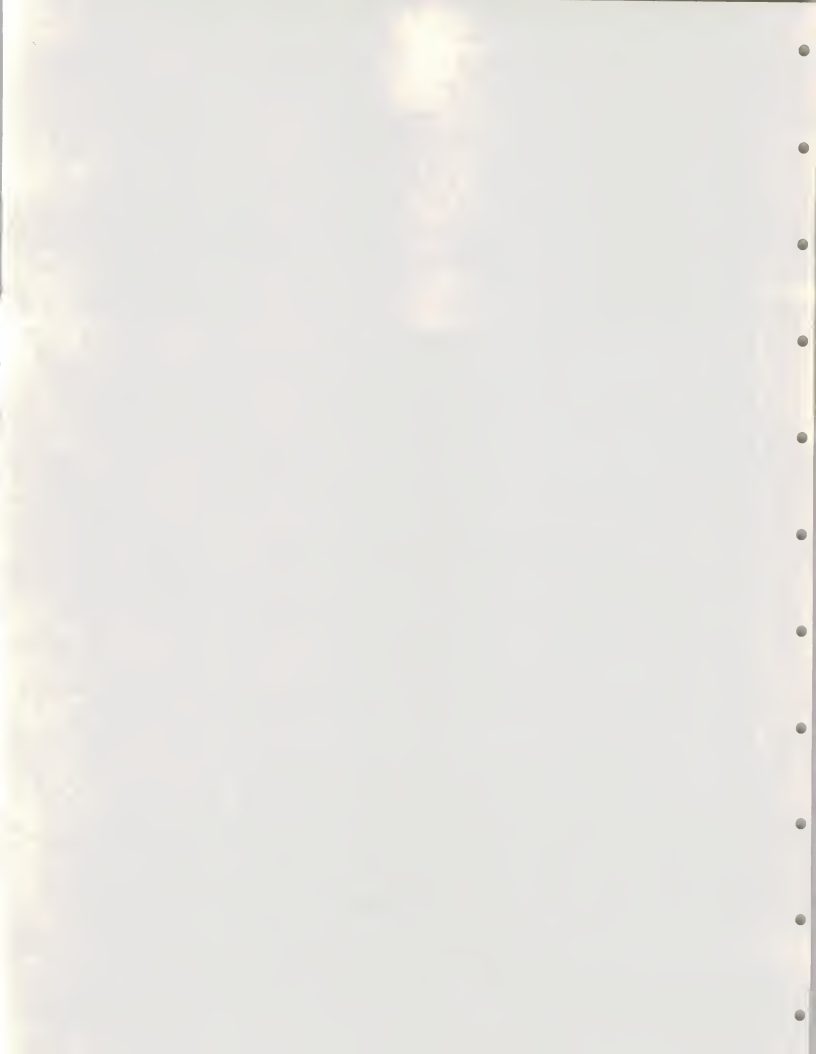
June 1983

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THE THIRD-PARTY MAINTENANCE
MARKET IN EUROPE

JUNE 1983



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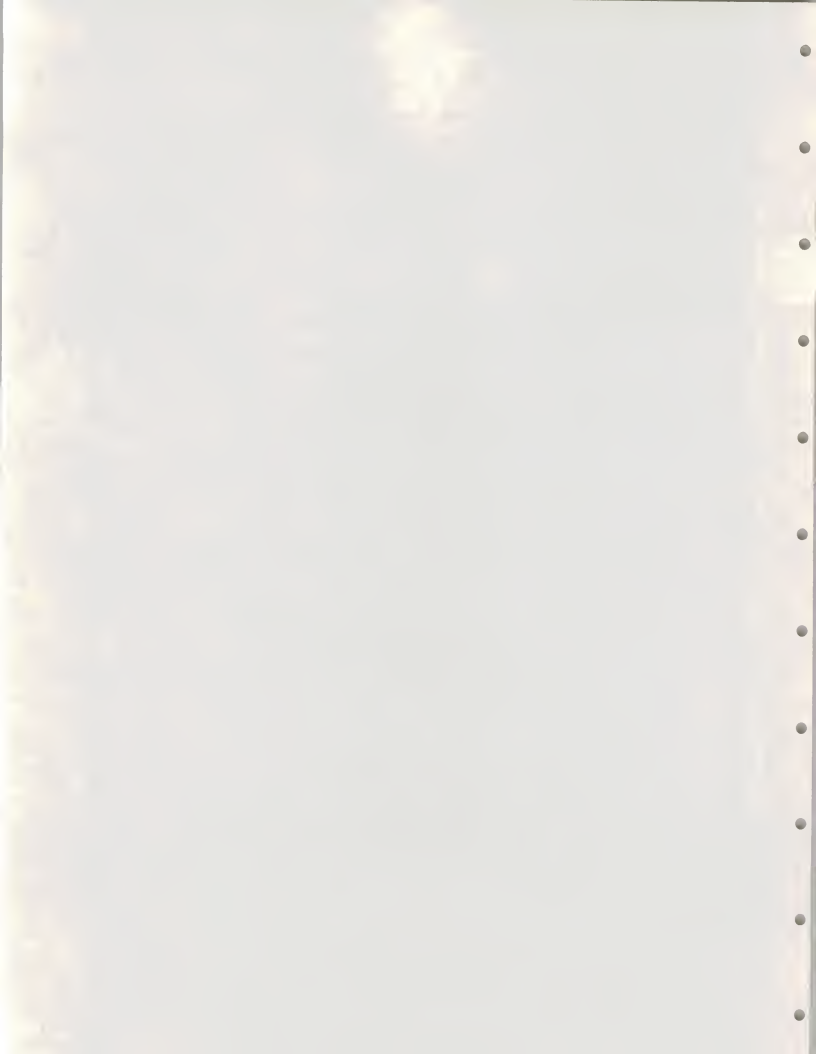
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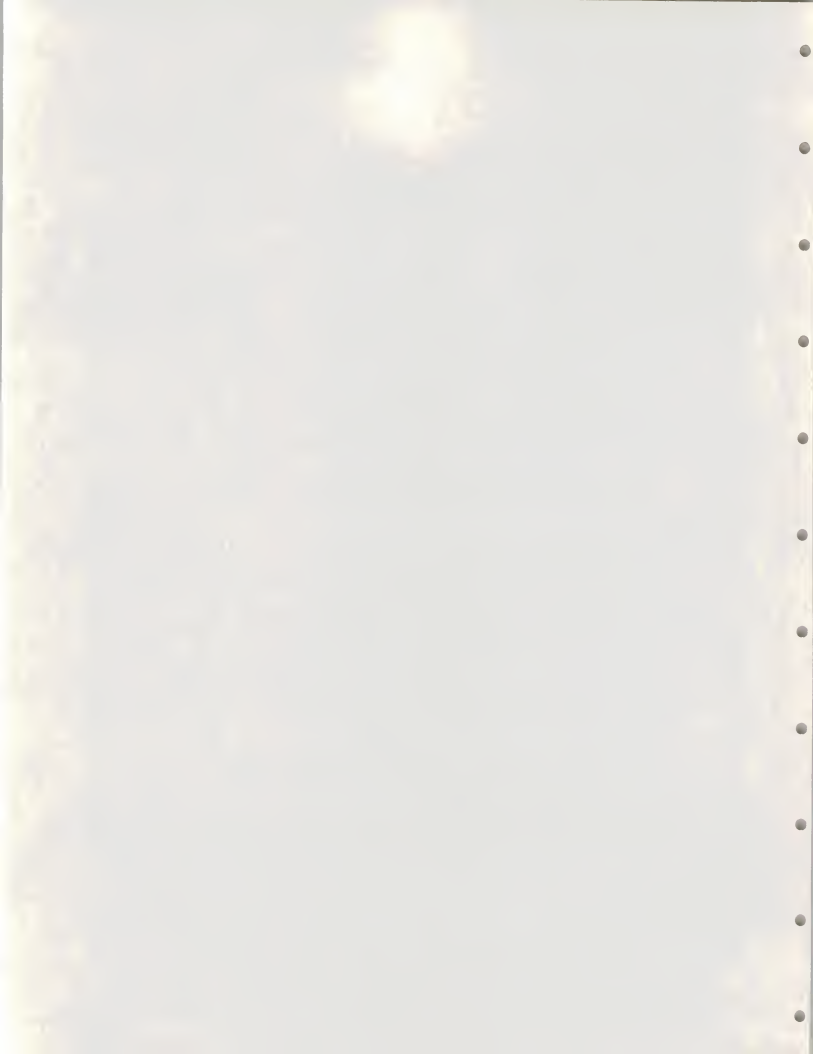
**THE THIRD-PARTY MAINTENANCE
MARKET IN EUROPE**

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I INTRODUCTION



I INTRODUCTION

A. PURPOSE

- According to INPUT's 1982 Annual Users' Survey, the interest in third-party maintenance (TPM) in Europe is very strong. One cause of this interest is the increasing cost of service, but the principal cause is the need for flexibility, which TPM firms can provide better than their large manufacturing competitors. This flexibility involves the following (which will be discussed in detail in Chapter IV):
 - Customized service to fit users' unique needs.
 - Appropriate response times.
 - Personalized service.

- Because of the dramatic growth and development of TPM in the U.S. and because of a significant interest in TPM in Europe from both user and vendor constituencies, INPUT has developed this report, The Third-Party Maintenance Market in Europe, as part of its 1983 Field Service Program - Europe. Readers are encouraged to provide INPUT Ltd. with any comments concerning this report.

B. SCOPE

- This report includes TPM market information by countries including the U.K., Germany, France, Scandinavia, Netherlands, Belgium, and Italy. Products information includes large, medium, and small systems; peripherals and terminals are also addressed, as in an analysis of providers of TPM.
 - User attitudes about TPM are discussed in Chapter III, particularly the motivations of those using or considering the use of TPM.
 - Vendor profiles are presented in Chapter IV, where company information, operations, resources, marketing, and trends are highlighted from respondent firms.
 - A listing of known TPM vendors is included in Appendix A, with company names, addresses, and telephone numbers.
 - A sample of various TPM contracts is included in Appendix B.
- This report assesses the TPM market as a dynamic one undergoing many changes (particularly because of microcomputers). It should be noted that this is the first known European report of its type and that, while everything possible has been done to assure its validity and accuracy, the dynamics of the TPM market could affect the forecasts and conclusions herein.

C. METHODOLOGY

- All TPM vendors listed in Appendix A were contacted and requested to complete the questionnaire, exhibited in Appendix C. The response resulted in 24 completed questionnaires.

- Nine interviews were conducted on-site.
- Fifteen interviews were completed by post.
- Exhibits I-1 and I-2 provide lists of respondents by company and by job title respectively. The list of companies is a substantial representation of currently known TPM markets and indicates that respondents were usually managers or executives.
- Additionally, 175 users responded to questions and attitudes regarding TPM. These questions were part of INPUT Ltd.'s 1982 Annual Survey, including "Have you considered using a third-party maintenance vendor? Why or why not?" Distribution of user respondents by country is shown in Exhibit I-3. It is the user who spends money for maintenance, and it is important to account for his views on TPM.
- Financial estimates and projections are based on the U.S. dollar. This is simply a convenience and does not reflect a U.S. bias or sample. Answers to questions were usually given in local national currencies and converted into dollars at the rates shown in Appendix D.

EXHIBIT I-1

LIST OF VENDOR RESPONDENT COMPANIES

The Byte Shop
Cable and Wireless UK Services Ltd.
Commercial Data Systems
Compagnie Internationale de Services de Telecommunications
Computer Field Maintenance Ltd.
Computer Terminal Service
DDT Maintenance Ltd.
DPCE
Data Logic Ltd.
Escon
GCS Engineering
Hamilton Service
ISS Inmentic A.S.
Infomat
Mainstay Computer Cover Ltd.
Nexel Ltd.
Q-Com Maintenance
Systems Maintenance and Service Ltd.
Telefile Computer Products Ltd.
Teleprinter Equipment Ltd-Datacore
Telub AB
Terminal System Services Ltd.
Thijssen Field Service
Vollwood Computer Service GmbH

EXHIBIT I-2

LIST OF VENDOR RESPONDENTS BY JOB TITLE

Technical Director - 2
Customer Service Manager - 3
Vice President of Service
Managing Director - 9
Technical Manager
Director - 2
General Manager
Sales and Marketing Representation
Marketing Director
Field Operations Manager
National Service Manager
New Business Director

EXHIBIT I-3

USER RESPONDENTS BY COUNTRY

COUNTRY	NUMBER OF RESPONDENTS
Belgium	8
France	17
Germany	28
Italy	17
The Netherlands	11
Scandinavia	37
United Kingdom	57
Total	175

II EXECUTIVE SUMMARY

II EXECUTIVE SUMMARY

A. BACKGROUND

I. OVERVIEW

- Third-party maintenance (TPM) is becoming an increasingly acceptable means of support to end users. This acceptance is expected to increase in proportion to the expansion of geographic coverage and the improvement in services of TPM vendors.
 - Private label maintenance, whereby a manufacturer contracts its entire maintenance activity to a third party, is an important component of this market.
 - Low-cost products, from terminals to personal computers, including the whole office equipment area, are already lucrative markets for third-party maintenance vendors and include the fastest growing markets: personal computers, workstations, and terminals.
 - Major marketplace developments include:
 - Proliferation of vendors.
 - Availability of new equipment distribution channels.

- Shifts in user service criteria and methods.
 - Trend towards micro-based systems.
 - Need for combined software/firmware/hardware services.
- For vendors of TPM the markets in Western Europe are enormous. Based on user and vendor surveys, INPUT's estimate of the total current European TPM market is as follows:
 - While \$92.2 million is currently being spent, INPUT, through its research and as explained later, reckons that the current potential market for TPM is \$1.5 billion.
 - This is based on user opinion.
 - It furthermore indicates that current demand is 16 times actual business.
 - Throughout the report the potential market (1983) is evaluated at \$1.5 billion.
 - Details, projections, and rationale for these estimates are explained in Chapter II-B.

2. TERMINOLOGY

- Third-party maintenance is a term used to describe maintenance service for someone else's equipment. There is a growing dislike of the term by TPM vendors.
 - The main reasons are that "third-party":

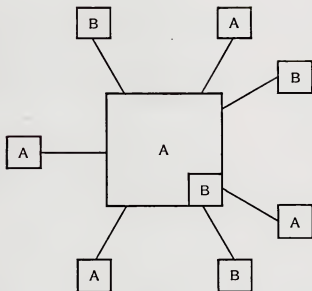
- Doesn't properly describe the business of servicing someone else's equipment.
 - May be misconstrued to incorporate third-party (computer) leasing business.
 - Is perceived by some to have a negative connotation.
- There is an active campaign in the U.K. to change the term to "independent maintenance."
- There are two basic types of TPM: Limited TPM is service provided by a vendor of another vendors' equipment that is attached or interconnected to the primary vendor's (or his agent's) equipment, as shown in Exhibit II-1. Unlimited TPM is service provided by a vendor on any equipment regardless of the TPM firm's relationship with the manufacturer.
 - Limited TPM service is generally not competitive but exists as a convenience to the user and sometimes to the second vendor, who may not wish to maintain his own product. It benefits the user who wants to centralize the maintenance responsibility for a range of different manufacturers' products.
 - For example, a user might have a Honeywell DPS 8 system as its principal distributed processing resource with a quantity of other vendors' terminals and peripherals connected (DCD, Data Products, etc.).
 - Because Honeywell engineers perform the major service (and may already be resident on-site), the user desires Honeywell service on all equipment.
 - Unlimited TPM is usually competitive. That is, the user has a choice between manufacturers' (or their agents') service and independent service. The scope of TPM can become confusing and somewhat ambiguous.

EXHIBIT II-1

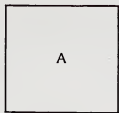
LIMITED THIRD-PARTY MAINTENANCE

LIMITED

Vendor A maintains its own products as well as other products as long as they are interconnected. Vendor A, therefore, engages in limited third-party maintenance.



Key:



= Vendor A's System



= Vendor A's peripherals, terminals, etc.



= Vendor B's peripherals, terminals, etc.

- Seventy-two percent of the TPM vendors responding to INPUT's survey operate in dual roles.
 - This means that these vendors provide service both as agents to a certain manufacturer and as a competitor of another manufacturer.
 - There also can be more than one type of TPM for the same manufacturer, and this is increasingly the case for microcomputers. An Apple microcomputer, for example, can be maintained by Apple, the dealer or distributor who sold it, and also by both authorized (e.g., RCA Services) and unauthorized (e.g., SORBUS) TPM firms.
- Exhibit II-2 shows, for microcomputers, at least seven channels of distribution, each of which may retain or pass on maintenance responsibility. This report treats TPM at all levels and both limited and unlimited TPM as one entity.

B. MARKET SUMMARY: EUROPEAN TPM

- I. TOTAL WESTERN EUROPEAN TPM MARKET, 1983, BY COUNTRY
- The total 1983 potential market for TPM in Western Europe today is \$1.5 billion as shown in Exhibit II-3. Actual 1983 expenditures are shown in Exhibit II-4.
 - As noted earlier the difference between current expenditures for TPM (\$92.2 million) and the total potential market for TPM (\$1.5 billion) is unfulfilled user demand.

EXHIBIT 11-2

MICROCOMPUTER CHANNELS OF DISTRIBUTION

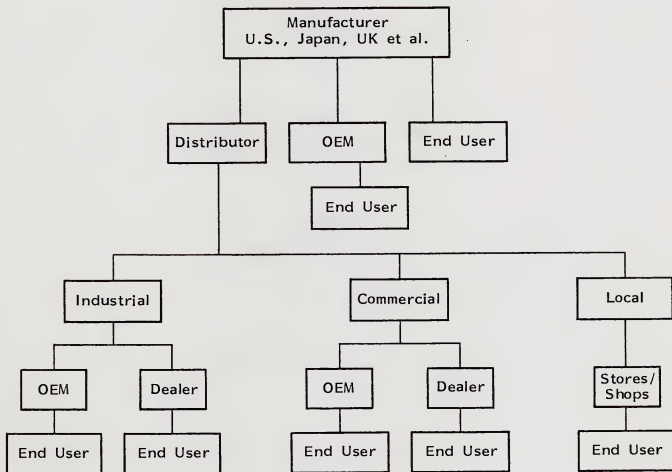
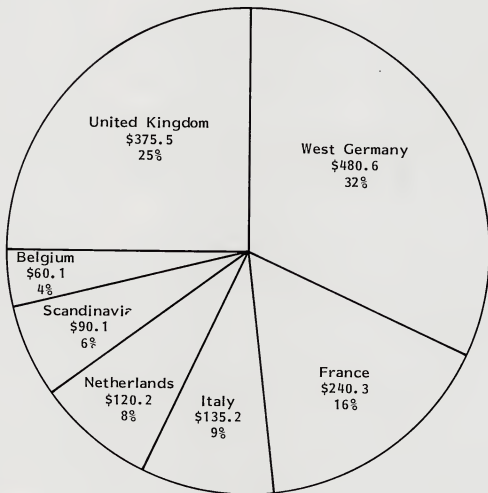


EXHIBIT II-3

POTENTIAL WESTERN EUROPEAN THIRD-PARTY MAINTENANCE MARKET
1983, BY COUNTRY
(in \$ millions and percent of total)

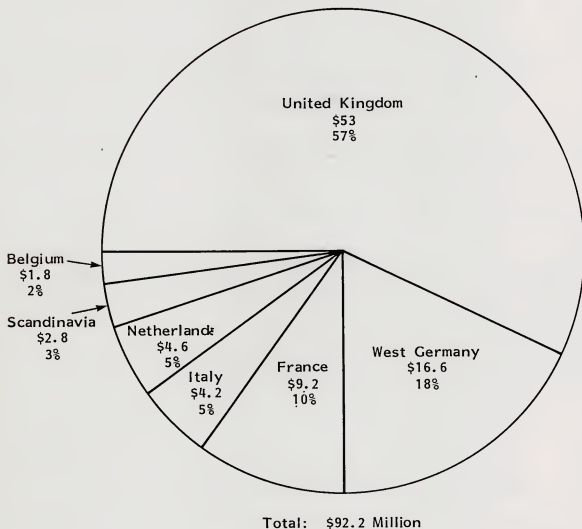


Total: \$1,502 Million

SOURCE: INPUT Users' Survey, INPUT Estimates

EXHIBIT II-4

CURRENT WESTERN EUROPEAN THIRD-PARTY MAINTENANCE MARKET
1983, BY COUNTRY
(in \$ millions and percent of total)



SOURCE: INPUT Users' Survey, INPUT Estimates

- For example, the current expenditure for TPM in the U.K. is approximately \$53 million; however, the current demand as expressed by users is over seven times that or \$375.5 million.
- West Germany, France, Italy, the Netherlands, Scandinavia, and Belgium likewise are represented in terms of user potential for TPM - not by current expenditures.
- The business sources of these markets, shown in Exhibit II-5, include users currently employing TPM, users expressing an interest in TPM, users afraid of TPM, and users not aware of TPM.
- Assumptions and rationale for these estimated market values are described in Section 8.

2. POTENTIAL WESTERN EUROPEAN TPM MARKET, 1983, BY PRODUCT

- Exhibit II-6 shows a breakdown of the total potential Western European TPM market, by product. Market segments by product range from 2.1% of total market to 32.3% of total market.
 - Mixed systems, terminals, microcomputers, and small systems represent 80.7% of the potential European TPM market.
 - However, large systems currently account for the largest TPM market.
 - The bases for this estimate are described in Section 8.

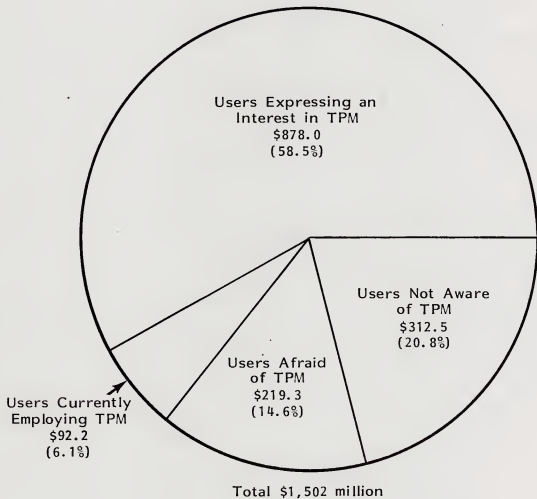
3. WESTERN EUROPEAN TPM MARKET, 1983-1986

- The dramatic growth rate of TPM is projected in Exhibit II-7. Between 1983 and 1984 and also between 1985 and 1986, the annual growth rate is projected at 32%. From 1984 to 1985 the growth rate is slightly less, 30%, because a large number of microcomputers are expected to be sold then, and they will be under warranty (nonrevenue producing).

EXHIBIT II-5

POTENTIAL WESTERN EUROPEAN THIRD-PARTY MAINTENANCE MARKET
1983, BY BUSINESS SOURCES

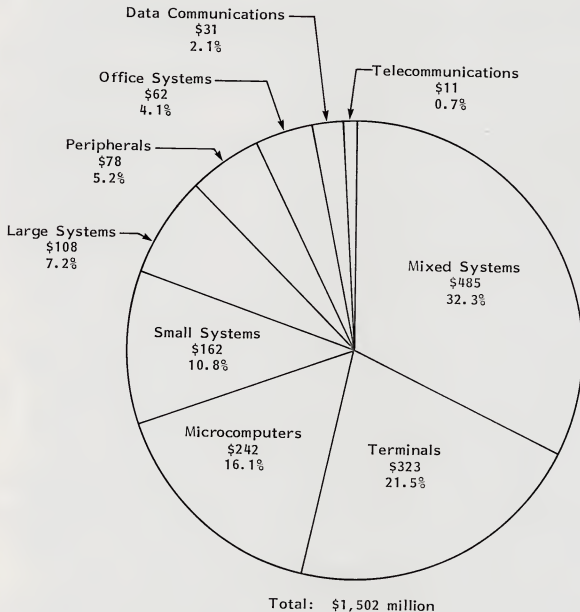
(\$ millions)



SOURCE: INPUT Users' Survey, INPUT Estimates

EXHIBIT II-6

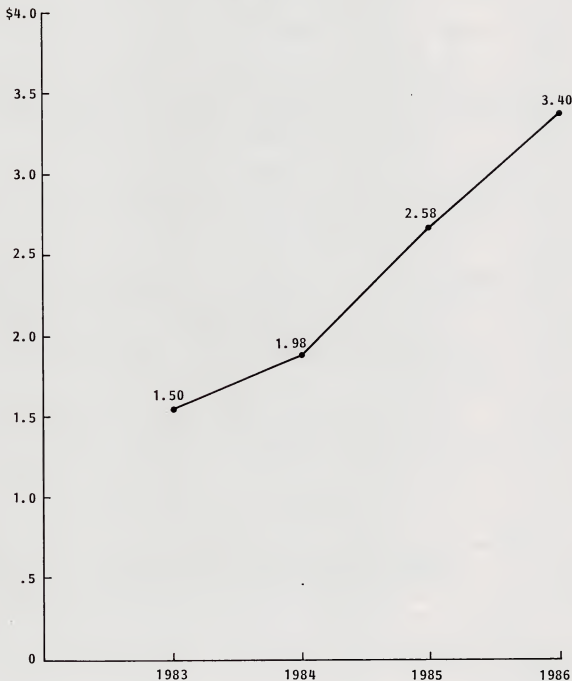
POTENTIAL WESTERN EUROPEAN THIRD-PARTY MAINTENANCE MARKET,
1983, BY PRODUCT
(\$ millions)



SOURCE: INPUT Estimates Based on User Surveys

EXHIBIT II-7

POTENTIAL WESTERN EUROPEAN THIRD-PARTY
MAINTENANCE MARKET, 1983-1986
(\$ billions)



SOURCE: INPUT Estimate Based on User Surveys

- The basis for the rate of growth is derived from the projections of TPM vendors surveyed and INPUT estimates based on other pertinent research and knowledge (e.g., U.S. TPM markets). This growth rate is conservative considering that the estimated demand for TPM is 16 times the supply.

4. CURRENT ESTIMATED MARKET SHARE - UNITED KINGDOM

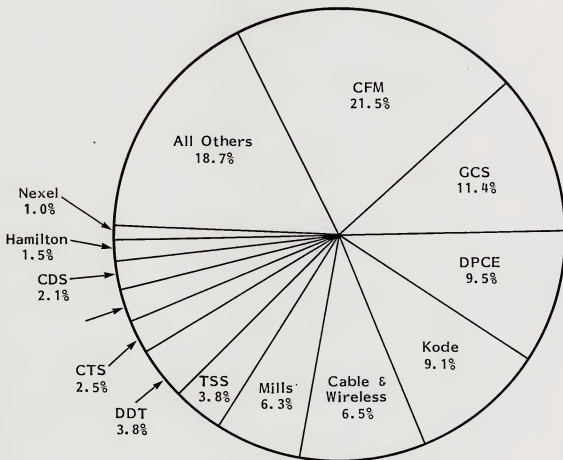
- The TPM market in the U.K. is better defined than others in Western Europe because it is better developed. This development results from a more receptive end-user base and a large supply of TPM firms as resources.
- There are nearly 100 TPM firms in Britain today. Eighty percent of this market is controlled by 13 companies, as shown in Exhibit II-8. (Market share is based on known or estimated 1982 revenue figures.)
- The total current TPM market in Great Britain is estimated at \$52.5 million. The British TPM market, in actual dollars currently spent, represents 57% of the total currently spent in Europe for TPM. This high proportion of the present market is also the result of the advanced development of the U.K. TPM market.
- The available market is \$375.5 million as expressed by vendors. Further information on the U.K. TPM market may be found in Chapter III.

5. CURRENT ESTIMATED MARKET SHARE - WEST GERMANY

- West Germany has the largest potential market in Europe for TPM, as previously noted. This market is not well defined or developed, however, because many users are unaware TPM even exists and others are reticent to use it. Consequently, the current number of TPM vendors is very small, as shown in Exhibit II-9.

EXHIBIT 11-8

TPM CURRENT ESTIMATED MARKET SHARE IN 1983
THE UNITED KINGDOM

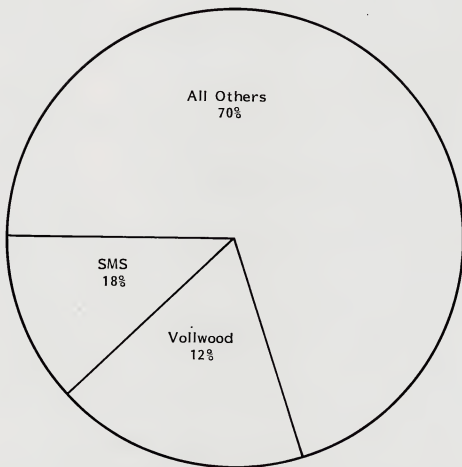


Total Current Market Value: \$52.5 Million

SOURCE: INPUT Estimates

EXHIBIT II-9

TPM CURRENT ESTIMATED MARKET SHARE IN 1983
WEST GERMANY



Total Current Market Value: \$16.6 Million

SOURCE: INPUT Estimates

- Vollwood, a local TPM vendor operating from Frankfurt, is estimated to control 12% of the existing TPM market.
- SMS, of all European TPM firms, is most aggressive in developing markets abroad.

- This may have been at the expense of developing a larger share of its home market in the U.K.

- It is estimated that SMS has ^{18% Keith Hocking 7/2-7/85} 50% of the current West German TPM market owing to its heavy concentration there of IBM systems, which are large revenue producers.

- German users reflect high satisfaction with manufacturers. They also are the only market representatives to indicate "no answer" regarding TPM. This is probably a combination of "unknown TPM" or "afraid." Further information regarding the German TPM market may be found in Chapter III.

6. CURRENT ESTIMATED MARKET SHARE - FRANCE

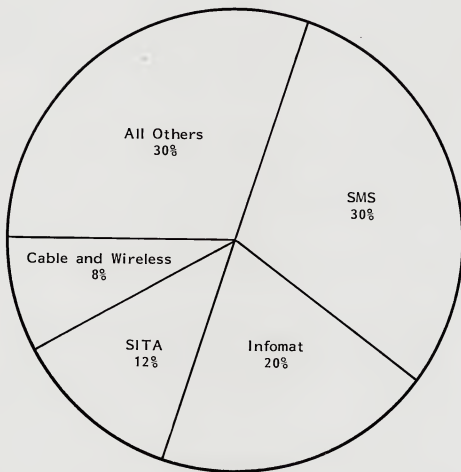
- The market for TPM in France, like West Germany, is quite large potentially but is undeveloped due to user inertia and the lack of TPM resources. Exhibit II-10 shows an estimated breakdown of the market share based on educated guesses. Further information regarding French TPM may be found in Chapter III.

7. CURRENT ESTIMATED MARKET SHARE - THE NETHERLANDS, BELGIUM, SCANDINAVIA, AND ITALY

- The TPM markets for the Netherlands, Belgium, and Scandinavia are relatively small and also undeveloped. The Netherlands and Belgium as one market have two major contenders for TPM, as shown in Exhibit II-11. Likewise, the market share for Scandinavia is dominated by only two TPM

EXHIBIT II-10

TPM CURRENT ESTIMATED MARKET SHARE IN 1983
FRANCE

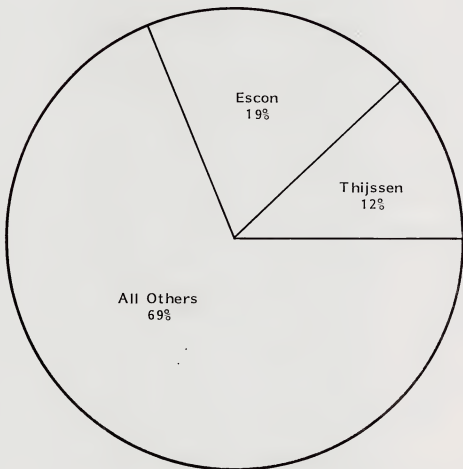


Total Current Market Value: \$9.2 Million

SOURCE: INPUT Estimates

EXHIBIT II-11

TPM CURRENT ESTIMATED MARKET SHARE IN 1983
THE NETHERLANDS AND BELGIUM



Total Current Market Value: \$6.4 Million

SOURCE: INPUT Estimates

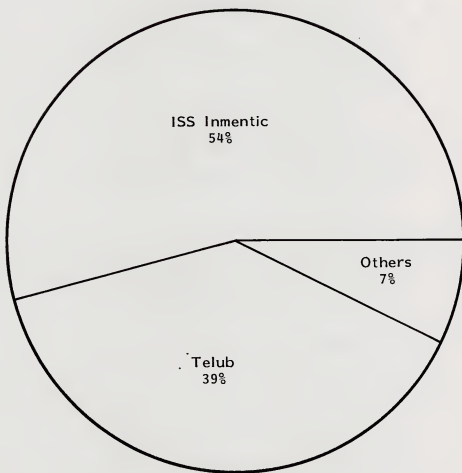
firms, as shown in Exhibit II-12. No major competitors for TPM in Italy are known well enough to estimate market share. Further information regarding these TPM markets is presented in Chapter III.

8. RATIONALE AND ASSUMPTIONS

- Because most of the markets for TPM in Europe are not well defined, the estimates for current and future markets and for market share need to be qualified. Essentially, the more developed the market, the better the information and estimates are. Regardless of the absolute figures or estimates, the statements from users and vendors alike suggest an exceptionally strong market potential for TPM in Europe.
- Major assumptions and/or rationale for deriving market share estimates by country and vendor include estimates by responding TPM firms of their market shares, revenue statistics provided by them, and INPUT estimates.
 - Estimates for current, 1983 TPM markets were based on 175 users who indicated their attitude towards TPM in six distinct responses:
 - "Satisfied with manufacturer."
 - "Afraid of TPM."
 - "TPM not known or unavailable."
 - "Interested in TPM."
 - "Currently using TPM."
 - No answer.

EXHIBIT II-12

TPM CURRENT ESTIMATED MARKET SHARE IN 1983
SCANDINAVIA



Total Current Market Value: \$2.8 Million

SOURCE: INPUT Estimates

- For sizing total TPM markets, the following were incorporated to develop the complete TPM market in Europe:
 - 100% of those "currently using TPM."
 - 100% of those "interested in TPM."
 - 50% of those "afraid of TPM."
 - 33% of those where TPM is "unknown or unavailable."
 - 0% of those "satisfied with manufacturers" and "no response."
- INPUT believes that a third of the users who do not know about TPM or think it is unavailable would, if they knew, be interested in or convert to using TPM.
- INPUT also estimates that one-half of users who are afraid of TPM would be interested or would use it if they were further educated or persuaded. Their apprehensions result from:
 - Leaving the manufacturer's first-line service.
 - Using TPM because of its unknown characteristics, creating what some feel is an unnecessary risk.
- In the 1982 Annual Report, Field Service in Europe, INPUT estimated total 1983 European field service revenues at \$5.5 billion. This value was used as the base revenue for calculating TPM markets. Proportions, as specified by respondent, were then factored as a percent of the total.
- The rationale for developing TPM market segmentation included proportionately ranking the total market for TPM in a direct relationship to user

respondents in each of the product categories. The sample of TPM vendors interviewed accounts for the following percentages of each country's market: U.K. 50%, West Germany 62%, France 70%, Scandinavia 93%, The Netherlands and Belgium 31%.

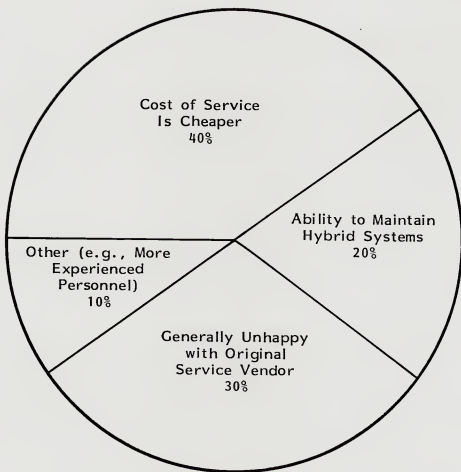
C. TRENDS AND OPPORTUNITIES

I. WHAT MAKES USERS BUY TPM?

- End users who have already switched to TPM were asked what motivated them to change. Exhibit II-13 shows that most are prompted to change because of the advantage in cost, followed by general unhappiness with the manufacturer and the ability to obtain service on mixed systems. Three basic reasons account for the user's demand for TPM.
 - Flexibility. TPM companies take into account users' unique needs more than manufacturers do. This manifests itself in such things as customized response time and bending policies to fit the customer's need.
 - Friendliness. It is a fact that closer relationships offered by TPM firms induce stronger feelings of comfort, attention, and confidence from customers. The TPM firm usually has an individual dispatcher with whom users become acquainted by telephone whereas larger vendors have a bank of dispatchers and call handlers who can be very impersonal.
 - Finances. The cost of TPM is usually lower than that offered by manufacturers, and these savings can represent substantial improvements in data processing budgets. On the other hand, even when TPM is equal to or more expensive than the manufacturer's, the added expense is justifiable to users because:

EXHIBIT II-13

MOTIVATIONS FOR USING TPM
AS CITED BY USERS



SOURCE: TPM Users

- . They can obtain service from one vendor.
- . It makes them less dependent on the manufacturer.

2. SIGNIFICANT TRENDS

- The extraordinary demand for TPM in Europe and the general lack of TPM resources will lead to an invasion or "gold rush" to establish rights in fertile markets where supplies of TPM resources don't meet the demand. A number of U.K. TPM vendors are in the process of developing their resources abroad.
 - CFM reportedly tried to establish a capability in Germany a few years ago but failed because it did not employ enough German nationals and because the timing was not right.
 - SMS is well poised to capture a larger share of continental European TPM business since it is already there.
 - American TPM firms, once they become aware of the large potential, may make their presence known as TPM competitors in Europe.
- The U.K., conversely, is saturated with TPM companies because supply outstrips demand. In fact, the number TPM companies is bound to diminish.
- There are two major shifts in vendor policies that will impact TPM markets in Europe. Control Data, in the U.S. has recently announced that it will directly compete for maintenance of IBM 370s. This was previously an industry taboo, but the move recognizes of the lucrative IBM maintenance base, many of whose users would enjoy an alternative and a means to aid an unhealthy revenue picture. There is no reason to think this type of fierce competition won't find its way to Europe. The other major shift, reportedly, is noted in DEC policies.

- According to its competitors, DEC previously discouraged its customers from buying non-DEC equipment by servicing only its own equipment.
 - Because the market for DEC-compatible equipment is enormous, TPM firms specializing in DEC as well as DEC-compatible equipment have made small fortunes.
 - Now, recognizing this and the diminutive revenue projections from service, DEC will "consider" maintenance of non-DEC equipment where it is interconnected to DEC machinery.
- Another key trend is for the more entrepreneurial TPM firms to take on service of a product they know nothing about because they can always subcontract it back to the original manufacturer without the end user's knowing it. Subcontracting is very common with TPM firms today.

3. OPPORTUNITIES IN TPM

- With a market potential the size of Europe for TPM (\$1.5 billion) the largest opportunity is in finding a niche within this market, holding onto it, and expanding it. There is an unfilled demand from users, regardless of whether or not they employ TPM, for software support, for example. Fewer than one-third of TPM vendors interviewed had any marketable software skills. Although approaching inordinate complexity when multiple software sources and applications are involved, the prudent TPM vendor will optimize his resources to fill a strong need for software assistance.
- One of the hottest prospects for TPM service, in terms of customer classification, is the computer leasing industry, which would probably enjoy an alternative to manufacturers' service. One TPM firm in Germany said that the entire collection of computer installations of the U.S. Army in Germany represented a reasonable market target.

- Finally, field service top managers and planners should consider the prospects and opportunities associated with buying or selling a TPM enterprise. Several attractive TPM firms could be wooed into mutually advantageous mergers with larger TPM companies. Conversely, there may be a few larger TPM firms willing to exchange equity for merging with smaller, stronger TPM companies.

III MARKET FORECASTS AND DATA

III MARKET FORECASTS AND DATA

- One hundred and seventy-five user interviews were obtained from Belgium, the U.K., the Netherlands, France, West Germany, Scandinavia, and Italy. Rationale and assumptions used in forecasting TPM markets are described in Chapter II of this report.

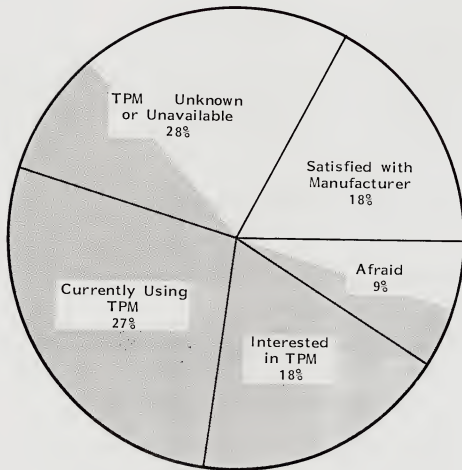
A. TPM MARKET POTENTIAL BY COUNTRY

I. BELGIUM

- Belgium represents a small undeveloped market for TPM in Europe in terms of percent of users currently using or interested in TPM. Exhibit III-1 shows that 58.5% of Belgian users are or could be TPM buyers. A high percentage, 27%, already use TPM. An additional 18% are interested.
- There are at least three reasons why the TPM market in Belgium is of interest despite its small size: being a relatively smaller geographical area, provision for service from a single or a few service points is feasible.
 - The density of equipment, also a function of the size of the country, is compact, lending itself to easier serviceability.

EXHIBIT III-1

POTENTIAL TPM MARKET - BELGIUM



TPM Potential Market 58.5% of Users

SOURCE: INPUT Estimates Based on User Data

- Reputable TPM service companies, while not native to Belgium, are established there.

2. THE UNITED KINGDOM

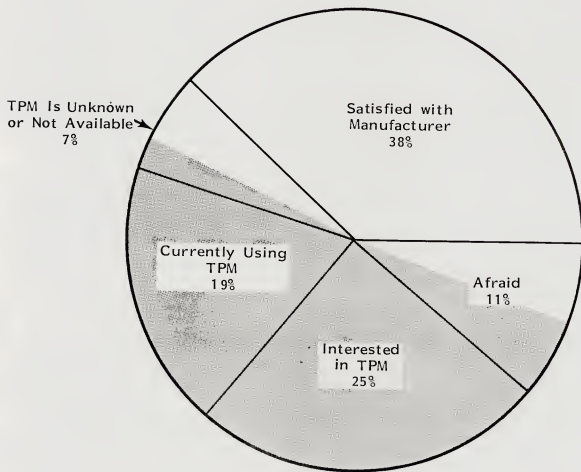
- The U.K. is also a large potential market in terms of users actively or passively interested in TPM. Exhibit III-2 shows that 51.8% of U.K. users are either using or would consider using TPM. Nineteen percent are currently using TPM, mostly for secondary maintenance, e.g., for terminals and peripherals. Additionally, 25% of U.K. users are interested in TPM.
- The relatively high user propensity towards TPM in the U.K. comes largely from the abundance of the supply. Nearly 100 TPM firms are currently doing business in the U.K. (Appendix I). Many TPM companies in Britain have worked hard at developing and promoting a highly professional image. As in other countries, data processing managers are beginning to include previously sacred maintenance budgets as potential reduction targets, and TPM stimulates this.

3. THE NETHERLANDS

- The Netherlands is also large in terms of potential users of TPM, with 43.5% actively or passively interested, as shown by Exhibit III-3. A large proportion of users, 27%, are currently using TPM for portions of their systems. Current TPM maintenance users in the Netherlands are employing it for minicomputers. Two excellent TPM firms, which seem to cooperate very well, exist in the Netherlands:
 - Thijsen Field Service, located in eastern Holland with offices elsewhere in Belgium, specializes in Digital Equipment Corporation's products.

EXHIBIT III-2

POTENTIAL TPM MARKET - UNITED KINGDOM

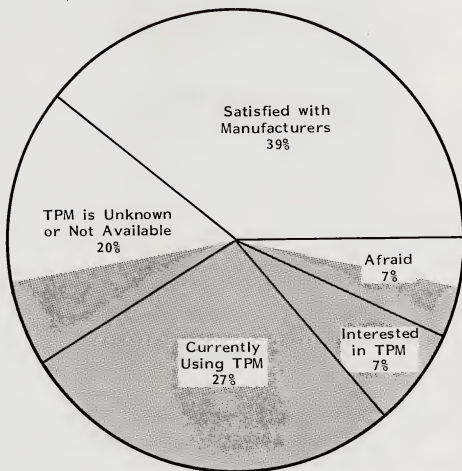


TPM Potential Market 51.8% of Users

SOURCE: INPUT Estimates Based on User Data

EXHIBIT III-3

POTENTIAL TPM MARKET - THE NETHERLANDS



■ TPM Potential Market 43.5% of Users

SOURCE: INPUT Estimates Based on User Data

- Escon, Thijssen's counterpart in Rotterdam, specializes in Data General minicomputers.

4. FRANCE

- The largest representation of satisfied users, 55%, exists in France, as indicated in Exhibit III-4. Generally, this is because the major manufacturer in France, Cii Honeywell Bull, is providing excellent service. Also, the effort involved in changing from one source of service to another, regardless of advantages, is a key factor in France.
- In spite of the high level of satisfaction with manufacturers' maintenance services, a significant number of users, 22%, express an interest in TPM. Interest is keener in medium and smaller systems. Even Cii Honeywell Bull is a target for TPM in small systems.

5. WEST GERMANY

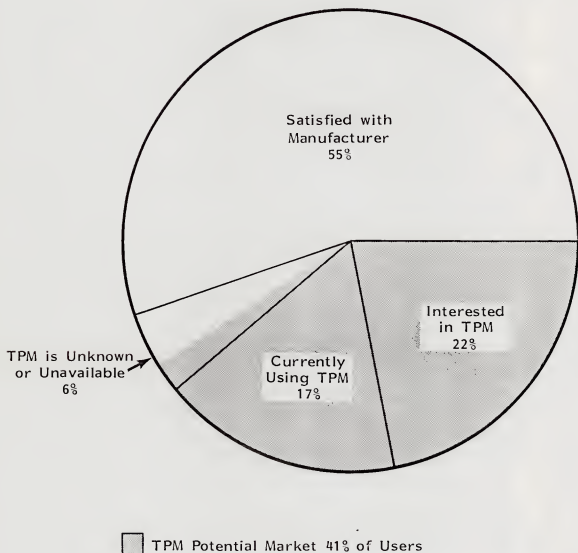
- Thirty-eight percent of users in West Germany are a potential market for TPM according to Exhibit III-5. This is a lucrative market because of the size and value of the West German computer systems market. Relatively few TPM companies have been established in West Germany, making it one of the most exciting targets for TPM in all of Europe.
- A few local TPM firms will soon feel the presence of overseas companies who are intensely eager to "get a foot in the door." American and U.K. TPM firms are examining this market closely.

6. SCANDINAVIA AND ITALY

- The potential market in the Scandinavian countries is limited to 35.5% of the users, as shown in Exhibit III-6. There is relatively low current usage and interest in TPM, 6% in each, and a very large group of users, 53%, who are

EXHIBIT III-4

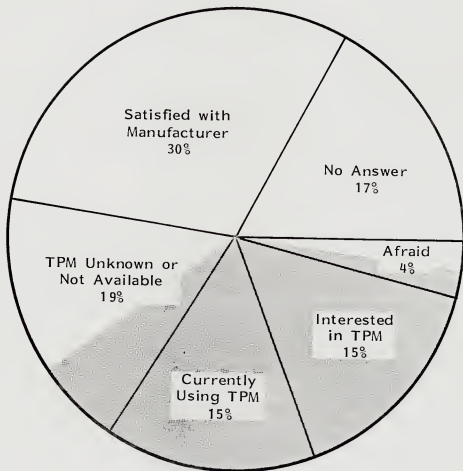
POTENTIAL TPM MARKET - FRANCE



SOURCE: INPUT Estimates Based on User Data

EXHIBIT III-5

POTENTIAL TPM MARKET - WEST GERMANY

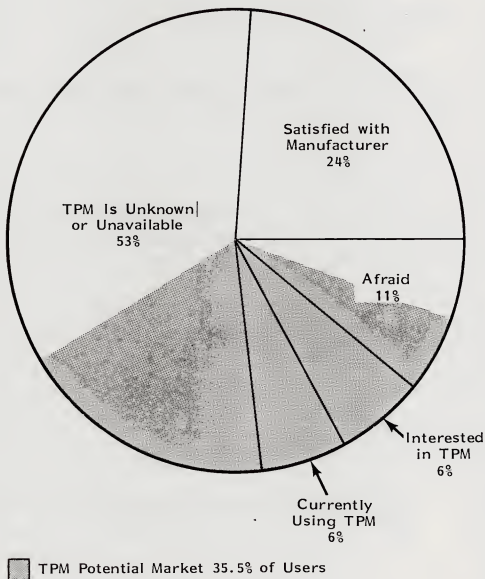


□ TPM Potential Market 38% of Users

SOURCE: INPUT Estimates Based on User Data

EXHIBIT III-6

POTENTIAL TPM MARKET - SCANDINAVIA



SOURCE: INPUT Estimates Based on User Data

unfamiliar with TPM or think it is not available. On the other hand, a relatively low portion of Scandinavian users, 24%, are satisfied with service.

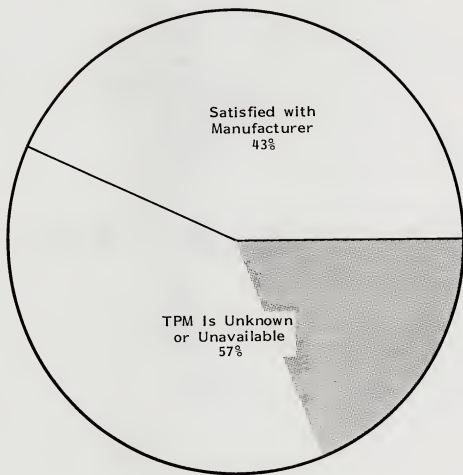
- Italy's TPM potential, 19%, is lowest of the European countries sampled, as shown in Exhibit III-7. The high percentages of users either satisfied with manufacturers' service, 43%, or who aren't aware of TPM resources, 57%, reflect, along with France, a hesitation to change from known policies and practices. Nevertheless, with proper development, marketing, and promotions, TPM in Italy could be quick to take hold.

B. TPM MARKETS BY PRODUCT CLASSIFICATION AND MANUFACTURER

- The TPM product market is described in terms of equipment classification including large systems, medium systems, small and mini systems, peripherals and terminals. "Potential TPM Market" is determined by the percent of user mentions as shown in Exhibits III-8 through III-12 categories: "unknown or unavailable TPM," "afraid of using TPM," "interested in using TPM," and "currently using TPM."
 - "No TPM Market" was determined by the percent mentions in the following categories:
 - Satisfied with manufacturer.
 - No answer.
 - The comparative positive and negative responses yield a generalized, net potential for various classes of equipment, by manufacturer, for TPM.

EXHIBIT III-7

POTENTIAL TPM MARKET - ITALY

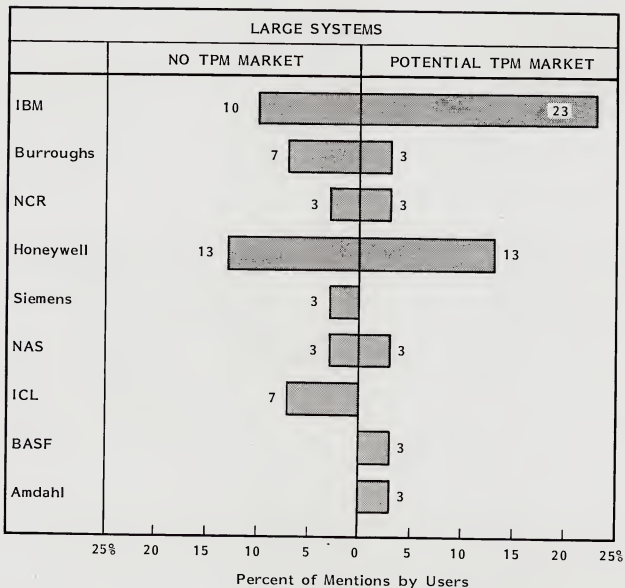


■ TPM Potential Market 19% of Users

SOURCE: INPUT Estimates Based on User Data

EXHIBIT III-8

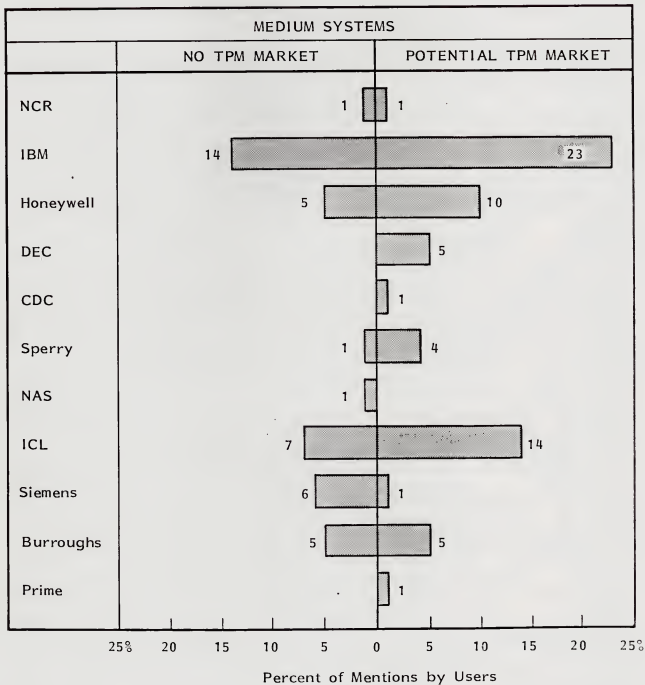
LARGE SYSTEMS
 TPM POTENTIAL MARKET IN WESTERN EUROPE
 BY MANUFACTURER



SOURCE: User Survey

EXHIBIT III-9

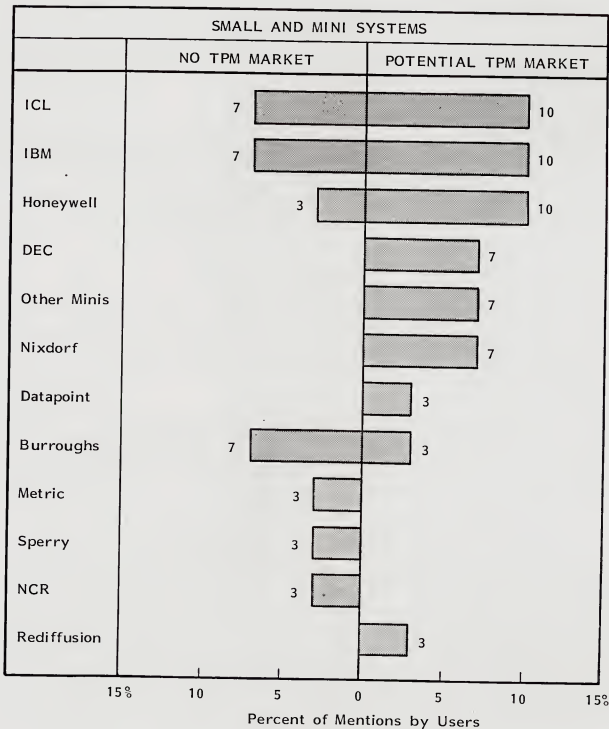
MEDIUM SYSTEMS
 TPM POTENTIAL MARKET IN WESTERN EUROPE
 BY MANUFACTURER



SOURCE: User Data

EXHIBIT III-10

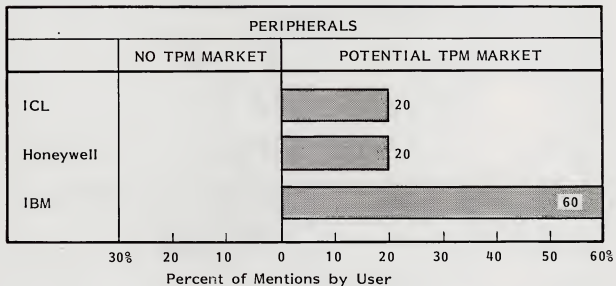
SMALL AND MINI SYSTEMS
 TPM POTENTIAL MARKET IN WESTERN EUROPE
 BY MANUFACTURER



SOURCE: User Data

EXHIBIT III-11

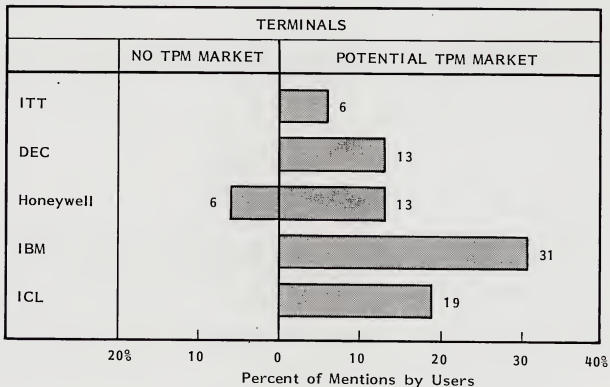
PERIPHERALS
 TPM POTENTIAL MARKET IN WESTERN EUROPE
 BY MANUFACTURER



SOURCE: User Data

EXHIBIT III-12

TERMINALS
 TPM POTENTIAL MARKET IN WESTERN EUROPE
 BY MANUFACTURER



SOURCE: User Data

1. LARGE SYSTEMS

- Exhibit III-8 shows that IBM large systems are a primary target for TPM in Europe. While 10% of the mentions precluded TPM for IBM large systems, 23% were positive. Thirteen percent, net, of IBM large systems users mentions are positive toward TPM. Two other large systems manufacturers, BASF and Amdahl, are potential TPM targets.
- Three large systems manufacturers, NCR, Honeywell, and NAS, have an equal percent of mentions for and against TPM. Burroughs and ICL large systems are not currently prospects for TPM.

2. MEDIUM SYSTEMS

- Medium systems represent a good TPM market target, as shown in Exhibit III-9, for the following equipment, by manufacturer: IBM, Honeywell, Digital Equipment, Control Data, Sperry, ICL, and Prime. Medium systems that users indicate are not candidates for TPM include NCR, NAS, Siemens, and Burroughs.

3. SMALL AND MINI SYSTEMS

- Exhibit III-10 shows the relative potential for small and mini systems. Good candidates for TPM include ICL, IBM, Honeywell, Digital Equipment, Nixdorf, Datapoint, and Rediffusion.
- Noncandidates for small and mini systems are Burroughs, Metric, Sperry, and NCR.

4. PERIPHERALS AND TERMINALS

- The peripherals and terminals markets are very favorable market targets for TPM, as indicated in Exhibits III-11 and III-12. IBM and ICL peripherals and terminals are particularly vulnerable to TPM.

C. ANALYSIS OF EUROPEAN TPM MARKETS - HIGHLIGHTS

- TPM market segments are further defined in Exhibits III-13 through III-18, where potential TPM is indicated by product classification and manufacturer within each country. Relative strengths of the TPM market, by country, were determined in terms of users' loyalties to manufacturers' service and their knowledge (or lack thereof) of TPM resources.

- I. STRONG MARKETS: BELGIUM, THE UNITED KINGDOM, AND GERMANY

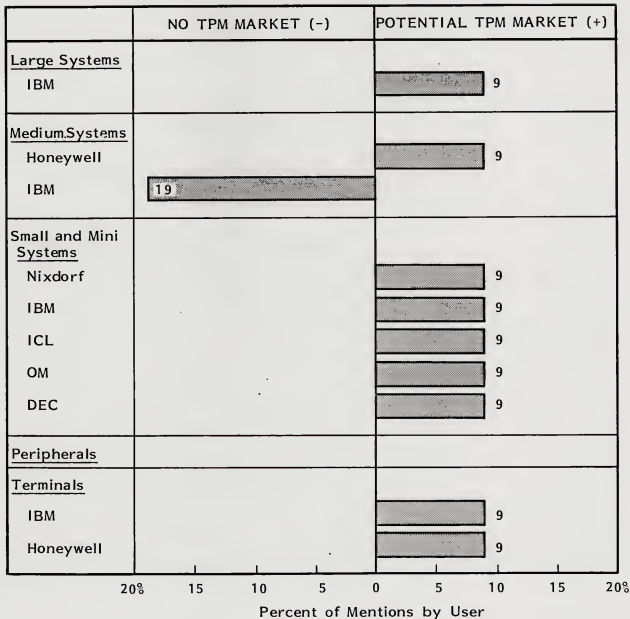
- Belgian TPM market highlights, shown in Exhibit III-13, indicate TPM interest in all product classifications. IBM (except in medium systems), Honeywell, Nixdorf, and Digital Equipment Corporation are possible targets.

- U.K. TPM market highlights include a variety of potential systems and manufacturers' markets, as shown in Exhibit III-14. The most interest is in medium systems with the following manufacturers as TPM targets: ICL, IBM, Honeywell, and Digital Equipment Corporation.
 - Interest in large systems TPM includes IBM, Amdahl, Blater, and Honeywell.
 - Small systems and mini equipment that are potential TPM markets are Rediffusion, IBM, and ICL.
 - Peripheral and terminal segments for TPM include Digital Equipment Corporation, IBM, and ICL.

- West German TPM market highlights are indicated in Exhibit III-15. The best prospects for TPM are IBM medium systems users.

EXHIBIT III-13

TPM POTENTIAL MARKET HIGHLIGHTS IN BELGIUM
BY MANUFACTURER



SOURCE: User Data

EXHIBIT III-14
 TPM POTENTIAL MARKET HIGHLIGHTS IN THE UNITED KINGDOM
 BY MANUFACTURER

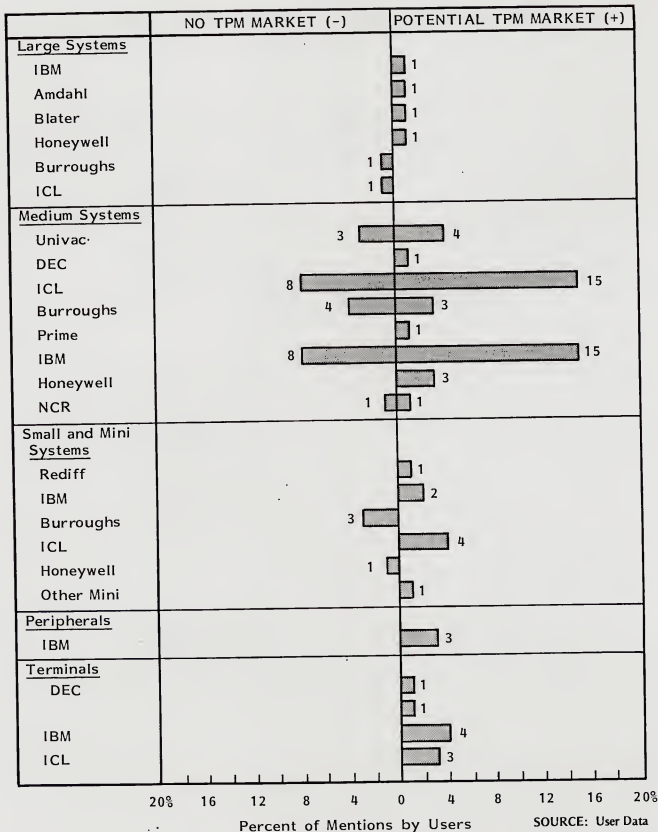
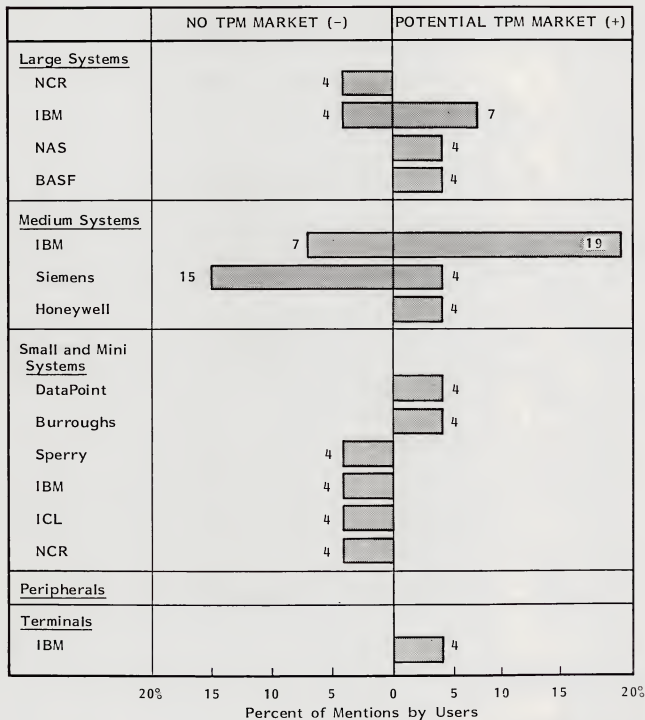


EXHIBIT III-15

TPM POTENTIAL MARKET HIGHLIGHTS IN WEST GERMANY
BY MANUFACTURER



SOURCE: User Data

- Next best prospects are:
 - . IBM, NAS, and BASF large systems users.
 - . Honeywell and IBM medium systems users.
 - . Datapoint and Burroughs small systems users.
 - . IBM terminals.

2. MEDIUM MARKETS: THE NETHERLANDS AND FRANCE

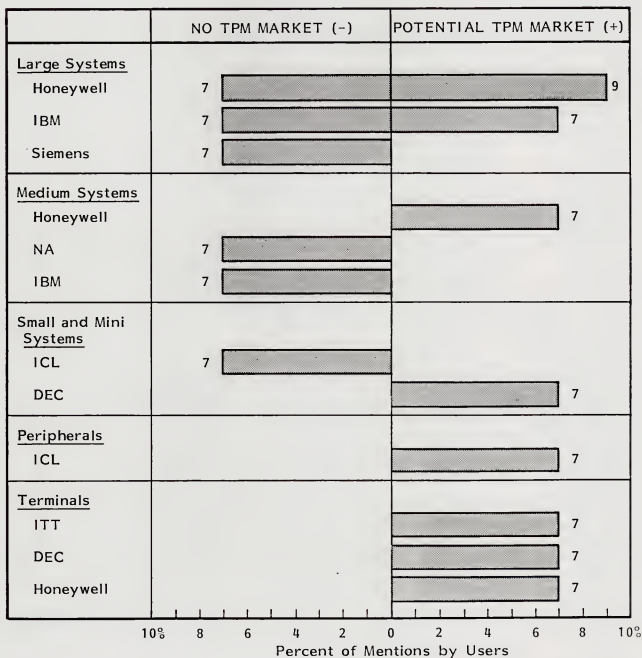
- Equipment in the Netherlands showing good potential for TPM includes Honeywell large and medium systems, Digital Equipment mini systems, and ICL, ITT, Digital, and Honeywell peripherals and terminals, as indicated by Exhibit III-16.
- French TPM characteristics, shown in Exhibit III-17, indicate good prospects for IBM and ICL medium systems. Honeywell small systems and IBM peripherals and terminals are also targets.

3. WEAKER OR UNKNOWN MARKETS: ITALY AND SCANDINAVIA

- Honeywell large systems and peripherals and IBM medium systems are potential market targets for TPM in Italy as indicated in Exhibit III-18. The highlights of the Scandinavian TPM market are shown in Exhibit III-19.
 - TPM markets exist in large systems for NCR.
 - Markets in medium systems include IBM, Honeywell, Digital Equipment, Control Data, and Sperry.

EXHIBIT III-16

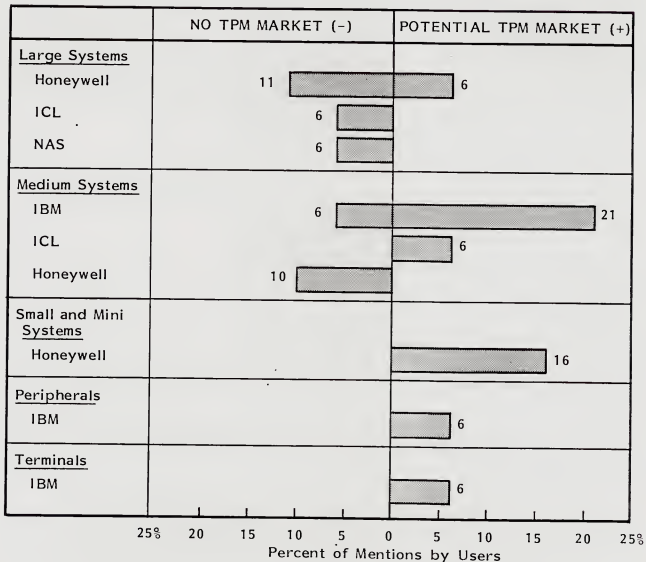
TPM POTENTIAL MARKET HIGHLIGHTS IN THE NETHERLANDS
BY MANUFACTURER



SOURCE: User Data

EXHIBIT III-17

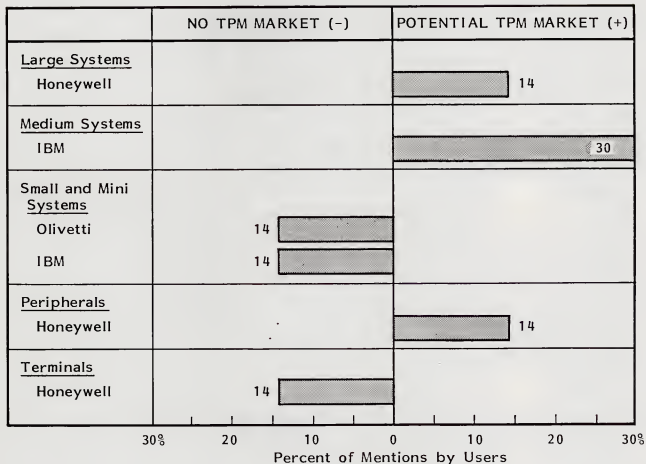
TPM POTENTIAL MARKET HIGHLIGHTS IN FRANCE
BY MANUFACTURER



SOURCE: User Data

EXHIBIT III-18

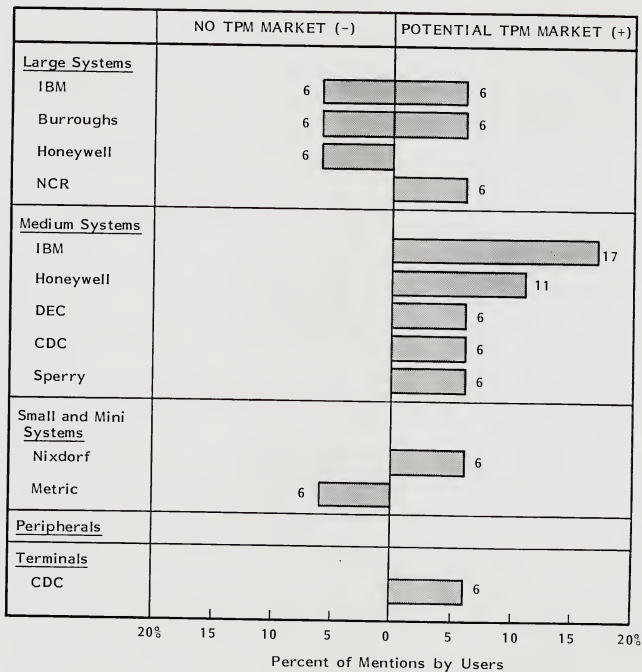
TPM POTENTIAL MARKET HIGHLIGHTS IN ITALY
BY MANUFACTURER



SOURCE: User Data

EXHIBIT III-19

TPM POTENTIAL MARKET HIGHLIGHTS IN SCANDINAVIA
BY MANUFACTURER



SOURCE: User Data

- Small systems and terminals TPM potential is shown in Nixdorf and Control Data equipment respectively.

D. USER ATTITUDES ABOUT TPM

1. PROFILE OF TYPICAL TPM USERS

- The typical user of TPM is described in Exhibit III-20. The usual TPM subscriber is a services company that characteristically produces over \$10 million in annual turnover. The typical user has also been using TPM for two and one half years and normally benefits from an 18.8% discount on the price of service compared to the manufacturer's price.
- Motivations for using TPM, as discussed in Chapter II, include cost of service, general unhappiness with original service vendors, TPM firms' ability to service hybrid systems, and more experienced personnel.

2. ADVANTAGES AND RATINGS OF TPM BY USERS

- Advantages of TPM, quoting current users, are shown in Exhibit III-21. Reduced cost is an advantage of as well as a motivator for TPM, as is having a single source for maintenance on hybrid systems. Equally important is the greater flexibility of TPM in terms of:
 - The TPM firm having "no axe to grind," that is, being independent of a marketing loyalty.
 - Knowing that virtually any add-on equipment, regardless of type or manufacturer, will be maintained by the TPM firm.

EXHIBIT III-20

PROFILE OF TYPICAL TPM USERS

Type of Company:	Services
Annual Turnover:	Greater than \$10 million
Length of Time Using TPM:	2.5 Years
Average Reduction in Cost of TPM:	18.8% (from manufacturer's price)

SOURCE: TPM Users

EXHIBIT III-21

ADVANTAGES OF TPM CITED BY TPM USERS

"Reduced costs."

"No marketing royalties."

"Close contact."

"Advice on purchases."

"Fewer problems."

"Will service any make of equipment
thus allowing user to shop around
for add-on equipment."

"Experience of personnel."

"Backup resources."

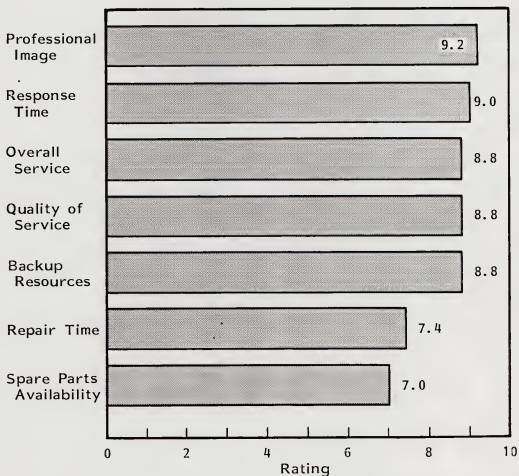
"Single maintenance service for
hybrid system."

SOURCE: TPM Users

- Service parameters of TPM companies were rated very highly, in general, as shown by Exhibit III-22. Professional image received the highest average rating, 9.2, on a scale of 1 to 10 where 10 is superior.

EXHIBIT III-22

USERS' RATINGS OF THEIR CURRENT TPM SERVICE
(Average Scores)



SOURCE: TPM Users

Scale: 1 = Unacceptable, 10 = Superior

IV TPM VENDOR INFORMATION

IV TPM VENDOR INFORMATION

A. COMPANY INFORMATION

1. LENGTH OF TIME IN BUSINESS

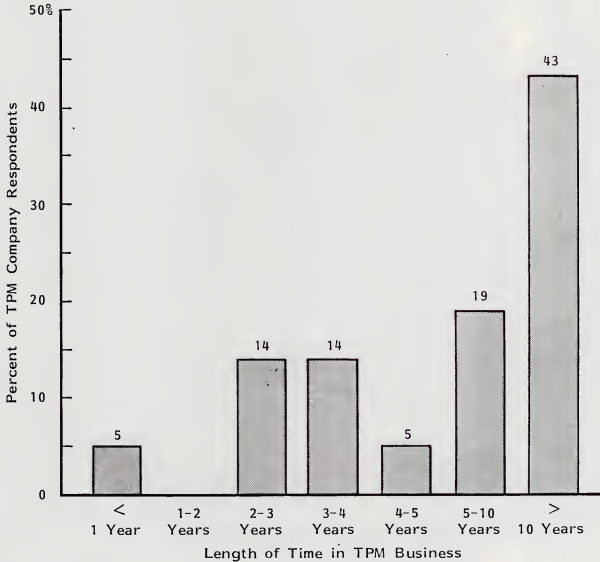
- Sixty-two percent of TPM firms have been in business five years or longer, as shown in Exhibit IV-1. The average length of business life for TPM firms is 7.2 years. Only 5% of the firms in the sample have been in business for less than one year.
- It should be noted that these figures represent the more stabilized and major competitors in the marketplace. A number of small firms come and go within the TPM industry. There are more new entrants than unsuccessful dropouts. Therefore the total population of TPM firms, including small, new entrants and stabilized major competitors, would reduce the average term of business life to less than 7.2 years.

2. ANNUAL TURNOVER

- The average annual revenue turnover for TPM firms is \$1.2 million, as shown in Exhibit IV-2. This figure, like the one representing average length of time in business, is skewed towards the more stable and major competitor in the TPM market, resulting in a higher average than that expected from a larger sample including less serious contenders in the TPM market.

EXHIBIT IV-1

LENGTH OF TIME IN TPM BUSINESS

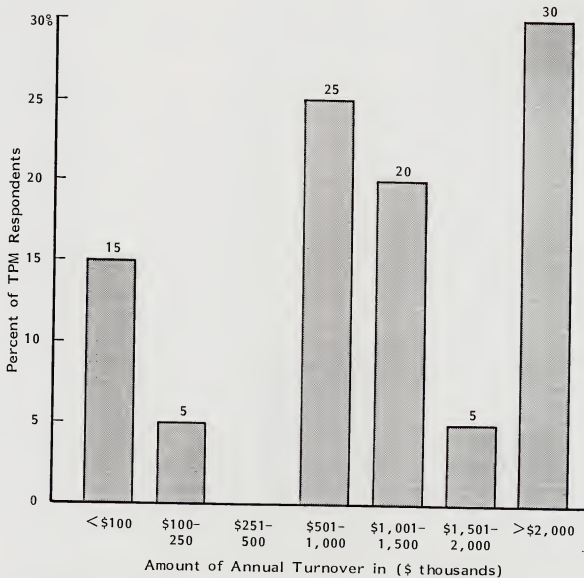


Average: 7.2 Years

SOURCE: TPM Vendor Data

EXHIBIT IV-2

TPM ANNUAL TURNOVER



Average: \$1,170,000

SOURCE: TPM Vendor Data

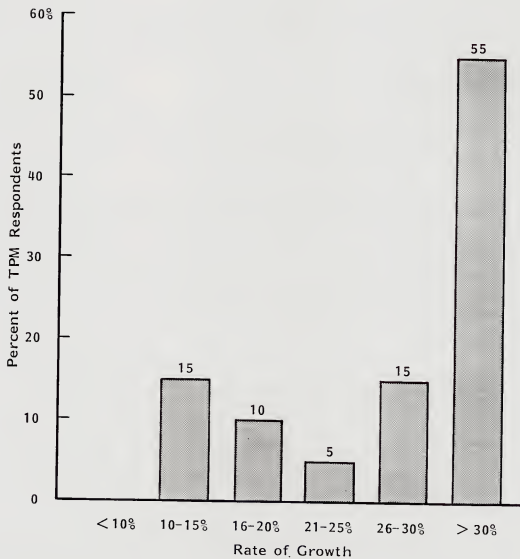
- Thirty percent of TPM vendors produce over \$2 million dollars in revenue annually. The majority, 80%, produce over half a million dollars per year from TPM. INPUT estimates seven TPM firms in Europe turn over more than \$3 million per annum.
- In general, comparing average revenue turnover with length of time in business, TPM sales are lower than should be expected.

3. GROWTH RATE

- The market potential, in terms of demand from users, suggests a huge potential, as previously discussed. TPM vendors agree.
- Collectively, TPM vendors agree that the average rate of growth, per year, for TPM is 32.1%, as shown in Exhibit IV-3. Fifty-five percent of TPM vendors believe that the growth rate of TPM business will be over 30% per year for the next three years. This means that the average TPM firm, by the end of 1986, should be turning over \$2.6 million based on today's average of \$1.2 million.
- The most pessimistic forecasters indicated a minimum growth rate of 10%. No one believes it will be less than 10% per year for the next three years.
 - The low forecasters are generally those TPM firms who are saturated with TPM business and who, therefore, can afford to be selective in choosing their customers.
 - According to TPM vendors the dynamic growth rate of TPM is attributed to:
 - "Selling, market acceptance."

EXHIBIT IV-3

TPM ANNUAL GROWTH RATE FOR NEXT THREE YEARS



Average: 32.1%

SOURCE: TPM Vendor Data

- "Filling a need: plug-compatible product service, flexibility, acting as an independent (hardware) advisor, price."
- "Cost-effective service on mixed systems."
- "Using the old adage 'the customer is always right.'"
- "Reputation, good performance to price ratio."
- "Aggressive marketing."
- "Microcomputers."
- "Increasing market size - more aggressive marketing."
- "Choosing quality products, high-volume products."
- "Rapid installation of microcomputer systems comprising a variety of configurations and manufacturers."
- "Growth of existing base and further penetration of U.S. micros in Europe."
- "End users want to have only one contact for their maintenance."
- "Good market and customers' aggression against manufacturers (DEC)."
- "Market growth, TPM's cost effectiveness, and flexibility."
- "Bigger market and high cost of engineering."

4. AREAS SERVICED

- Areas serviced by respondent TPM companies are noted in Exhibit IV-4. The U.K. is well serviced. Thirty-eight percent of U.K. TPM companies are already doing business in other European countries. This percentage is expected to increase quickly because established TPM firms in the U.K. see fruitful opportunities abroad.
- One U.K. TPM firm does custom service work "anywhere in the world" and, in fact, has worked in China, South America, and Canada.
- Seventy to eighty percent of the French TPM market is within 100 kilometres of Paris, according to one respondent.

5. PRODUCTS SERVICED

- Products serviced by TPM companies are shown in Exhibit IV-5. In order of the percentage of companies providing services, products maintained are:
 - Peripherals (90%).
 - Terminals and mixed systems (81% each).
 - Small systems and personal computers (76% each).
 - Data communications systems (52% - relatively high because of increasing demands for network service).
 - Office systems and large systems (43% each).
 - Telecommunications systems (19%).

EXHIBIT IV-4

AREAS SERVICED BY TPM COMPANIES

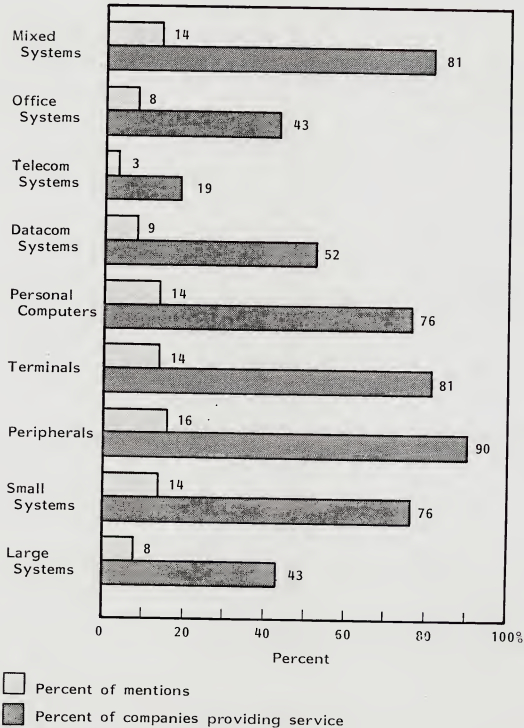
	BELGIUM	FRANCE	SCANDINAVIA	IRELAND	ITALY	HOLLAND	GERMANY	UK
UK								
TSS								x
Hamilton								x
Mainstay		x		x		x	x	x
DPCE						x		x
Telefile							x	x
SMS	x	x			x		x	x
Computer Terminal Systems								x
CFM								x
Cable and Wireless								x
DDT Maintenance				x				x
Q-COM								x
Byte Shop								x
GCS								x
Data Logic			x	x				x
Nexel								x
CDS								x
TE Data Care								x
GERMANY								
Vollwood	x					x	x	
FRANCE								
ITS		x		x	x	x	x	x
Infomat		x						
HOLLAND								
Thijssen	x					x	x	
Escon	x					x	x	
SCANDINAVIA								
Telub			x					
ISS Inmentic			* x					

*Denmark

SOURCE: TPM Vendor Data

EXHIBIT IV-5

PRODUCTS SERVICED BY TPM COMPANIES



SOURCE: TPM Vendor Data

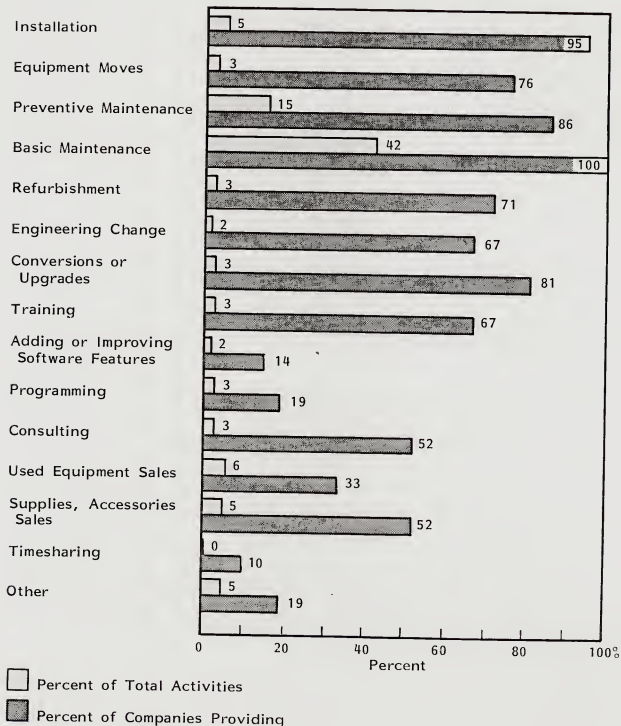
- As percentages of mentions, types of products maintained by TPM companies are generally equally balanced.
 - Mixed systems, personal computers terminals, and small systems all had an equal number of mentions (14% each). Peripherals received the highest percentage of mentions, 16% of total mentions.
 - Fewest mentions included:
 - Data communication systems (9%).
 - Large and office systems (8% each).
 - Telecommunications systems (3%).
- Some TPM firms indicate that they will maintain devices which, in fact, they subcontract for service to either the manufacturer or another TPM firm.

6. SERVICES PROVIDED

- Exhibit IV-6 breaks down the types of services provided by TPM firms both by the percent of companies providing them and the percent of activity. Only 14% of TPM vendors are now or are considering doing software maintenance.
- As a percent of total service activities, there is fairly equal distribution. Two understandable exceptions are basic maintenance and preventive maintenance at 42% and 15% of all mentions. Other types of services offered, in order of percent of mentions, include: used equipment sales (6%); installation, supplies and accessories sales, and other services (5% each); consulting, programming, training for a fee, conversions or upgrades, refurbishment, and equipment moves (3% each); and adding or improving software (2% each).

EXHIBIT IV-6

TYPES OF SERVICES PROVIDED BY TPM COMPANIES



- Of interest is the fact that all TPM firms provide some services besides the fundamental ones, basic and preventive maintenance and installation. This is due to both opportunity and necessity. Opportunities for TPM are discussed later. The need to provide other than fundamental services is a financial one. One of the most logical diversifications is trading equipment previously owned by TPM users, which would explain the relatively high percent of activity.

- "Other" services provided by TPM companies include maintenance of security devices, instrumentation and tape cleaners, spare parts sales, insurance coverage for loss or damage to equipment, and a variety of specialized consulting services. Consulting services include a number of advisory services involving the customer's purchase of new equipment.
 - Product evaluations are performed by some TPM firms.

 - Site surveys and installation planning are included as marketable "products" by some TPM firms.

 - One TPM company offers a technical support backup service, on a retainer, for a customer who does his own maintenance.

 - Another firm provides a total, turnkey systems integration business including:
 - Data processing systems design.

 - Recruitment of hardware and software engineering personnel.

 - Construction (site) management.

 - Facilities management.

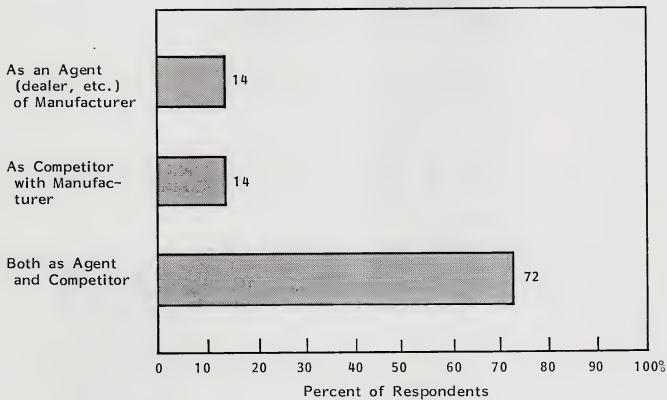
- This firm has successfully won some very competitive contracts because others "failed to understand the importance of field engineering as it relates to total integrated turnkey systems."

7. GENERAL

- Seventy-two percent of TPM companies provide service as an agent of a particular manufacturer as well as a competitor to those or other manufacturers, as shown in Exhibit IV-7. In most cases these TPM firms act as agent or dealer for a number of manufacturers and only compete against a single manufacturer, such as Digital Equipment, Data General, and Honeywell (Xerox equipment).
- Ninety-four percent of respondent TPM firms said that when they operated as agent or dealer customers perceived them as a separate TPM company, not as the manufacturer.
- Exhibit IV-8 shows that 81% of service performed by TPM firms is on a contracted basis, while 19% is performed on an ad hoc or time-and-materials basis. One TPM firm, as a matter of policy, will not provide preventive maintenance on an ad hoc basis in an effort to persuade customers to use contract service.
- More specific information regarding types of equipment by manufacturer that is maintained by each TPM company and the specific geographic locations of each was purposely omitted from this report because of the volume it would add. For example, one firm provides service for over 130 different manufacturers. For further information, contact the individual companies listed in Appendix A.
- As an indication of market penetration by existing TPM vendors, respondents indicated that an average of 69% of users of TPM use one TPM firm exclusively.

EXHIBIT IV-7

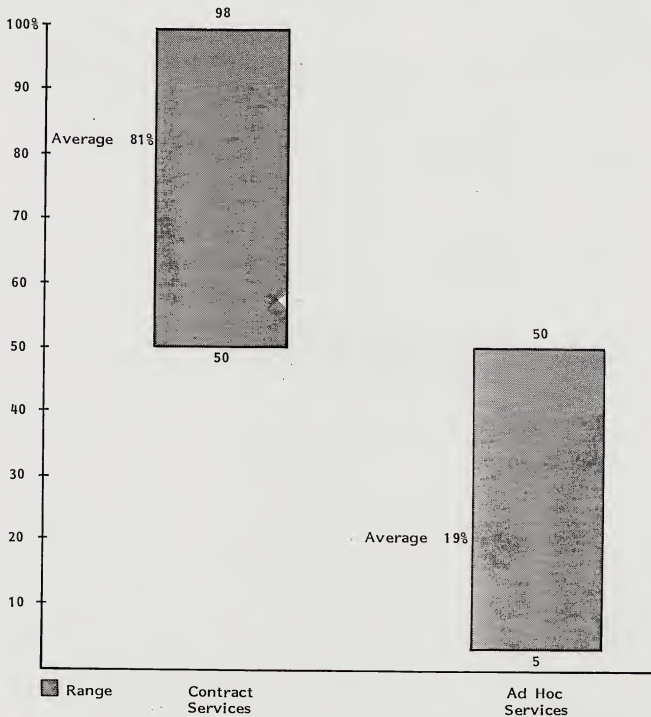
METHOD OF PROVIDING TPM SERVICE



SOURCE: TPM Vendor Data

EXHIBIT IV-8

CONTRACT SERVICE VERSUS AD HOC SERVICE



B. OPERATIONS

1. NUMBER OF EMPLOYEES

- The typical TPM company has 96 employees, as shown in Exhibit IV-9. Each firm has an average of 77 field engineers, backed up by an average of 12 field support specialists. There are an average of 15 administrative personnel including clerks and secretaries. An average of 7 managers, or about 1 for every 14 employees, operate TPM companies. Exhibit IV-10 provides a distributive breakdown of employees by types and numbers.

2. WARRANTY SERVICE

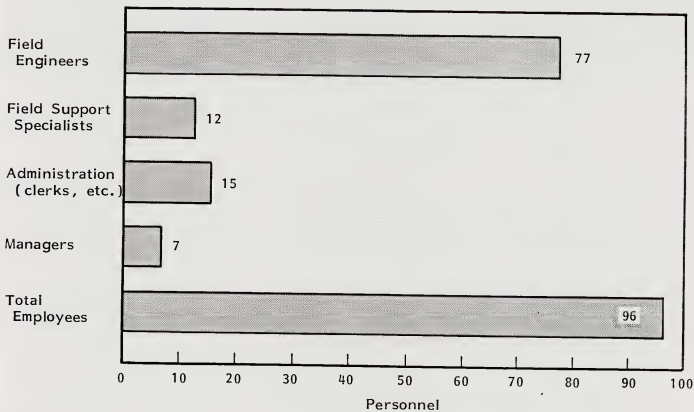
- Seventeen respondents out of 23, or 75%, said that they provided warranty service for the manufacturers they represent. Generally, warranty service is not very, if at all, profitable and is considered a nuisance for TPM firms.
- Various means exist for manufacturers to compensate TPM companies for warranty work. The most common method is to pay the TPM firm a fixed rate for each type of repair and to provide the parts free.
 - One TPM firm receives from the manufacturer, in return for its own warranty expense, a combination of free advertising, free spare parts, and free service aids.

3. STANDARD RESPONSE TIMES

- While respondents indicated an average overall standard response time of 7.9 hours, as shown in Exhibit IV-11, there were several comments and variables noted. The response time is measured in the hours, including travel time, it

EXHIBIT IV-9

AVERAGE NUMBER OF PERSONNEL IN TPM COMPANIES

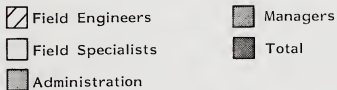
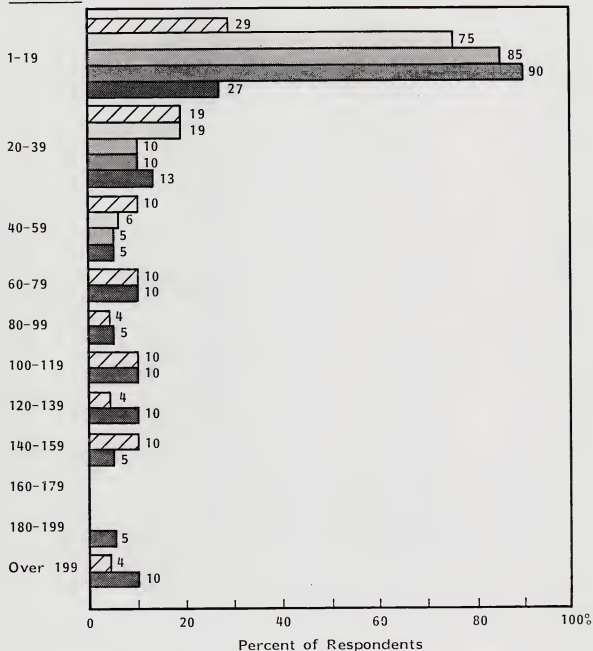


SOURCE: TPM Vendor Data

EXHIBIT IV-10

TPM COMPANY PERSONNEL

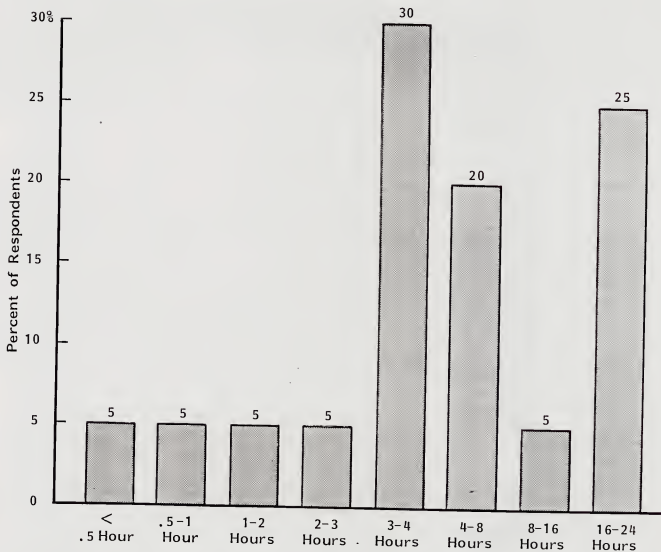
Number of Personnel



SOURCE: TPM Vendor Data

EXHIBIT IV-11

STANDARD RESPONSE TIMES



Average: 7.9 Hours

SOURCE: TPM Vendor Data

takes for an engineer to arrive on site from the time the call was placed. These response times are provided during normal working hours: usually 8 a.m. to 6 p.m. Mondays through Fridays excluding holidays.

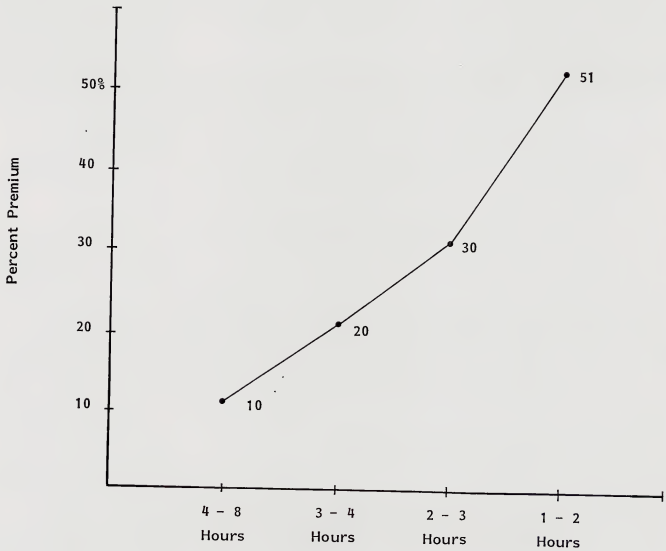
- Response times vary in terms of types of equipment, types of contracts, distance between the point where service is required, and the location of the nearest service center. Popular response time options are 2, 4, 8, 24, and 48 hours.
 - Some TPM firms refuse to guarantee a response time.
 - Variations by types of systems are also common, for example:
 - Large systems - two hours.
 - Small systems - four hours.
 - Micros and terminals - eight hours.
- A common understanding among TPM firms is that a 24-hour response time equates to the next day's working shift. Some TPM companies indicate that they have no such thing as a standard response time. "It's whatever the customer wants."

4. PREMIUM RESPONSE TIMES

- Normal premiums for accelerated response are shown in Exhibit IV-12. Premiums are expressed as a percentage added to basic monthly maintenance charges. The average premium for four- to eight-hour response is 10%.
- Fifty-one percent premiums, on average, are charged for faster response, one to two hours. One TPM vendor stated, "IBM doesn't charge for response time premiums; therefore we don't either." Another TPM firm automatically

EXHIBIT IV-12

NORMAL PREMIUM FOR ACCELERATED RESPONSE



SOURCE: TPM Vendor Data

improves response time, at no additional charge, when the value of maintenance at a single location exceeds \$3,200 per year.

5. REPAIR TIME

- The average time it takes a TPM company to make a repair is three and one-half hours. Average repair times, as average response times, are extremely variable depending on the type of equipment and type of service provided.
 - As board swapping increases, repair times tend to be reduced. On-site repair time then becomes diagnostic time plus board exchange time. Actual repairs are performed offsite in the vendor's repair facility.
 - Techniques for providing remote diagnostics and assembly line repair functions have also helped to reduce repair time.
- Longer repair times continue for products such as Winchester disks, which require expensive clean rooms and test equipment. Actual repair time becomes a somewhat questionable statistic. A better statistic is repair turn-around time which considers fixing the unit, idle time, and shipping time to and from the repair facility.

6. EXTRA SHIFT COVERAGE

- Only 5 TPM vendors out of 23 (22%) offer extra shift coverages. Extra shift coverage is that maintenance required outside the normal working period. Normal hours are between 8 a.m. and 6 p.m., Mondays through Fridays, excluding holidays. Extra shift periods are Saturdays, Sundays, holidays, and second and third shifts.
- Those TPM vendor firms that do provide extra shift service do so, generally, on a special quotation basis and because of the aim to provide "whatever the customer wants." They resist extra shift coverage because of the excessive costs (i.e., paying engineers overtime) of providing it.

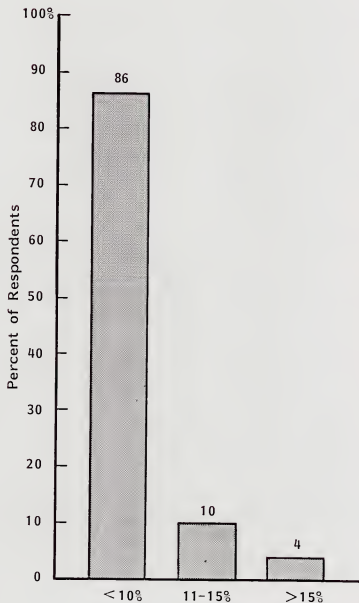
C. RESOURCES

I. FIELD ENGINEERS

- The number of field engineers, as discussed in the previous section, Operations, averages 77 for respondent TPM firms. The principal sources for obtaining qualified engineers include technical or military schools and other companies who have already trained them. Other sources include school leavers (raw recruits) and other in-house departments, such as manufacturing. (One TPM company said it had to retrain engineers coming from IBM because of the stereotyped, large-company "habits" developed.)
- The biggest problem for TPM firms is hiring qualified engineers. Demand outstrips supply by three to two, according to a large U.K. TPM firm.
 - TPM firms tend to hire the highest levels of engineers, eventually making them useful in several areas rather than making them specialists.
 - Because of high unemployment, overqualified applicants are seeking computer engineering jobs. In one TPM company, for example, an individual with a PhD in biology is working as a programmer.
- The attrition rate of field engineers is low. Eighty-three percent of respondent TPM companies indicated that attrition of engineers is less than 10% per year, as shown in Exhibit IV-13. The low rate is attributed to good pay.
 - Fifty-three percent of respondent TPM firms pay their engineers a salary between \$11,000 and \$15,000 annually, as indicated in Exhibit IV-14. Thirty-six percent of TPM firms pay their engineers \$16,000 per

EXHIBIT IV-13

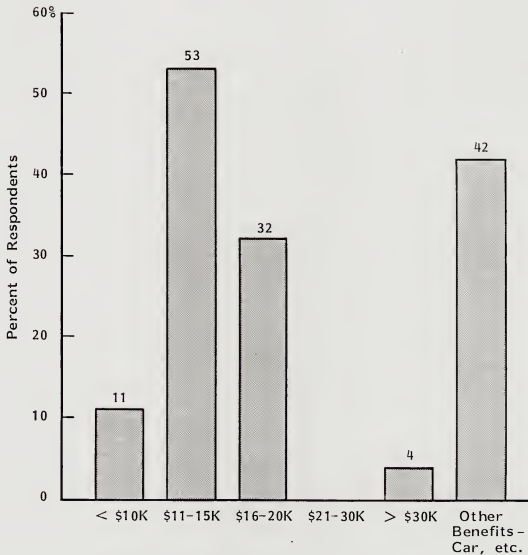
ATTRITION RATE OF FIELD ENGINEERS



SOURCE: TPM Vendor Data

EXHIBIT IV-14

TPM FIELD ENGINEERS' COMPENSATION



SOURCE: TPM Vendor Data

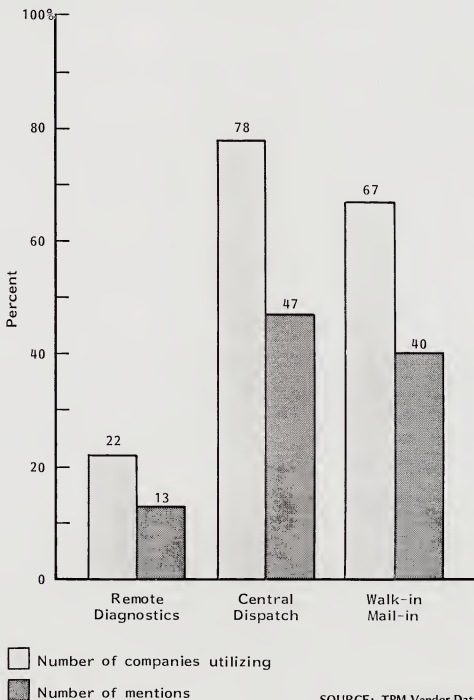
year or more. Forty-two percent provide extra benefits such as cars, social security, etc.

- Other reasons for the low rate of engineer attrition include:
 - "Good company spirit, fast growth, opportunity to work on new equipment."
 - "Minimum bureaucracy - maximum company support."
 - "Pride, job satisfaction."
 - "Chance to work in a developing company, a high level of opportunity, diversified jobs with rewarding benefits."
 - "Engineers share a lot of influence. Company doesn't accept contracts without engineer approval. Engineers have status."

2. TECHNIQUES

- Newer service techniques include the use of remote diagnostics, central dispatch, and walk-in or mail-in repair depots, as shown in Exhibit IV-15. Seventy-eight percent of respondent TPM firms use central dispatch. Those who do not use decentralized dispatch because it provides a local rapport and, as such, helps generate new business.
- A small number of TPM companies use remote diagnostics, primarily because they haven't had time to develop the technique and because of the capital required for new test equipment. Sixty-seven percent of TPM vendors indicated that walk-in or mail-in repair depots were included in their resources. However, one English respondent said, "The British mind is less amenable to change. Walk-in service is resisted by customers because it is a change, despite the savings."

EXHIBIT IV-15
TPM COMPANIES' USE OF
REMOTE DIAGNOSTICS, CENTRAL DISPATCH, AND REPAIR CENTRES



SOURCE: TPM Vendor Data

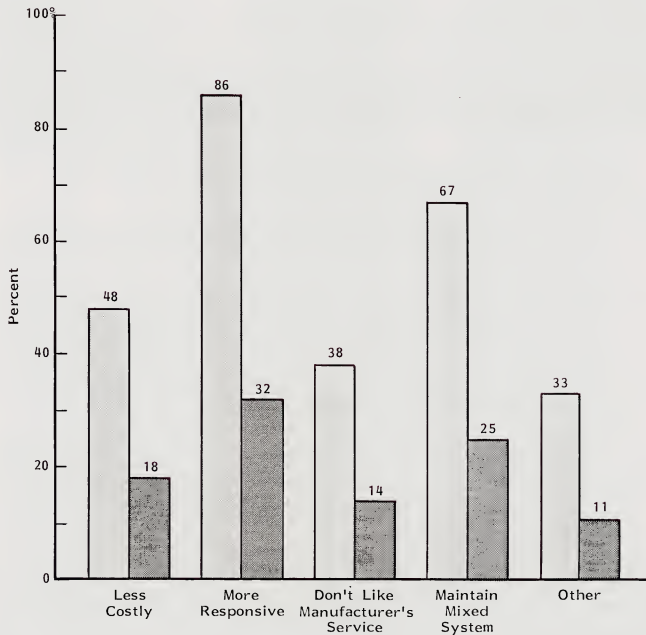
D. MARKETING

I. CUSTOMER RATIONALE FOR USING TPM

- The principal motivator for buying TPM, according to vendors, is the fact that it is more responsive, as shown in Exhibit IV-16. Eighty-six percent of TPM vendors thought that responsiveness is the key motivator.
 - Sixty-seven percent of TPM vendors felt that maintaining mixed systems is an important reason users select TPM.
 - Lower cost is considered a main reason for TPM from 48% of respondent firms.
 - Not liking the manufacturer's service was cited by 38% of the respondents as a reason for using TPM.
- Thirty-three percent of the TPM companies claimed that there are other important reasons for a user to choose TPM.
 - Flexibility is one important feature. It generally means that TPM firms are able to provide tailored service or write virtually any type of contract to meet the customers' maintenance requirements.
 - Friendliness by TPM companies helps get business:
 - "Our switchboard operators know the customers by individual names and are friendly with them. We care."

EXHIBIT IV-16

MOTIVATION FOR USING TPM



Percent companies declaring this motivator
 Percent of all mentions

SOURCE: TPM Vendor Data

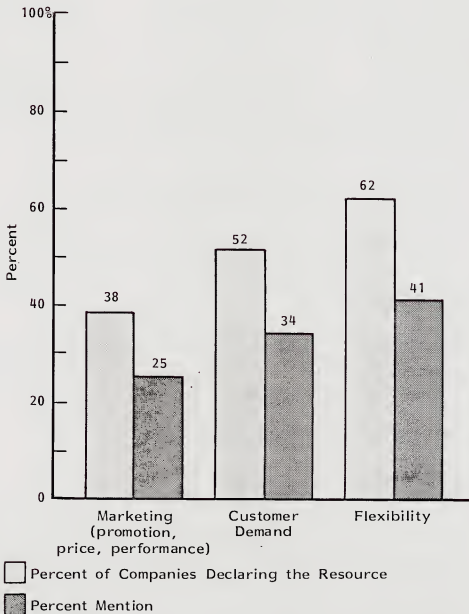
- "The manufacturers are autocratic and customers feel they are their servants; they (customers) need one back side to kick on."
- TPM professionalism is another strong motivator according to TPM vendors.
- Objectivity is also important to users. "We (TPM firms) can give the customer advice on hardware and software upgrades with no axe to grind."
- TPM vendors claim that, once users choose TPM, their loyalty is strong. Less than 10% (annually) of users stop using TPM after trying. Most who do stop using TPM do so because:
 - "They upgrade to new systems under warranty."
 - "Equipment obsolescence or change."
 - "Equipment phase out."
 - "Equipment changes and competition from manufacturer."
 - "Not enough goes wrong."
 - "Companies using TPM close down."

2. REASONS FOR TPM SUCCESS

- There is a close correlation to what TPM vendors believe motivates users towards TPM service and actual reasons for success. Sixty-two percent of TPM vendors indicated that the reason for TPM success is the fact that TPM is flexible or more adaptable to the customer's unique requirements, as shown in Exhibit IV-17. Customer demand and marketing effort also account for success of TPM.

EXHIBIT IV-17

SUCCESS IN PROVIDING TPM



SOURCE: TPM Vendor Data

- Selling and marketing effort is commonly handled by field or home office managers in TPM companies. One TPM firm related that "We provide very little marketing effort. It just isn't required."
 - "This firm gets all the business it can handle by word of mouth."
 - Another larger firm markets TPM aggressively with the 50% rule. They expect their sales people (managers) to get a foot in the door 50% of the time and then sell 50% of those prospects "something that's billable."
 - Additional parameters for success of TPM, as cited by TPM vendors, include:
 - "Give the customer the package he wants as opposed to the IBM approach of: "Here's what you can have."
 - "Recruiting the right people, 28-38 years old."
 - "High standards."
 - "Reputation."
 - "Good old-fashioned service."
 - "Exclusivity - no other choice."
 - "Extent of geographical coverage - number of offices."

3. COMPETITION

- As can be seen from the list of TPM vendors in Appendix A, the U.K. dominates the European market in numbers of TPM companies. There are nearly 100 TPM companies in Britain, most of which are small. This makes the United Kingdom market very competitive. Even with its large potential market, there may not be room for so many competitors. A scramble may ensue resulting in the usual "survival of the fittest."

- Other European TPM markets appear to have insufficient resources to meet current and future demands. What is likely to occur is a "gold rush" of U.K. TPM firms to the fertile markets abroad. U.S. TPM firms are also likely to arrive soon in Europe.

- Because of confidentiality, only 16 respondents stated who their competitors were. Names of competitors and the number of times they were mentioned as a competitor (in parentheses) are as follows:
 - CFM (8).
 - DDT (4).
 - DPCE (3).
 - Cable and wireless (2).
 - Digital Equipment (2).
 - SMS (1).
 - TSS (1).
 - GCS (1).

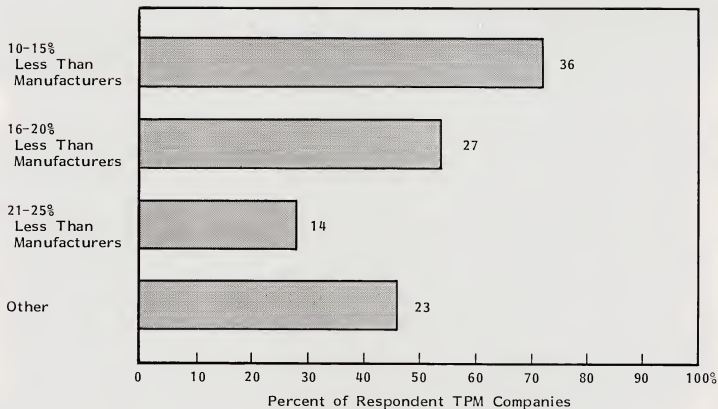
- Honeywell (1).
- Systime (1).
- Datatype (1).
- Nexel (1).
- Escon (1).
- Datacare (1).
- Sita (1).
- Thijssen (1).
- Compass (1).
- SRA (1).
- Goran-Waerner (1).
- Telvnet (1).
- Telut (1).

4. PRICING

- Exhibit IV-18 shows that the most common (36% of TPM vendors) price discounts by TPM firms are in the 10-15% range. Discounts are based on manufacturers' standard prices. Twenty-seven percent of TPM firms discount their service between 16% and 20% off manufacturers' prices. Twenty-one to 25% discounts are used by 14% of respondent TPM firms.

EXHIBIT IV-18

TPM PRICING



SOURCE: TPM Vendor Data

- None of the respondent TPM companies normally discounts TPM service more than 25% from manufacturers' prices for maintenance. One exception is a vendor who grants a 25% or higher discount to the user if the user does his own preventive maintenance or purchases extra spare parts. It is also usual to have discount structures based on type of equipment, such as 10 to 15% off for peripherals or 16% to 20% off for central processors.

- Thirty-three percent of the TPM vendors have pricing methodologies, strategies, or practices outside the discount limits of 1% to 25%. Several TPM vendors, with or without standard price lists, bundle their pricing into customized service agreements. These bundled, customized contracts are often more costly than what manufacturers would charge, item by item.
 - In some instances, even if the contract is not bundled or customized, TPM pricing may be accepted by the user at a higher rate than the manufacturer's because the user is "fed up with the manufacturer and willing to pay more."

 - One TPM vendor who does not have much competition bases his prices on MTBF, parts costs, and field reliability feedback.

E. TRENDS

- Trends in TPM over the next three years can best be summarized by a sampling of direct quotations from TPM respondents, as shown in Exhibit IV-19. Major issues and trends center around the rapid infusion of microcomputers into the installed base.
 - Most TPM firms seriously view this business as very low cost and volume dependent. The competition will be extremely keen and based on price, availability, and quality of service.

EXHIBIT IV-19

TRENDS AND ISSUES IN TPM (AS EXPRESSED BY TPM VENDORS)

"Higher productivity through central dispatch, remote diagnostics, etc."

"Less and less maintenance is required but what remains is of a critical nature."

"Owner diagnostics and repair may become so easy that ad hoc service will prevail."

"The micro is significant. Any TPM firm not considering the micro does not understand its importance. The law now requires at least one computer in every school."

"Maintenance pricing for terminals will rise to 15% to 20% (per year) of the original cost of the hardware."

"Third-party maintenance must provide services for complete office system integration or die."

"(TPM) will expand. We need to reduce repair time through automation."

"More user friendly, flexible services - more walk-in repair facilities - more aggressive marketing."

"Equipment cost reduction will force maintenance vendors to become ultra efficient."

"Customer awareness of third-party maintenance."

"Economic life of equipment will be less than the technical life."

"Walk-in maintenance - harder competition - bigger investments - software maintenance."

"Drive-in service - 'robot' service."

"The quality of service, the way customers are treated, is important. DEC is large and impersonal. The person that answers the DEC service phone can not relate to the service problem in the field."

- A latent but significant danger is the inexperienced user of the future, who unknowingly could severely impact TPM. An unfamiliar user can inadvertently cause service problems by forgetting to plug in or turn on the system, placing the system in a hostile (temperature, dust, humidity extremes) environment, for example. Readers are referred to an INPUT field service brief entitled Maintenance of Personal Computers, dated November 1982.
- Another trend is the fact that TPM is becoming more accepted by users and consequently is a high-growth industry but with increased competition and lower prices.
- TPM firms' desire for technical improvements is another key trend. These improvements include remote diagnostics, more and better test equipment, and better methods of servicing. Technical planning will play an important role in overall business planning.

APPENDIX A: LIST OF KNOWN TPM FIRMS
IN EUROPE

APPENDIX A: LIST OF KNOWN TPM FIRMS IN EUROPE

(Please note that this list is subject to frequent changes).

A. GERMANY

Herr Walter Moos
Managing Director
VOLLWOOD COMPUTER SERVICE GmbH
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Phone: 061-21-70 28 08

PERIPHERE COMPUTER SYSTEME GmbH
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Germany

Phone: 089/681021 Telex: 523271

PERIPHERE COMPUTER SYSTEME GmbH
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Germany

Phone: 02102/470009 Telex: 0858315

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BRINK B.V.
Industrie Terreins
Staphorst
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Phone: 010-31-5765-1155

Mr. Jakob Broekman
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Mr. A. C. van Tilburg
Mgr. Technical Division
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Phone: 0470-42000

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Phone: 08-743 06 60

Mr. Jan Tufvesson
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RADIO SUISSE
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PHONE: 41-1-361 1111

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France

Phone: 700-375 400

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General Manager
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France

Phone: 240-1930

M. Bigo
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France

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Culcheth
Warrington

Phone: (092576) 5082

Field Service Director
APK DATA SERVICES
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Phone: (0562) 850985

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Phone: 01-965 9311

Mr. Cornelius
Mgr. TPM
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North Humberside

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Mr. John Atkinson
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Phone: 76-85516

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Field Service Director
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Mgr. TPM
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Phone: (0462) 51511

Field Service Director Phone: 0481-20155
CHANNEL ISLAND COMPUTER CONSULTANTS LTD
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Miss McDonald Phone: (0883) 40511
COLVIN COMPUTER CENTRES LTD
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COMART LTD
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Field Service Director Phone: 01-487 3351
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Field Service Director Phone: (0268) 710292
COMMERCIAL DATA SYSTEMS LTD
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Billericay
Essex CM11 1PU

Field Service Director Phone: 01-602 4502
COMPUTER BROKING SERVICES LTD
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Mr Dolan Phone: (0462) 51511
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Field Service Director
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Field Service Director
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Field Service Director
COVENTRY DATA SERVICES LTD
1 Bentinck Street
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Field Service Director
CPS (DATA SYSTEMS) LTD
Onelon House
1102 Warwick Road
Acocks Green
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Phone: 0217-073866

Field Service Director CRANFIELD COMPUTER SERVICES LTD Computer House 52-54 Bellegrove Road Welling, Kent DA16 3PB	Phone: 304-8326
Field Service Director CRYSTAL ELECTRONICS 209 Union Street Torquay Devon TQ1 4BY	Phone: 0803-22699
Field Service Director CYTEK (UK) LTD Sandringham House 9 Warwick Road Manchester M16 0QQ	Phone: 061-872 4682
Mr. Dunkley DATRON INTERFORM LTD 2 Abbeydale Road Sheffield S7 1FD	Phone: 0742-58-5490
Mr. Lucas DAVY COMPUTING LTD Moorfoot House Clarence Lane Sheffield S3 7UZ	Phone: 0742-71201
Mr. McNeughton FS Manager DACOLL ENGINEERING SERVICES LTD Dacoll House Gardners Lane Bathgate, West Lothian	Phone: (0506) 56565
Field Service Director DATA CONTROLS (MIDDLESBROUGH) LTD 89 Park Lane Middlesbrough Cleveland TS1 3LN	Phone: (0642) 248831
Field Service Director DATA DESIGN TECHNIQUES LTD 12 Leeming Road Borehamwood, Herts WD6 4DU	Phone: 01-207 1717

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Phone: 01-848 9781

Mr. Paul Spooner
Technical Director
DATA LOGIC LTD
Horsecroft Road
The Pinnacles
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Phone: 0279 35461

Field Service Director
DATA RESALES LTD
Data House
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Field Service Director
DATA-TYPE TERMINALS LTD
Unit 213
Springvale Industrial Estate
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Phone: (06333) 69162

Field Service Director
DATAWORD EQUIPMENT LTD
Hermes House
89 Blackfriars Road
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Field Service Director
DAVISON TECHNICAL SERVICES
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DDM DIRECT DATA MARKETING LTD
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DECTRADE LTD
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Phone: (0602) 232265

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ICS COMPUTING LTD
Queens Road
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526-528 Watford Way
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Field Service Director
INTER-CITY COMPUTERS LTD
12 Brunswick Street
Leicester LE1 2LL

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KEYTECH ENGINEERING LTD
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Phone: (0628) 72037

Field Service Director
LMR COMPUTER SERVICES
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Phone: 0628-37123

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Phone: 0926-312542

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Administrator
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Bamford Grange
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TPM Manager
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Phone: 01-876 6609

Field Service Director
MICROPROCESSOR SERVICES
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N. Humberside

Phone: 0482-23146

Mr. John May
MICRO SYSTEMS MAINTENANCE
Calne
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Phone: (0249) 814879

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Mgr. TPM
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Engineering Director
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Mgr. TPM
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TPM Manager
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BB4 7PA

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NEXEL LTD
2nd Floor, Harcourt House
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ORCHARD COMPUTER SERVICES
21 St. Martins Street
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Mgr. TPM
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Mgr. TPM
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Leicester 3

Phone: 0533-551410

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TKT COMPUTER SERVICES LTD
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Drovers Lane
Penrith
Cumbria

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TRIDENT GENERAL INSURANCE CO LTD
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FS Engineer
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Phone: (0252) 49657

Mr. Mike Cocill
Mgr. TPM
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BRI 3AA

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23 Cumberland Place
Southampton SO 2BB

Phone: 0703-334711

APPENDIX B: SAMPLE CONTRACTS

A MAJOR UK TPM FIRM

MAINTENANCE AGREEMENT

This AGREEMENT is made this day of
BETWEEN (UK) LTD. of

(hereinafter called of the one part AND

(hereinafter called "THE CUSTOMER") of the other part.

IN WITNESS whereof the parties hereto have executed this Agreement on the day and year first hereinbefore written.

SIGNED for and on behalf of

(UK) LTD

MANAGING DIRECTOR.....

in the presence of:

SIGNED for and on behalf of

in the presence of:

Continued

A MAJOR UK TPM FIRM (Cont.)

WHEREBY IT IS AGREED AS FOLLOWS:

1. SUBJECT MATTER OF AGREEMENT

(a) agrees to provide and the Customer agrees to accept on the terms and conditions herein contained maintenance service on the machines described in the machine schedule Appendix I or in any supplemental machine schedule(s) executed by both parties from time to time commencing on the service commencement date as indicated in the machine schedule(s) and at the location(s) shown.

(b) DESCRIPTION OF SERVICE

The maintenance service shall be performed in accordance with the schedule(s) as outlined in Appendix II.

2. DEFINITIONS

In the Agreement the following meanings shall apply.

"Maintenance Service" means preventive maintenance service and remedial maintenance service but does not include any service of the nature excluded under Clause 8 of this Agreement.

"Preventive Maintenance Service" means the cleaning adjusting and lubrication of each machine and the testing of each machine to determine that it is in good working order in accordance with the manufacturer's specifications.

"Remedial Maintenance Service" means the adjustment or the replacement of any faulty part in a machine upon request and thereafter the testing of the machine to determine that it is in good working order.

"Machine" means a machine or device mentioned in any machine schedule(s) annexed hereto or in any supplemental machine schedule(s) executed by both parties from time to time and annexed hereto.

"Part" means any assembly sub-assembly or component part contained in any machine.

Continued

A MAJOR UK TPM FIRM (Cont.)

"Normal and Proper Use" in respect of a machine means the use thereof strictly in accordance with its specifications.

"Specifications" in relation to any machine means the engineering and operational data for the machine as published by its manufacturer in the relevant technical manuals for the machine appropriately revised from time to time in accordance with the latest engineering changes accepted by the Customer.

"Month" means calendar month.

3. TERM

This Agreement shall commence onand shall remain in force for not less than years. Thereafter the Agreement shall remain in force indefinitely unless terminated by either party giving the other party six months prior written notice.

4. CHARGES

(a) The Customer shall pay to at the times and in the manner herein provided:

(i) the basic monthly maintenance charge as specified in Appendix III.

(ii) Whenever at the request of the Customer additional services are performed outside the agreed service a charge at hourly rates and terms then in effect.

(iii) Whenever performs any remedial maintenance service whether within the period of maintenance or not and it is ascertained that such service was made necessary due to any cause whatsoever other than the normal and proper use of a machine a charge at hourly rates and terms then in effect.

Continued

A MAJOR UK TPM FIRM (Cont.)

- (b) All maintenance charges shall be payable by the Customer against invoices properly submitted by in advance on the first day of each month. All other charges payable by the Customer under this Agreement shall be invoiced by and shall be paid by the Customer within 30 days of the invoice date of receipt. All charges payable by the Customer under this Agreement are net and shall be paid free of any deduction whatsoever to at:

unless otherwise directed in writing by

5. ALTERATION IN CHARGES

- (a) All alterations in charges shall be based upon the Index of Average Earnings for the Electrical Engineering Industry as published in the Department of Employment Gazette and shall vary the contract price by the same percentage with any increase commencing from the first of the month following the period to which the variation applies.
- (b) shall undertake not to increase within the twelve month period immediately following the last increase or from the commencement date of the contract.
- (c) The index figure which forms the basis for calculating the escalation charges will be that prevailing on
- (d) During the currency of the Agreement the Customer may elect to alter the composition of the equipment detailed in Appendix I. In case of significant equipment changes the basic monthly maintenance charge may be altered by mutual agreement between the Customer and

6. OTHER SERVICES

shall subscribe where possible for each Engineering Memorandum published by the manufacturer/supplier of a machine which indicates the availability of engineering changes to a machine and shall inform the Customer of such engineering changes.

Continued

A MAJOR UK TPM FIRM (Cont.)

7. REPLACEMENT PARTS

All replacement parts installed by _____ in the performance of maintenance service except those excluded by Clause 8 hereunder will be provided at the expense of _____ and will be new or if not new at least equivalent to new when used in a machine. Whenever parts are withdrawn from a machine and replaced by other parts then the withdrawn parts shall become the property of _____ and the parts replacing the withdrawn parts shall become the property of the Customer. The cost of all parts not so provided at the expense of _____ shall be paid for by the Customer.

7. All replacement parts installed by _____ in the performance of maintenance service will be provided at the expense of the Customer but _____ shall accept responsibility for the management of the Customer's parts inventory that relates to this Agreement including the initiation of supplier orders for replacement parts.

8. EXCLUSIONS

Maintenance service under this Agreement provides for the standard charges included in 4a (i) and (ii) aforementioned but does not include:

- (a) Maintenance service made necessary by abnormal or improper use by:
- i. any fault or defect occurring in any machine not mentioned in the machine schedule(s).
 - ii. accident transportation fault or negligence of any person other than an employee or contractor of _____
 - iii. failure of _____ or failure to provide adequate electrical power air conditioning humidity.
 - iv. vandalism fire or water damage.
 - v. maintenance of machines or other devices not mentioned in the machine schedule(s) hereto or in any supplemental machine schedule hereto.
 - vi. electrical work external to any machine.
 - vii. furnishing accessories or attachments painting or refinishing the machines or furnishing materials thereof performing services connected with the relocation of machines or adding or removing accessories attachments or other devices.

A MAJOR UK TPM FIRM (Cont.)

- (b) reserves the right to withdraw maintenance service on any specific machine mentioned in the machine schedule(s) whenever that machine is moved repaired or modified by other than an employee or contractor of _____ without _____ prior written consent. Maintenance services on such machines will resume once maintenance acceptability tests have been carried out by an employee or contractor of _____ and acceptance is granted.

9. LIMITATION OF LIABILITY

- (a) In the event of loss or damage to a machine or to any part thereof caused by a negligent act, default or omission of _____ or any employee or agent of it (any such machine or part is hereinafter called 'subject device'), _____ shall at its own expense either restore in so far as technically possible, the subject device to the condition it was in immediately before such damage or at its own election replace the subject device with a machine or part as the case may be in a condition similar to that which the subject device was in immediately before such loss or damage.
- (b) In addition to _____ obligations as mentioned in (a) above, _____ accepts liability for loss of or direct physical damage to any property lawfully on the premises where any machine is located if such damage is caused by the negligence of _____ its employees or agents provided however that the total liability of DPCE arising pursuant to this subclause shall be limited to £5,000,000 per event whether the same shall arise out of any single act or omission or a series thereof: _____ hereby agrees to indemnify the Customer, its employees and its agents, against any claim resulting from aforesaid loss or damage.
- (c) Each party shall be liable for death of or injury to their own employees and their agents arising from the performance or non-performance of this Agreement and each party agrees to indemnify the other party, the other party's employees and the other party's agents against claims as a result of such death or injury (other than incurred or suffered by the other party's employees and agents) unless such death or injury has been caused by the wilful misconduct of the other party.

Continued

A MAJOR UK TPM FIRM (Cont.)

- (d) Apart from the liability accepted by pursuant to sub-clause (a), (b) and (c) above shall not be liable in contract or in tort for any loss or damage howsoever caused to the property of the Customer its employees or its agents or any other third party whatsoever, nor shall it be liable for any death or injury to any third party arising from the performance or non-performance of this Agreement, unless such loss, damages, death or injury has been caused by the wilful misconduct of ; the Customer agrees to indemnify , its employees and its agents against any claim resulting from such loss, damage, death or injury.
- (e) Notwithstanding the foregoing provisions of this Clause neither nor the customer shall be responsible or liable for any losses arising from failure to perform or observe or delay in performing or observing any obligation hereunder where such failure or delay arises from any cause beyond the control of or the Customer as the case may be.

10. WORKING CONDITIONS

For the purposes of this Agreement maintenance engineers shall have full and free access to the machines and the Customer shall provide at its own expense adequate working area suitably furnished and equipped for the purposes of enabling to perform its obligation under this Agreement. personnel shall adhere to and abide by all normal personnel regulations applying to Customer's staff.

11. GENERAL

- (a) This document together with the Appendices contains the entire Agreement between and the Customer with respect to the maintenance of the machines and supersedes all oral or written communications and any prior Agreement with respect thereto. Save where otherwise stated herein this Agreement may not be altered modified terminated or discharged except by a written amendment signed by both parties.
- (b) The customer warrants that it is entitled or empowered to authorise to perform maintenance service in respect of all machines for which maintenance service shall be provided under this Agreement.
- (c) This Agreement shall be construed in accordance with and governed by the law of England.
- (d) All disputes differences or questions between the parties to the Agreement with respect to any matter arising out of or relating to the Agreement shall be referred to the arbitration of the President of the Law Society.

A MAJOR UK TPM FIRM (Cont.)

- (e) Formal Notices and requests to _____ may be by letter or telex to:

MANAGING DIRECTOR

- (f) Formal Notices to the Customer (by letter) shall be to:

(g) Each party hereto warrants to the other that it has effective Employer's and Public Liability Insurance Policies and each party undertakes to maintain the aforesaid policies during the term of this Agreement and the authorised representatives of each party shall be entitled to inspect the aforesaid policy on seven days written notice given to the other party. Each party agrees to hold the other harmless for any claim from a third party in this respect.

- (h) For the purposes of this Agreement the Customer shall provide _____ with full and free access at all times to all technical manuals setting out the specifications of any machine.

R.7
11.02.83

Agreement No. _____

MAINTENANCE SERVICE AGREEMENT

An agreement made between _____ and the 'Customer' for the maintenance of the 'Equipment' at the 'Installation Address' specified, whereby during the continuance of the Agreement _____ will supply and the Customer will accept _____ maintenance service for the equipment under the terms and conditions set out below and in the schedule hereto.

1. SERVICE PROVIDED

Between the hours of 0900 and 1700 Monday to Friday (excluding Statutory Holidays) _____ will supply a maintenance service as follows:

- Preventive maintenance routines will be executed at intervals determined at _____'s discretion, normally annually. These routines will be carried out at times agreed between _____ and the Customer, and will consist of such testing, lubrication, adjustment and replacement of worn parts as is deemed necessary by _____ to keep the equipment in good working order.
- Remedial maintenance visits to remedy malfunction of the Equipment including the replacement of unserviceable parts, _____ may at its option temporarily provide a substitute unit for any of those constituting the equipment.
- All defective parts permanently removed by _____ will become the property of _____ and the replacements will become the property of the Customer.
- _____ rate of charge covers all labour and parts associated with normal use and fair wear and tear of the Equipment (excluding operator changeable consumables such as ribbons, 'daisy wheels', print heads and print bands) during the hours stated. _____ reserves the right however to make additional charges to cover abnormal use of the Equipment, used substantially in excess of or outside the hours stated, repairs due to other than fair wear and tear, and service calls occasioned by other than Equipment malfunction such as operator error, accident, interruption of electricity supply, programme error, failure to observe _____ recommendations as to the proper use and care of the equipment etc.

2. CUSTOMER OBLIGATIONS

The Customer will:

- Ensure that the environment and supply conditions suitable for the equipment are maintained in accordance with the recommendations set out in the Site Preparation Manual, and will keep the Equipment clean, and in good condition.
- Allow _____ prompt access to the Equipment for maintenance purposes, provide adequate working space and facilities for _____ Staff and will cooperate with them in the diagnosis of Equipment malfunction.
- Keep and operate the Equipment in a proper and prudent manner, ensure that only competent trained staff are allowed to operate it, and will use only media of a type approved by _____ which approval will not be unreasonably withheld.
- Not move the Equipment nor make any addition modification or adjustment to it without the prior written consent _____ which consent will not be unreasonably withheld, nor allow persons other than _____ Staff to adjust repair or maintain it.

3. DURATION

- This Agreement will continue for a minimum period of one year from the date as detailed on the schedule hereto, and thereafter will continue until the expiry of 3 months' notice of termination given in writing by either party.
- _____ is enabled to provide these services by the provision of spares and support from _____. Should this support cease, _____ reserve the right to amend or terminate the agreement.

4. CHARGES

_____ charge will be as herein stated for the first year of the Agreement. _____ will give 3 months' written notice of any variation thereafter; reviews will normally be effective from anniversary dates of the contract.

5. REFURBISHING

If in the opinion of _____ an item of electromechanical equipment can no longer be subject to economic maintenance, _____ will submit a refurbishment cost estimate which will be in addition to the stated annual charge. If such work is authorised within 30 days, the item of equipment will subsequently remain under contract, if not, _____ may delete the item from contract at 30 days' notice.

6. LIABILITY

Except as herein expressly stated _____ shall not be liable for loss or damage arising from any stoppage breakdown or failure of the Equipment. If however, personal injury or damage to property is caused by the negligence of _____ or its servants or agents then liability (except in cases of death or personal injury) will be limited to £500,000 in respect of any claim or series of claims arising out of any one accident. _____ shall use all reasonable endeavours to remedy any stoppage or breakdown or failure as promptly as it is able and likewise shall use all reasonable endeavours to keep the Equipment in good working order.

7. DEFAULTS

If the Customer shall fail to make punctual payments or if either party shall be in breach of its obligations hereunder _____ or the other party (as the case may be) may forthwith by written notice terminate this Agreement without prejudice to the pre-existing rights.

8. NOTICE

Any notice given hereunder may be sent by post addressed to the party to be served at its registered office for the time being and a notice so sent by prepaid post shall be deemed to have been received by the party to which it is addressed at the time at which it would have been delivered in the ordinary course of post.

9. FORCE MAJEURE

Neither party shall be under any liability for failures or delays attributable to causes beyond its control.

10. ARBITRATION

Any question or difference which may at any time arise between the parties hereto concerning the provisions of the Agreement or the effect thereof or the rights and duties of the parties hereto shall be referred to a single arbitrator to be agreed between the parties hereto or in default of agreement to be appointed by the President for the time being of the Institute of Electrical Engineers and such reference shall be deemed to be for all purposes a reference to arbitration under the Arbitration Act 1950 or any statutory modifications or re-enactment thereof for the time being in force.

11. INSPECTION

This contract is issued subject to the Equipment being found in a fault free and serviceable condition by inspection. Should the Equipment not be fault free or serviceable any work required to make it so will be considered a chargeable service outside the terms of this contract.

12. GOVERNING LAW

The validity, construction and performance of this Agreement shall be governed by the Law of England.

Signed on behalf of (The Customer)

Name:

Position:

Signed on behalf of

Name:

Position:

Start Date:

EQUIPMENT SCHEDULE:

Equipment	Located at	Annual Charge

Payment Terms: Annually in Advance
 V.A.T. : All Prices are Exclusive of Value Added Tax

Customer's Registered Address:-

Invoicing Address

A MAJOR EUROPEAN TPM FIRM

STANDARD CONTRACT FOR SCHEDULED MAINTENANCE

This Agreement made this _____ day of _____ 19____ between
whose registered office is situated at _____
(hereinafter called "the Contractor" which expression shall include its successors and permitted assigns)
of the one part and _____
situate at _____ whose registered office is _____

(hereinafter called "the Customer" which expression shall include its successors and permitted assigns) of the other part.
WHEREBY it is agreed that the equipment listed in the Schedule hereto (hereinafter called "the Equipment") shall be maintained by the Contractor on the following terms and conditions:

1. Maintenance Service.

Subject always to the terms of this Agreement, the Contractor shall use its best endeavours to maintain the Equipment in good working order and in particular shall undertake maintenance services (hereinafter referred to as "the Scheduled Maintenance Services") as follows:

(a) Preventive Maintenance

The Contractor shall carry out routine preventive maintenance at such periodic intervals as are specified in the Schedule hereto, provided always that when it is expedient in the opinion of the Contractor such maintenance may be carried out at other times for corrective maintenance.

Except where the aforementioned proviso applies, routine preventive maintenance shall be carried out only at such times during the Contractor's normal working hours as may be mutually agreed between the Contractor's local Area Supervisor and the Customer.

(b) Corrective Maintenance

In the event of a fault occurring in the Equipment, the Contractor shall carry out corrective maintenance during the Contractor's normal working hours and/or during such other period(s) and subject to such additional charge(s) as may be specified in the Schedule hereto.

For the purpose of such maintenance, the Customer shall notify the appropriate Fault Control Centre(s) specified in the Schedule hereto.

2. Access

For the purpose of undertaking the Scheduled Maintenance Services, the Contractor shall have full and safe access to the Equipment.

3. Customer Assistance

1. The Customer shall make available to the Contractor all necessary drawings, handbooks, manuals and other technical data relating to the Equipment and shall upon request and for the assistance of the Contractor in undertaking the Scheduled Maintenance Service provide staff familiar with the Customer's programs and/or applications.

2. The Customer shall provide suitable working space and facilities and shall make available such safe storage of a suitable nature as may be required from time to time by the Contractor for the storage of test equipment and/or component spares.

3. All charges and expenses incurred in fulfilling the obligations under paragraphs 1 and 2 above shall be the liability of the Customer.

4. Maintenance Charges

1. In consideration of the Scheduled Maintenance Services the Customer shall pay to the Contractor the charges specified in the Schedule hereto.

2. The said charges are payable periodically in advance as specified in the Schedule hereto and shall be paid by the Customer within 28 days of receipt of the Contractor's invoice.

3. Any additional charges arising otherwise than in respect of the Schedule Maintenance Services shall be paid by the Customer within 28 days of receipt of the Contractor's invoice.

A MAJOR EUROPEAN TPM FIRM (Cont.)

5. Variation of Maintenance Charges

The charges specified in the Schedule hereto shall be subject to periodic review in the light of the Contractor's labour and material costs, including the cost of component spares, and may be varied at any time by the Contractor upon three months' notice being given in writing to the Customer setting out the basis of the variation.

6. Spares and Test Equipment

1. For the purpose of undertaking the Scheduled Maintenance Services, the Contractor shall supply all necessary tools and test equipment and all component spares required to ensure the operational efficiency of the Equipment in normal use, provided always that should any component spare be required to replace a part damaged by other than fair wear and tear, as to which the Contractor's decision shall be final and binding on the Customer, the Contractor reserves the right to charge the Customer in respect of any such component spare.

2. The Contractor reserves the right to determine what constitutes a component spare, and such determination shall be final and binding on the Customer but in any event shall not extend to operating media such as paper, tape, ribbon, inking materials and all other expendable items for which the Customer alone shall be responsible.

3. The Customer shall bear the full cost of replacing any part of the Equipment which in the opinion of the Contractor does not constitute a component spare.

7. Overhauls

1. If at any time the Contractor shall consider that any item of the Equipment cannot be maintained economically by the provision of component spares alone, and consequently that an overhaul of any such item is necessary, the Contractor shall give notice in writing to the Customer and shall within 30 days submit an estimate in writing of the cost of such overhaul.

2. The Customer shall bear the full cost of such overhaul, including the cost of replacing any sub-assembly units and of all component spares.

3. The Contractor shall continue so far as possible to undertake the Scheduled Maintenance Services, provided nonetheless that should the Customer not consent within 90 days of the Contractor's notice under paragraph 1 above to bear the full cost of such overhaul, the Contractor may act pursuant to Clause 8 hereof.

8. Non-Maintainable Equipment

If in the opinion of the Contractor any item of the Equipment cannot be maintained satisfactorily either by the provision of component spares or by an overhaul, and if the Customer does not consent within 90 days of the Contractor's notice under Clause 7 hereof to bear the full cost of an overhaul, the Contractor reserves the right to remove any such item from the scope of the Agreement upon notice being given in writing to the Customer.

9. Care of the Equipment

1. The Customer shall exercise due care in respect of the Equipment and in particular shall house the Equipment in suitable premises and under suitable conditions, shall not move the Equipment to another location, shall use only such operating media as are approved by the Equipment manufacturer(s) and shall follow all such instructions and recommendations relating to the care and operation of the Equipment as may be issued by the Equipment manufacturer(s) from time to time.

2. The Customer shall carry out operator's routine servicing of the Equipment in accordance with all such instructions and recommendations as may be issued by the Equipment manufacturer(s) from time to time, but except insofar as Clause 10 hereof applies shall not otherwise adjust, maintain, repair, replace or remove any of the Equipment or any part thereof or permit any other person so to do.

10. Non-Maintenance Work

1. The Customer shall at all times ensure that all non-maintenance work, including but not limited to any modification, additions or attachments to the Equipment, shall be carried out only by the Contractor, unless the contrary is expressly permitted by written consent of the Contractor's local Area Supervisor, which consent shall not be unreasonably withheld.

2. All such non-maintenance work carried out by the Contractor shall attract additional charges based on the Contractor's standard charges for such work as from time to time established.

11. Default of Customer

Any obligation or liability of the Contractor under this Agreement shall be suspended and unenforceable by the Customer whilst the Customer is in default of the terms of payment or any other of the Customer's obligations under this Agreement.

12. Liability/Indemnity

1. The Contractor shall take all reasonable precautions to avoid any loss, damage, injury or death to any property or person (hereinafter collectively referred to as "losses") but shall be under no liability whatsoever to the Customer or to any other person or body corporate or unincorporate for any losses except where losses are caused wholly and directly by the negligence or wilful misconduct of the Contractor in performing its obligations under this Agreement, provided

A MAJOR EUROPEAN TPM FIRM (Cont.)

always that:

- (a) In the event of such negligence or wilful misconduct the aggregate liability of the Contractor in respect of all losses shall not exceed £50,000; and
- (b) The Contractor shall not in any event be liable for:
 - (i) any losses resulting wholly or in part from any faulty materials or component spares other than those manufactured by the Contractor; or
 - (ii) any losses, pecuniary or otherwise, arising indirectly or consequentially either from any usage, malfunction, failure or unserviceability of the Equipment or otherwise by virtue of the existence of this Agreement.
2. The Customer shall indemnify the Contractor and keep the Contractor indemnified fully against all damages, costs, charges and expenses arising in connection with any claim, demand, action or proceedings against the Contractor (hereinafter collectively referred to as "claims") in respect of losses other than those which are established to be the liability of the Contractor under paragraph 1 above.
3. The Contractor shall give notice to the Customer of any claims in respect of losses and shall without prejudice to its own right with respect thereto and at the expense of the Customer give all such assistance as may reasonably be required to enable the Customer to deal with any claims.

13. Period of Contract

This Agreement shall be concluded for a minimum period as specified in the Schedule hereto from the date of signing hereof and, unless then terminated by notice as hereinafter provided or extended for a further definite period by mutual agreement of the parties, shall continue thereafter until terminated by either party by at least three months notice given in writing to the other party.

14. Termination

1. This Agreement may be terminated as follows:
 - (a) by either party by due notice given pursuant to Clause 13 hereof; or
 - (b) by either party forthwith by notice in writing in the event of any breach of the Agreement by the other party continuing for 30 days after notice in writing hereof.
2. Any termination under paragraph 1 above shall be without prejudice to any prior rights of either party under this Agreement.

15. Force Majeure

1. The Contractor shall not be held liable or deemed to be in default under this Agreement for any failure to perform its obligations hereunder if such failure results directly or indirectly from force majeure.
2. For the purpose of this Agreement, force majeure means any law, order, regulation, direction or request of the Government of the United Kingdom or of any other Government, of any Department, Agency or Corporation of any one or more of such Governments, or of any supranational legal authority; failure or delay of transportation; inability to obtain, or delay in obtaining, necessary labour, manufacturing facilities, materials or component spares from usual sources; strikes or other labour difficulties; insurrection; riots; national emergencies; war; acts of public enemies; fire, floods or other catastrophes; acts of God; acts or omissions of the Customer; or any causes of like or different kind beyond the control of the Contractor.

16. Notice

1. Any notice or consent required or permitted hereunder shall be in writing and shall be deemed to be duly given if deposited by hand at or despatched by registered prepaid postage or by telex or telegram addressed to the registered office of the party to whom it is addressed as set out in the preamble to this Agreement or such other address as the said party may have specified by notice given in writing to the other party.
2. Unless it is expressly agreed otherwise, any such notice or consent shall be deemed to be served seven days from the date of deposit or despatch, whichever the case may be.

17. Entire Agreement

1. This Agreement together with the Schedule hereto constitutes the entire agreement and understanding between the parties and supersedes all previous agreements, understandings and/or representations between the parties.
2. Any terms and conditions on any purchase order or other document whatsoever issued by the Customer in connection with this Agreement shall not be binding on the Contractor and shall not have any significance in interpreting this Agreement, and the fact that the Contractor may quote the Customer's purchase order number on all invoices for the convenience of the Customer's accounting system shall not be taken as evidence to the contrary.
3. For the purposes of interpretation, the headings of the clauses hereof shall not be deemed to form part of this Agreement.

18. Amendment

Except where it is otherwise provided herein, any amendment to this Agreement and/or to the Schedule hereto shall be made only by the authority in writing of both parties.

Continued

A MAJOR EUROPEAN TPM FIRM (Cont.)

19. Law of Contract

This Agreement shall in all respect be governed by and construed in accordance with the laws of England.

Signed.
for and on behalf

Signed.
for and on behalf of

SAMPLE

A UK TPM (MICRO) FIRM

Contract Reference No.

between as the company

Company _____
Address _____ _____
Tel no. _____

and as the customer

Company _____
Address _____ _____
Tel no. _____ Telex _____
Equipment location (if different from above)
Company _____
Address _____ _____
Tel no. _____
Responsible contact _____

It is hereby agreed in accordance with the terms overleaf that hardware maintenance coverage is provided on the following schedule of equipment

Equipment/model	Serial No	Annual charge £
Maintenance charge		
Value Added Tax		
Total charge		

Commencement date

Additional work will be charged at _____ per hour

Accepted for and on behalf of

Customer: _____

Signature: _____ Date _____
duly authorised to sign on behalf of the customer

Name: _____ Position: _____

Customer reference or order no. _____

_____ For office use only

Accepted for and on behalf of the company

Signature: _____ Date _____

Name: _____ Position: _____

Pre-contract inspection completed: Date: _____

Signature: _____

Invoice no. _____

Commencement date _____

Please return this form to your nearest

Centre or

head office See terms and conditions overleaf

A commitment to service.

A service of the _____ group of companies _____ is a trademark of _____

C-MIS 6782/11

Continued

A UK TPM (MICRO) FIRM (Cont.)

Other Service plans

MICROSWAP PLAN

In large or multiple installations with in-house service engineers, diagnostics facilities may already exist. In order to facilitate a speedy repair offers a board and major system sub-assembly exchange service.

After preliminary discussion with your nearest Centre the faulty board is returned to head office and upon receipt and inspection an immediate replacement will be despatched. The exchange board will be charged at 30% of the list price.

Note: Details of the return procedure and a verbal quotation will be given at time of order.

MICROMEND PLAN

Each microserve Centre includes full repair service areas and workshops including sophisticated test equipment. Systems not maintained under a maintenance contract may be returned to your nearest Centre for repair or upgrading. This service is provided on a non-priority level and charges will be levied on a time and materials basis. Parts repaired, replaced or exchanged will be invoiced according to a standard schedule. Labour is charged on an hourly basis, dependent on the time taken by the service engineer to repair or upgrade the system and the subsequent tests to ensure that your system is up and running.

An approximate quotation can be provided before work commences and further details are available from your nearest microserve Centre, who will also provide details of that equipment for which they maintain a spares holding.

Note

Before returning equipment for repair a return authorisation (RA) must be agreed by the Centre concerned. No repairs will be accepted unless this RA Number is quoted on the paperwork and external packing accompanying the returned equipment.

Your nearest Centre will issue you with an RA Number on the telephone once you have provided the following information.

1. In the case of a chargeable repair, a purchase order number for the repair must be quoted (a letter can be accepted).
2. Serial number of equipment given.
3. A contact name supplied.
4. Fullst details of the problem given.

The above procedure is there to allow us to easily recognise your equipment and to ensure that we give you the best possible service, quickly and efficiently.

A commitment to service.

A service of the group of companies. is a trademark of

MICRO CALL PLAN

In addition to Contract Maintenance, Board Exchange and Workshop plans, also provides a field service for work carried out to order. This includes repair and service of hardware in the "field", not covered under a maintenance plan, installation and configuration of newly acquired hardware, plus upgrading of systems at both board and system level (e.g. board exchange in the event of update, modification or enhancement and upgrading from single to Multi-User, etc.). All work is carried out by our fully trained Service Engineers.

On site repair, service and upgrading facilities are provided on a time and materials basis. Parts will be charged according to those modules repaired, replaced or exchanged. Labour is charged on an hourly basis, which will also include travelling time to and from site.

Installation of pre-configured hardware will be commissioned on site at a standard charge which also includes transportation. Quotations will be made on a time and materials basis for more complex systems at current field rates.

Details of this service and applicable charges are available from your nearest Centre.

OTHER SERVICES

Training

For those organisations wishing to train their own engineers, provides a comprehensive range of theoretical and practical technical training courses covering the repair and maintenance of microcomputer hardware at both board and diagnostic levels.

Warranty

also provides a warranty service for Comart group of companies.

Consultancy, Customer Support and Advice

is a service of the Comart group of companies. The group includes microcomputer manufacturing and distribution companies, the Byteshop chain of nationwide computer centres, software and systems houses plus Xitan Systems Ltd.

Regional Centres are fully equipped for spares availability drawing on a central stores location at head office.

As a result of this close liaison with Comart, engineers are fully trained on manufacturers' equipment and draw on these technical and engineering resources, to combine technical competence with up to date knowledge.

Your nearest Centre will always be pleased to provide you with support and advice.

A UK TPM (MICRO) FIRM (Cont.)

TERMS AND CONDITIONS

1. Service

The company undertakes to provide maintenance on the equipment listed in the schedule overleaf (hereinafter referred to as "the Equipment") in accordance with the following service

- 1 Between the hours of 9:00 am and 5:30 pm Monday to Friday (excluding Statutory Holidays and Christmas closetown)
- 2 Including Labour and Parts subject to fair wear and tear and on the Customer's specified premises
- 3 Parts will be repaired or replaced at the Company's option. All defective parts permanently removed become the property of the Company and all replacements will become the property of the Customer

2. Customer Obligation

The Customer will

- 1 Ensure that the equipment is kept at the specified location and used in accordance with the suppliers' recommendations, i.e. a clean a.c. supply voltage, sufficient air space surrounding equipment, no vibration, etc. The magnetic media used is subject to particular restrictions for reliable operation, and is the specific responsibility of the named customer contact overleaf
- 2 Allow Company representatives access to the equipment and co-operate with the Company's efforts to diagnose the fault by reproducing the symptoms on request
- 3 Not tamper or in any way interfere with the Equipment in a way which could lead to possible damage or incursion of foreign material or remove the Equipment to a different location without written notification and approval
- 4 Pay promptly and within the terms stated any renewal fees due and, in the event of work done outside the scope of this agreement, additional fees levied for non-contracted services (Operator Error, Accidental Damage, False-Alarms, etc.)
- 5 Notify the occurrence of faults to the Company's Service Department giving reference numbers of this agreement and full particulars of the fault symptoms.

3. Response and Repair Times

The Company shall not be liable for any delay in the execution of this contract due to the non-availability of particular components or incidence of coincident calls to the service centre or by any other circumstance beyond the Company's control

4. Location and Removal of Equipment

All provisions and coverage of service under the contract can only commence after the Company has had the opportunity to inspect and examine the equipment as being capable of acceptance under contract. Furthermore any work necessary as a result is chargeable on a time and materials basis. Should the equipment be removed to a different location as provided for under clause 2.3, the Company reserves the right to undertake a similar inspection on the same basis.

5. Scope of Maintenance Coverage

The provisions of service under the contract are strictly limited to the diagnosis and repair of faults arising in the computer or peripheral hardware specified in the contract schedule. In particular no service or support is provided on operating systems, utility or application software. Ancillary equipment or software not covered by the contract will be removed or disconnected and the repair and tests conducted on the remainder

6. Fair Wear and Tear

The contract covers the incidence of failures and their repair under normal conditions of fair wear and tear. Electromechanical equipment, particularly printers used in heavy duty applications, may be subject to a surcharge. The Company will give notice to the Customer each year of partial equipment requiring reconditioning or replacement for the contract to continue.

7. Duration and Contract Charges

This agreement will continue for a minimum period of one year from the date stated and thereafter until cancelled by one month's written notice. Rates will be in accordance with the stated amount for the contract, and thereafter to be in accordance with the then-applicable scales which will only be increased by one month's period of notice. Payment for the full maintenance contract price is required in advance. Services provided outside the scope of this agreement will be charged at the hourly rate stated subject to three monthly review plus parts. All charges are subject to VAT.

8. Liability

- 1 The Company does not exclude or restrict its liability for death or personal injury arising from negligence
- 2 The Company does not restrict or exclude its liability for physical damage to tangible property arising from negligence in so far as such liability does not exceed £1,000,000
- 3 The Company shall have no liability whatsoever for the following, however caused and whether or not foreseeable:
 - (a) Loss or damage to data, consequential financial loss including lost profit, efficiency business, income and savings
 - (b) Other consequential loss or damage or third party claims (other than in all cases death or personal injury arising from negligence)

(b) Other consequential loss or damage or third party claims (other than in all cases death or personal injury arising from negligence)

- 4 Subject to the provisions of the preceding paragraphs the Company's liability (howsoever arising) in respect of goods and services provided hereunder shall be strictly limited to the value of the contract

9. Force Majeure

The Company shall not be liable for any delay or failure to carry out its obligations which are caused wholly or partly by strikes or any other labour disputes, fire, war, accident, Government action or any other cause beyond its control.

10. Law

This Contract will be governed and construed in all aspects according to English Law

This contract is subject to the group standard terms and conditions of sale, copies of which are available on application

A UK TPM FIRM

CUSTOMER SERVICE

SERVICE REFERENCES

- LEVEL 1** Engineer will attend customer's premises within 72 hours of fault being reported to UK Control Centre. No guaranteed repair time or replacement unit, but repair is normally effected within 48 hours, worst case repair will be 14 days or contract may be terminated and monies refunded.
- LEVEL 2** Engineer will attend customer's premises within 24 hours of fault being reported to UK Control Centre. No guaranteed repair time or replacement unit, but repair is normally effected within 48 hours, worst case repair will be 14 days or contract may be terminated and monies refunded.
- LEVEL 3** Engineer will attend customer's premises within 24 hours of fault being reported to UK Control Centre. Repair will be guaranteed within 5 days or replacement supplied.
- LEVEL 4** Engineer will attend customer's premises within 24 hours of fault being reported to UK Control Centre. Repair will be guaranteed within 3 days or replacement supplied.
- LEVEL 5** Engineer will attend customer's premises within 4 hours of fault being reported to UK Control Centre. Repair will be guaranteed within 24 hours or replacement supplied.

With levels 3, 4 and 5, if for any reason repair or replacement cannot be effected within the guaranteed period, the insurance policy is automatically triggered, which entitles the customer to rent a replacement machine from either , or outside sources, and the following payments will be made under the terms of the insurance:-

2% of the value of the equipment per day, with a maximum of 5% per week.

NON-CONTRACT TIME & PARTS SERVICE.

For customers not wishing to enter into a maintenance agreement, we do offer on-site repairs, our charges being as follows:-

Standard Call-Out fee £70 – this fee covers all travelling time and expenses.

Engineers time will be charged at £30 per hour on-site. Parts charged at current price lists.

JANUARY 1983

Continued

A UK TPM FIRM (Cont.)

THE SCHEDULE

Agreement No: _____

<p>A. Name and Address of Subscriber.</p> <p>Contact _____ Tel. No. _____</p>	<p>B. Location of Equipment.</p> 																																								
<p>C. The Equipment</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;"></th> <th style="width: 40%;">Unit</th> <th style="width: 20%;">Serial No.</th> <th style="width: 30%;">Value £</th> </tr> </thead> <tbody> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td></tr> <tr><td>8.</td><td></td><td></td><td></td></tr> <tr><td>9.</td><td></td><td></td><td></td></tr> </tbody> </table> <p>(serial Numbers MUST be quoted)</p>		Unit	Serial No.	Value £	1.				2.				3.				4.				5.				6.				7.				8.				9.				<p>D. Commencement Date</p> <p style="text-align: center;">/ / 19</p> <hr/> <p>E. Level of Service.</p> <p>Level 1 2 3 4 5</p> <p>(delete as applicable)</p> <hr/> <p>F. Charges (excluding VAT):</p> <p>i) Standing charge £ _____ per annum/quarter (delete as necessary)</p> <p>ii) Excess charge (current charge £ _____ per hour)</p> <p>iii) Heavy use charge for equipment operating at an annual rate in excess of 2000 hours. 2000 - 4000 hrs 50% of standing charge per annum 4000 - 6000 hrs 100% of standing charge per annum.</p>
	Unit	Serial No.	Value £																																						
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<p>G. Amendments to Agreement</p>	<p>H. Subscribers Proposal</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 70%; border: 1px solid black; padding: 2px;">Order No. (Or Ref.): _____</td> <td style="width: 30%;"></td> </tr> </table> <p>The subscriber or his authorized representative having read the agreement overleaf requests the company to maintain and service the Equipment in accordance with the terms and conditions thereof. [PLEASE DO NOT SIGN WITHOUT READING AGREEMENT OVERLEAF]</p> <p>Signature _____ Position _____ (for and on behalf of the Subscriber) Date _____</p> <p>Signature of Witness _____ Position _____</p> <p>Name and address of Witness _____</p>	Order No. (Or Ref.): _____																																							
Order No. (Or Ref.): _____																																									
<p>I. Company's Acceptance</p> <p>Approved by _____ Position _____ Date _____ (For and on behalf of _____)</p>																																									

For Service please phone

All other communications in respect of this Agreement should be addresse

MAINTENANCE CONTRACT

CONTRACT NUMBER: _____ YOUR PURCHASE ORDER NUMBER: _____

CUSTOMER'S NAME _____
AND ADDRESS: _____

SERIAL NUMBERS: _____

CHARGE PER _____ per annum

TOTAL ANNUAL PAYMENT: _____

PAYMENT TERMS: _____

CONDITIONS OF SERVICE:

Service under this Contract consists of _____ routine maintenance visits per year; all breakdown calls; parts as required, excepting those necessitated as a result of damage caused other than by fair wear and tear.

Paper rolls and ribbons are the sole responsibility of the customer.

Major workshop overhauls, with the customer's full knowledge and consent, will be charged separately.

This Contract shall continue in effect until such time as one month's notice of termination, in writing, is given by one party to the other. Any refund due to the customer from _____ will be made on a pro rata basis, calculated on the remaining full months for which payment has been made.

All charges are exclusive of Value Added Tax. VAT registration no: _____

for and on behalf of

Designation: _____

for and on behalf of

Date _____

Company Registration No _____ England

A MAJOR UK TPM FIRM

MAINTENANCE OF EQUIPMENT

STANDARD TERMS AND CONDITIONS

1.0 The Supplier shall provide the Maintenance Service to the customer in respect of The Equipment comprised in each Schedule for a period of one year from the day following receipt of the Annual Maintenance Premium.

2.0 The Supplier will provide preventative and on-call remedial hardware maintenance to maintain The Equipment in satisfactory operating condition between 09.00 and 17.00 for five working days per week excluding Saturdays Sundays and Statutory holidays. (The Basic Period of Maintenance). The response time is detailed in the Schedule(s).

2.1 Any services requested by the Customer outside the stated scope of these Standard Terms and Conditions will incur additional charges at the current rates of The Supplier. Chargeable services will include on-call and remedial maintenance outside The Basic Period of Maintenance. The Supplier reserves the right to make additional charges for on-site services requested by The Customer within the basic period of maintenance where no remedial or preventive maintenance is necessary or possible.

3.0 The Supplier shall determine the frequency and duration of preventive maintenance where necessary. The Customer shall be responsible for maintaining suitable electrical and environmental conditions for the Equipment.

4.0 Parts of The Equipment which become unserviceable in normal use will at the Suppliers option either be repaired or replaced by appropriate parts on an exchange basis.

5.0 The Maintenance Service does not include:

5.1 Supplies consumables media or accessories unless detailed in the Schedule.

5.2 Damage resulting from accident transportation neglect misuse failure of electrical supply environmental control causes other than normal use or responsibility for customer data or programs.

5.3 Furnishing supplies or accessories repair of damage caused by any person other than Supplier personnel moving interfering with tampering with or attempting to maintain The Equipment.

6.0 The Supplier shall not be liable for any delay in the performance or non-performance of its obligations due to any act omission or state of affairs beyond its control.

7.0 Neither party shall be liable to the other for any delay loss damage or injury caused by Acts of God strikes civil commotion war fire explosions sabotage storm flood, earthquake and fog.

8.0 The Customer will notify The Supplier immediately of any circumstances which might give rise to a claim under The Supplier's insurance policies.

8.1 The Supplier has insured against its legal liability in respect of bodily injury or death and loss of or damage to property caused by any equipment or articles sold repaired or maintained by The Supplier.

9.0 The Supplier may perform its obligations through agents.

10.0 If any dispute or difference shall arise between The Customer and The Supplier it shall be governed by English Law. In the event that arbitration is required then it shall be a single arbitrator in London and shall be appointed by the Institute of Electrical Engineers.

11.0 Any Schedule must be signed by an authorised signatory Company Secretary or Director of both parties before the Maintenance Services shall commence.

Continued

A GERMAN TPM FIRM

Nr. _____

Zwischen

— nachfolgend „Kunde“ genannt —

und

wird folgender Wartungsvertrag geschlossen:

1. Geräte

„...“ übernimmt die Wartung folgender Geräte:

Zahl: **Modell:** **Serien-Nr.:** **Genauer Aufstellungsplatz:**

Continued

A GERMAN TPM FIRM (Cont.)

2. Umfang der Wartung

- 2.1. Die von übernommene Leistung umfaßt die vorbeugende Wartung sowie Entstörung und Reparaturen innerhalb der normalen Arbeitszeit. Verlangt der Kunde derartige Arbeiten außerhalb der normalen Arbeitszeit, so werden diese Mehrkosten gesondert in Rechnung gestellt.
- 2.2. Die vorbeugende Wartung erfolgt bei den in Absatz 2.4. bezeichneten Wartungsbesuchen und umfaßt die übliche Reinigung, Schmierung und Durchsicht der Geräte auf Funktionfähigkeit.
- 2.3. Reparaturen und Entstörungen erfolgen ebenfalls bei den in Absatz 2.4. bezeichneten Wartungsbesuchen sowie auf besondere Anforderung des Kunden. Im Rahmen der Reparatur- und Entstörungsleistungen nimmt Vollwood die erforderlichen Arbeiten vor und stellt die erforderlichen Ersatzteile zur Verfügung. Ferner fallen folgende Leistungen nicht unter Reparatur- und Entstörungsleistungen:
- (a) Generalüberholungen,
 - (b) Hauptteile:
 - (c) Schönheitsreparaturen,
 - (d) Arbeiten, die nicht an den zu wartenden Geräten selbst vorgenommen werden,
 - (e) Änderungen der Geräte,
 - (f) Zurverfügungstellen und Einbau von Zubehör oder Verbrauchsmaterial,
 - (g) Zurverfügungstellen von Betriebsmitteln für die Geräte,
 - (h) Änderung des Aufstellungsortes,
 - (i) Reparaturen oder Entstörungen, die erforderlich werden wegen unsachgemäßer Bedienung, mißbräuchlichen Einsatzes oder Verwendung ungeeigneter Betriebsmittel oder Verbrauchsmaterialien, Eingriffen oder Änderungen nicht von beauftragter Techniker, Einwirkung noner Gewalt, Herstellungsmängeln, Einwirkungen auf die Geräte von dritter Seite, Verschulden des Kunden oder seiner Leute, Umweltbedingungen am Aufstellungsort, Stromversorgungsanlage, benutzten Zubehörs oder angeschlossener Geräte.
- 2.4. Wartungsbesuche werden durchgeführt nach Ablauf von Stunden Laufzeit der Geräte, maximal mal jährlich.
- 2.5. Ausgetauschte Teile werden Eigentum von
- 2.6. Soweit Reparaturen nicht an Ort und Stelle durchgeführt werden können, behält sich vor, Reparaturen in den Werkstätten von Vollwood auszuführen. Erfolgt der Transport durch Mitarbeiter, ist die Haftung für das Transportrisiko auf den Zeitwert des transportierten Gerätes beschränkt. Ansonsten gehen Transportrisiko und Transportkosten zu Lasten des Kunden.

Continued

A GERMAN TPM FIRM (Cont.)

3. Wartungsgebühr

- 3.1. Die Wartungsgebühr beträgt pro Jahr/Gerät
für das 1. und 2. Gerät je DM
ab dem 3. bis 5. Gerät je DM
ab dem 6. Gerät je DM
- 3.2. Die reduzierte Gebühr ab 3. Gerät versteht sich unter der Bedingung, daß die Geräte räumlich so nahe zueinander aufgestellt sind, daß deren Wartung in einem einheitlichen Wartungsvorgang durchgeführt werden kann
- 3.3. Die gesamte Wartungsgebühr von DM pro Jahr ist jeweils im voraus fällig und bis zum 3. Tag des betreffenden Monats zuzüglich Mehrwertsteuer zu entrichten.
- 3.4. Die Geltendmachung von Zurückbehaltungsrechten oder die Aufrechnung mit irgendwelchen Gegenforderungen des Bestellers ist ausgeschlossen, es sei denn, wir haben die Ansprüche des Bestellers schriftlich anerkannt oder die Ansprüche des Bestellers sind rechtskräftig festgestellt.
- 3.5. In der Wartungsgebühr sind Reisekosten bis 25/50/75/100 km von folgenden Niederlassungen von enthalten: Berlin, Bremen, Bielefeld, Düsseldorf, Frankfurt, Freiburg, Göttingen, Hamburg, Hannover, Mannheim, München, Nürnberg, Siegen, Stuttgart.
Übersteigt die Entfernung zum Kunden von einer der genannten Niederlassungen 25/50/75/100 km, so werden die Reisekosten und Spesen nach der jeweils gültigen Service-Preisliste von Vollwood in Rechnung gestellt.
- 3.6. Die Wartungsgebühr beruht auf dem Lohn- und Preisniveau beim Abschluß des Vertrages. Lohnerhöhungen und Erhöhungen der Preise für Ersatzteile werden von unter Einhaltung einer Ansagefrist von einem Monat, an den Kunden weitergegeben.

4. Mitwirkung des Kunden

- 4.1. Der Kunde hat und seinen Mitarbeitern sicheren und ungehinderten Zugang zu den zu wartenden Geräten zu geben. Er stellt den erforderlichen Platz für die Wartungsarbeiten, für das Wartungspersonal, für Wartungsmaterial und für Ersatzteile zur Verfügung und stellt die notwendigen Arbeitsbedingungen her.
- 4.2. Aufwendungen, die aus unnötigen Alarmierungen des Störungsdienstes entstehen, sowie aus Verzögerungen der Arbeitsaufnahme bzw. bei der Durchführung des Störungsdienstes, die in den Verantwortungsbereich des Kunden fallen, werden nach Zeitaufwand und zusätzlichem Arbeitsaufwand zu der jeweils gültigen Service Preisliste in Rechnung gestellt.

5. Generalüberholung

- 5.1. In gewissen Abständen, die sich nach Laufzeit, Beanspruchung und Art der Geräte richtet, ist eine Generalüberholung erforderlich. zeigt dem Kunden an, wenn es eine Generalüberholung für notwendig hält. Läßt der Kunde innerhalb von zwei Monaten nach einer solchen Anzeige keine Generalüberholung vornehmen, so erlischt für die Verpflichtung zur Wartung des Gerätes.
Auf Anforderung wird einen Kostenvoranschlag erstellen.
Der Transport der Geräte erfolgt auf Kosten und Gefahr des Kunden.

A GERMAN TPM FIRM (Cont.)

6. Haftung

Die Haftung von _____ gemäß diesem Vertrag ist wie folgt begrenzt:

_____ ausschließlich haftbar für von ihr zu vertretende, bei der Wartung entstandene direkte Schäden an den gewarteten Geräten. Die Haftung für indirekte und Folgeschäden ist ausgeschlossen. Jede Haftung ist der Höhe nach begrenzt auf den Zeitwert des Gerätes.

- 6.1. Soweit für Schäden irgendwelcher Art die Haftpflichtversicherung von _____ eintritt, wird _____ die Auszahlung von Versicherungsbeträgen an den Kunden veranlassen bzw. bereits empfangene Versicherungsbeträge an den Kunden weiterleiten oder, soweit nach den Versicherungsbedingungen zulässig, die Ansprüche gegen die Versicherung an den Kunden abtreten; jede weitere Haftung von _____ ist ausgeschlossen.
- 6.2. Soweit die Haftpflichtversicherung von _____ nicht eintritt, ist _____ ausschließlich haftbar für von ihr zu vertretende, bei der Wartung entstandene direkte Schäden an den gewarteten Geräten. Die Haftung für indirekte und Folgeschäden ist ausgeschlossen. Jede Haftung ist der Höhe nach begrenzt auf den Zeitwert des Gerätes.

7. Vertragsdauer

- 7.1. Dieser Vertrag beginnt am Er gilt für die Dauer eines Jahres und verlängert sich automatisch um je ein weiteres Jahr, wenn er nicht mit dreimonatiger Frist zum Ende des ersten oder eines folgenden Vertragsjahres schriftlich gekündigt wird.
- 7.2. Eine fristlose Kündigung bedarf der vorherigen eingeschriebenen Abmahnung mit zweiwöchiger Frist. Nach fruchtlosem Ablauf dieser Frist kann die Kündigung per Einschreiben ausgesprochen werden.

8. Verschiedenes

- 8.1. Rechte aus diesem Vertrag können nur mit Zustimmung von _____ abgetreten werden.
- 8.2. Ersatzteile werden nach Maßgabe von _____ allgemeinen Lieferbedingungen geliefert, jedoch im Rahmen von Paragraph 2.3. kostenlos.
- 8.3. Gerichtsstand ist Frankfurt am Main.
- 8.4. Soweit in diesem Vertrag nicht anders geregelt und bestimmt, gelten ergänzend die Allgemeinen Lieferungs- und Verkaufsbedingungen sowie die Allgemeinen Servicebedingungen

9. Sondervereinbarungen

.....
Ort und Datum

.....
Ort und Datum

.....
Unterschrift und Stempel des Kunden

VEDLIGEHOLDELSKONTRAKT

mellem

NR. _____

_____ og _____

(heretter betegnet «kunden»)

(heretter betegnet «IN»)

1. OPTEGNELSE AF ANLÆG OG PRISER

Nærværende kontrakt omfatter følgende anlæg eller udstyr:

Placeringsadresse:

Kontaktperson:

Reference:

Telefon nr.:

FØRSTE IBRUGTAGNINGSDAG:

ANTAL	BETEGNELSE	SERIE NR.	PRIS PR. STK.	BELØB IALT PR. MÅNED
Tillæg for kortere tilkaldetid			kr.	
Vedligeholdelsesafgift pr. måned ved pristal			excl. moms kr.	

Det forudsættes, at udstyret ikke er ældre end 5 år, samt at anlægget eller udstyret er regelmæssigt vedligeholdt og i anmærkningsfri stand, når kontrakten træder i kraft. IN er berettiget til for kundens regning at udføre en indledende kontrolservice og udføre eventuelle nødvendige udbedringer.

Priserne er baseret på det i bilag I nævnte forbrugerprisindex, der er gældende på datoen for kontraktens underskrift.

19820903 KW/km

Continued

2. MODIFIKATION AF ANLÆG

Kunden er berettiget til at tilslutte anlæg/udstyr af andet fabrikat. Medfører tilføjelsen ændrede vedligeholdelsesforhold, kan kontrakten tages op til forhandling. Såfremt en sådan forhandling ikke fører til en løsning, kan kontrakten opsiges af IN med 1 måneds varsel.

Kunden har ret til at flytte anlægget/udstyret til andre lokaler i Danmark. Kunden er pligtig til at betale de vedligeholdelsespriser, som er berettigede af den nye placering. Kunden er pligtig at meddele flytning til IN.

3. VEDLIGEHOLDELSENS OMFANG OG DE TIDSMÆSSIGE RAMMER HERFOR

IN er pligtig at yde vedligeholdelsesservice for at holde anlæg/udstyr i god arbejdsstand, omfattende:

- Reparation efter tilkald, herunder udskiftning af defekte dele, samlet op til kr. 2.000,- pr. reparation, snarest muligt efter kundens fejlmelding.
- Reservedele leveres på ombygningsbasis og vil være nye eller fungere som nye i maskinerne. Udskiftede dele tilhører IN.
- IN skal have uhindret adgang til at udføre service på anlæg/udstyr, og kunden skal stille fornøden testtid m.m. vederlagsfrit til rådighed, også hvor dette omfatter testtid på maskiner, der ikke er omfattet af vedligeholdelsesaftalen, men fungerer i forbindelse med maskinerne under vedligeholdelsesaftalen.
- Alle driftforstyrrelser skal hurtigst muligt anmeldes til IN's serviceafdeling:

SJÆLLAND: (02) 62 22 88

JYLLAND/FYN: (06) 82 46 88

Vedligeholdelsen omfatter ikke:

- a. Elektriske installationer uden for anlæg/udstyr eller vedligeholdelse af tilbehør, udstyr, maskiner eller andre anordninger, der ikke er omfattet af kontrakt med IN.
- b. Reparation af skader, som skyldes ulykke transportuheld, forsømmelighed, misbrug, betjeningsfejl, svigtende elektricitetsforsyning, manglende luftkonditionering eller fugtighedskontrol, idles eller slukningsmidler, samt andre årsager end normal brug.
- c. Forbrugsartikler som hulkort, magnetbånd, disketter, kodebånd, farvebånd og blanketter, øjehæller skader, som skyldes, at kunden anvender uegnede forbrugsartikler. IN giver på forlangende skriftlig specifikation for egnede forbrugsartikler.
- d. Ændring af maskinspecifikationer, flytning eller af- og påmontering af ekstraudstyr, beordret af kunden. Udskiftning af skrivelser, printhæmre o.l., der alene kan hentes til slitage.
- e. Operatørarbejde, herunder rengøring og rensning pålagt operatøren i henhold til en af leverandøren udleveret skriftlig instruks.

Der må ikke, så længe nærværende kontrakt er i kraft, uden IN's samtykke udføres vedligeholdelses- eller reparationsarbejde eller ændringer i eller ombygninger af maskinerne af andre end IN's medarbejdere.

4. TIDSMÆSSIGE RAMMER FOR VEDLIGEHOLDELSE

Det i bilag I nævnte grundgebyr dækker vedligeholdelse af IN's normale arbejdstid, mandag - fredag kl. 8.00-16.00 - helligdage undtaget.

Fejlfhjælpende vedligeholdelse påbegyndes, (dvs. rejsen påbegyndes), normalt senest 8 arbejdstimer efter fejlmeldingens modtagelse hos IN.

5. PRISER/BETALINGSBETINGELSER

Priserne i nærværende kontrakt er baseret på betaling årsvis forud. Dvs. forfaldsdagen svarer til faktureringsdagen. Ved forsinket betaling beregnes rente = diskontoen + 2% pr. påbegyndt måned.

Prisændringer på grund af ændring i det benyttede reguleringspristal, jvf. bilag I, foretages uden forudgående varsel. IN er berettiget til uden forudgående varsel at regulere priser, jvf. regulering af pristal.

I tilfælde af, at leverandørprisstigninger på reservedele, f.eks. som følge af kursændringer eller lignende på 5% eller derover, er IN berettiget til uden varsel at forhøje abonnementsafgiften (= 100) med 2/5 af leverandørforhøjelsesprocenten.

Opfylder kunden ikke de aftalte betalingsbetingelser, eller misligholder kunden på anden måde kontrakten, herunder standser sine betalinger, har IN ret til øjeblikkeligt at betragte kontrakten som bortfaldet, dvs. at standse ydeligere serviceydelser, og IN's tilgodehavende skal straks betales.

6. MANGLER - REKLAMATION OG ANSVAR

I tilfælde af mangelfuld leverance fra IN, er IN berettiget til at foretage udbedringsarbejde.

Ved vedligeholdelse, forandringer og demonteringer af det omhandlede udstyr, som sker uden IN's samtykke, er IN fritaget for ethvert ansvar.

IN er uden ansvar for forhold, der skyldes force majeure, herunder f.eks. arbejdskonflikter, valutarestriktioner og indskrænkninger i energitilførsel og mangler ved leverancer fra underleverandører eller forsinkelse af sådanne leverancer som følge af de i denne bestemmelse omhandlede forhold.

I intet tilfælde har IN ansvar for drifttab, tab af arbejdsfortjeneste, dagbøder eller andre indirekte tab, påført kunden eller andre.

Ved fejl eller forsinkelse i forbindelse med en leverance eller delleverance eller udførelse af serviceydelse, kan kundens evt. erstatningskrav aldrig overstige den mangelfulde eller forsinkede leverances fakturaværdi.

Denne ansvarsbegrænsning gælder dog ikke, hvis IN eller IN's folk har udvist forsæt eller grov uagtsomhed.

7. PRODUKTANSVAR

IN har intet ansvar for skader på fast ejendom eller løsøre i det tilfælde, hvor skaden indtræder hos kunden eller tredie-mand. IN har heller ikke ansvar for skade på den del af kundens samlede anlæg, som ikke er omfattet af nærværende kontrakt. IN har således heller ikke ansvar for skader forvoldt ved uhensigtsmæssig brug af det leverede. I intet tilfælde har IN ansvar for driftstab, tabt arbejdsfortjeneste, dagbøder eller andre indirekte tab, påført kunden eller andre. Denne ansvarsbegrænsning gælder dog ikke, hvis IN eller IN's folk har udvist forsæt eller grov uagtsomhed. I den udstrækning, IN måtte blive pålagt produktansvar overfor tredjemand, er kunden forpligt til at holde IN skadesløs i det omfang, som IN's ansvar er begrænset efter nærværende vedligeholdelseskontrakt.

8. OPSIGELSE OG OPHØR

Nærværende vedligeholdelseskontrakt er bindende i 12 måneder, hvorefter den kan opsiges ved anbefalet skrivelse af en af parterne med 3 måneders varsel. Enhver af parterne kan dog uden varsel hæve aftalen, hvis den anden part i væsentlig grad tilsidesætter bestemmelserne heri, herunder ikke overholder betalingsbetingelserne nævnt i punkt 4, eller lader vedligeholdelses- eller reparationsarbejde ske uden IN's samtykke. Meddelelse herom skal ske ved anbefalet skrivelse.

9. TAVSHEDSPLIGT

IN's personale skal iagttage ubetinget tavshed overfor uvedkommende med hensyn til oplysninger vedrørende kundens eller andres forhold, som de kommer til kendskab om i forbindelse med de i denne kontrakt omhandlede leverancer, tjenesteydelser m.v.

10. TVISTIGHEDER

Parterne forpligter sig til at løse eventuelle tvistigheder ved forhandling. Såfremt en sådan forhandling ikke fører til resultat, løses tvistighederne ved voldgift efter Dansk Ingeniørforenings regler under anvendelse af dansk ret. Voldgiftsrettens kendelse er bindende og kan ikke ankes til noget andet organ eller nogen anden domstol.

11. ØVRIGE VILKÅR

IN har ret til at overdrage deres rettigheder og forpligtelser i henhold til nærværende kontrakt til tredjemand. Aftalen træder i kraft den _____. Dog under forudsætning af begge parter underskrift før dette tidspunkt. Bindende underskrift kan kun ske af en tegningsberettiget repræsentant for hver af parterne.

For _____

(Sign. m. tegningsret)

dato

sted

(Sign. m. tegningsret)

dato

sted

A SCANDANAVIAN TPM FIRM (Cont.)

SPECIFIKATIONER VEDRØRENDE PRISER m.v.

Priser for ændring af de tidsmæssige rammer for vedligeholdelsen paragraf 4

Ved arbejde på anlægget uden for det aftalte tidsrum for vedligeholdelsen, jvf. bilag II, betales normaltimestakst + et tillæg på 50% på hverdage og 100% på lørdage, søndage og helligdage for såvel arbejds- som transporttid.

Normaltimestaksten er ved pristal _____ pr. mandtime.

Valuta og kurs

Danske kroner.

Prisændring

Vedligeholdelsesafgiften og timetaksterne reguleres proportionalt med det af Danmarks Statistik offentliggjorte Forbrugerprisindex for varer og tjenester excl. husleje.

Vedligeholdelsesafgifter og timetakster reguleres hver 1. juli og 1. januar baseret på ovennævnte pristal i hhv. april og oktober. Priserne ændres ved andre tilkaldetider efter følgende retningslinier:

Tilkaldetid	Prisændring	Dog min. kr.
8 timer	+ 0%	
4 timer	+ 15%	500/pr. år
2 timer	+ 30%	1000/pr. år
1 time	+ 60%	2000/pr. år

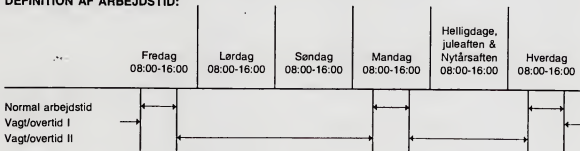
vagtordning

Til afhjælpning af driftsforstyrrelser uden for normal arbejdstid, kan Inmentic i rimeligt omfang tilbyde de af vore kunder, som hartegnet vedligeholdelseskontrakt, en vagtordning efter følgende retningslinier:

BESTILLING:

Kunderne kan med 1 uges varsel bestille vagt i vilkårlige kombinationer af hele dag- og/eller nattevagter.

DEFINITION AF ARBEJ DSTID:



En vagt regnes enten
08:00-16:00 = 8 timer
eller
16:00-08:00 = 16 timer

VAGT TID PRISER

Vagt I:

15% af normal timepris

Vagt II:

40% af normal timepris

Benyttede vagthavende teknikere faktureres:

Overtid I: 150% af normal timepris

Overtid II: 200% af normal timepris

Standardudkaldstillæg: 2 x normal timepris for serviceingeniør

En vagt beregnes mindst 16 timer på hverdage og mindst 24 timer på helligdage.

A MAJOR EUROPEAN TPM FIRM

PREVENTATIVE & REMEDIAL MAINTENANCE AGREEMENT

THIS AGREEMENT is made the _____ day of _____ 198 (THE AGREEMENT DATE)

and _____ OF _____

('the Customer') whereby _____ agrees to provide and the Customer agrees to pay for the maintenance services described herein for the equipment and features (hereinafter called the EQUIPMENT) listed in the Schedule hereto subject to the terms and conditions contained herein.

1. **TERM**
The initial term of this Agreement shall be _____ years commencing on the Agreement date and shall continue thereafter from year to year until terminated by either _____ or the Customer giving to the other not less than 90 days notice in writing such notice to expire not earlier than the end of the initial term.
2. **CHARGES**
a) The Customer shall make the first payment (as set out in the schedule attached hereto) upon signing this Agreement and subsequently all further payments by bankers order in advance each year on the anniversary thereof.
b) The Annual Charge to be reviewed once annually by _____ and may be changed upon 30 days written notice to the Customer.
c) Any other charges that may fall due for work performed by _____ for the Customer shall fall due for immediate payment upon receipt of invoice.
d) _____ reserves the right to vary its per call rates for parts materials to the customer thereof.
e) It is agreed that all maintenance charges are exclusive of VAT and all other duties, levies and taxes (other than taxes based solely on the profits or gains of a company) in respect of its services hereunder or this Agreement itself, all of which shall, in so far as they are paid by _____ be reimbursed by the Customer on demand.
3. **SERVICES PROVIDED**
a) _____ agrees to provide maintenance services to keep the Equipment in good working order and according to the manufacturer's specifications. The service will include unscheduled remedial maintenance and scheduled preventative maintenance.
b) The Annual Charge shall entitle the Customer to scheduled preventative maintenance, and remedial maintenance, which will be performed during an agreed period between the hours 0900-1700 Monday - Friday, except Bank, Statutory and Public holidays. These are defined as normal working hours.
c) Preventative maintenance schedules will be decided by _____ and preventative maintenance and remedial maintenance will include adjustment and parts replacements as necessary.
d) Parts used by _____ on the Equipment in performance of its duties hereunder will be new or equivalent to new, and the parts removed will become the property of _____ Title to supplied parts will pass to the Customer when payment has been received.
e) The Service Engineer will maintain a performance record with respect to each unit of equipment showing nature and time of any malfunction and repair. This record will be signed by authorised representatives of the Customer and
4. **EXCLUSIONS**
a) The maintenance service provided under Clause 3 above does not include:
i) Electrical work external to the Equipment,
ii) Repair of damage resulting from accident, transportation, neglect or misuse; failure of electrical power, air conditioning or humidity control, or causes other than ordinary use.
iii) Catastrophic or endemic failures due to manufacturer or design defects over which _____ has no control.
iv) The furnishing of supplies or accessories producing or refitting the Equipment making specification changes or performing services connected with the location of the Equipment or adding to or removing accessories attachments safety changes or other devices.
v) Service to the Equipment after it has been altered or added to or connected by mechanical or electrical means to any other machine or device without the previous written agreement of _____.
vi) Systems engineering services, programming and operating procedures, of any sort.
vii) Service to the Equipment if it is located, without _____ prior written consent, at any place other than that stated in this Agreement.
b) If persons other than _____ or its designated service representatives shall repair, modify or perform any maintenance service on the Equipment or any part thereof, and as a result further maintenance service by _____ is required to restore the Equipment or any part thereof to good operating condition, _____ shall have the option either to provide such service at its per call rates or to terminate or discontinue this agreement, shall in any event not be liable for any damage - whatsoever - to the Customer or any equipment due to any event caused by _____ maintenance.
5. **MAJOR OVERHAUL**
If in the opinion of _____ a major overhaul of the Equipment becomes necessary at any time then _____ shall notify the Customer in writing and within 30 days shall submit an estimate of the costs thereof. Should the Customer decline to have the

- Equipment overhauled at his own expense within 30 days of date of estimate reserves the right to exclude the said Equipment from this Agreement by serving written notice upon the Customer and returning to the Customer the appropriate unspent portion of the maintenance charge and shall perform all further work on a per call basis against the SMS normal terms of business that may then apply.
6. **ACCESS TO EQUIPMENT**
The Customer will ensure that _____ shall have full and free access to the Equipment to provide service thereon, and that adequate storage space for parts parts and adequate working space including heat, light, ventilation, electric current and outlets are provided for the use of _____ maintenance personnel. These facilities will be provided within a reasonable distance and be at no charge to _____.
 7. **ENGINEERING AND SAFETY CHANGES**
a) _____ will control and install all engineering changes deemed necessary by the Equipment Manufacturer or _____ unless otherwise requested by the Customer in writing.
b) _____ will control and install all safety changes deemed necessary by the Manufacturer. If the Customer refuses to permit installation of a safety change, or removes one already installed, _____, at its option, discontinues maintenance services until the hazard has been corrected.
c) If the Customer requests installation of engineering changes, including safety changes, at times other than during normal working hours, _____ reserves the right to charge for such service at per call rates then in force and to schedule same at its discretion.
 8. **DISCLAIMER**
Sole liability with respect to provision of the maintenance and performance of other obligations herein contained shall be as stated herein and in no event shall SMS be liable to the Customer or any third party for any incidental loss or damage arising out of the Customer's or any third party's use or loss of use of the equipment or for any failure by _____ to provide the maintenance or perform its other obligations hereunder if such failure or non-performance is due to any cause whatsoever beyond _____ reasonable control. In the event of any liability for direct physical injury to persons or property relating to the equipment and the performance by _____ of its obligations hereunder then such liability is limited in respect of such injury in the sum of £100,000.
 9. **TERMINATION**
_____ shall be entitled to terminate this Agreement without notice:
a) If the other party shall commit any act of bankruptcy or have a receiving order made against it or call a meeting or make any arrangement or composition with its creditors or if a petition to wind up the other party shall pass a resolution for voluntary liquidation (except for the purpose of amalgamation or reconstruction) or if a receiver or manager of any other party's assets shall be appointed; or
b) If the other party shall commit any major breach of its obligations hereunder.
c) If payments are not made promptly.
 10. **NON-SOLICITATION OF EMPLOYEES**
Neither _____ nor the Customer shall employ or otherwise contract for the services of any present or future employee of the other party who has the consent of the other party (or 11) after the earlier of a) the termination of such employee's employment, or b) the termination of this Agreement. No offer or other form of solicitation of employment shall be made at any time when the employment of such person is prohibited by this Agreement. Damages under this clause will not exceed ten (10) per cent of the gross value of the monies due under this Agreement or twelve (12) months salary of the replacement employee plus all recruiting expenses whichever is greater.
 11. **GENERAL**
a) The Customer represents and warrants that he is and will during the term of this Agreement remain the owner of the Equipment or, if not the owner, that he has authority to enter into this Agreement.
b) Any notice or other communication given hereunder shall be in writing and mailed to the address of _____ or the Customer respectively shown on this Agreement or to such other address as such party shall have the address designated by notice in writing. Any notice given hereunder shall be validly given if sent by first class post to the address of _____ or the Customer contained herein or such other address as either shall inform the other of in writing and such notice shall be deemed served within 48 hours of despatch.
c) This Agreement shall be governed by the laws of England and constitutes the entire Agreement between _____ and the Customer with respect to the furnishing of maintenance service.
d) The foregoing terms and conditions shall prevail notwithstanding any variance with the terms and conditions of any order submitted by the Customer for the repair and maintenance of the Equipment.

THE SCHEDULE TO MAINTENANCE AGREEMENT NUMBER _____

EQUIPMENT			SERIAL No.
Description	Type	Model	
EQUIPMENT LOCATION		PREVENTATIVE MAINTENANCE FREQUENCY	RESPONSE TIME
Tel. No. _____ Ext. _____		<input type="text"/> SITE VISITS PER ANNUM	<input type="text"/> HOURS
ANNUAL MAINTENANCE CHARGES			
<input type="text"/> IN ADVANCE		PER CALL RATES FOR WORK EXCLUDED FROM THE ANNUAL MAINTENANCE CHARGE	
		0900-1700 MONDAY TO FRIDAY <input type="text"/>	per hour { Minimum charge one hour excluding travel
		0900-1700 SATURDAY/SUNDAY <input type="text"/>	per hour
		LEGAL HOLIDAYS <input type="text"/>	per day (8 hours)
			Extra time pro rata
		MILEAGE CHARGE <input type="text"/>	per mile
PARTS These listed replacement parts are not included in the annual maintenance charge.			

FOR H.O. USE ONLY

	INVOICE No.	AMOUNT	DATE	Signed	Date
1.	_____	_____	_____	For Customer
2.	_____	_____	_____
3.	_____	_____	_____	Signed	Date
4.	_____	_____	_____	For
5.	_____	_____	_____

A UK TPM FIRM (TERMINALS)

ANNUAL MAINTENANCE AGREEMENTS

Two service agreements are available:

Agreement	-	T
Agreement	-	TS

Single terminal items can be added and identified by serial number on the terminal agreement, but a configuration specification is required for the TS agreement.

A system service price is calculated for each configuration in the system range and a total service charge will be quoted for these configurations (including mass storage media). The individual prices for terminal products can also be stated separately.

All rates quoted are for 12 months in advance payment and additional rates are levied for customers wishing to pay quarterly or monthly.

The current service response is offered on a best endeavours basis and is envisaged to be same or next day depending upon circumstance.

There are no constraints on how many hours a customer uses the equipment but if engineering standby is required for multi-shift cover, the hourly rates are charged. If an engineer is called out during these hours then the current hourly engineer service charge is levied together with the related uplift factors according to the timeframe circumstance, i.e., evenings, weekend or bank holidays, etc. All parts used during out of hours fault calls are covered by the protection policy.

If the customer makes an erroneous fault call, then will levy a charge to cover the cost of that call. Per call rates are also applicable to users who wish to have preventive maintenance carried out outside of normal working hours.

Contract commencement is only upon acceptance of a working system going onto contract. at its discretion, reserves the right to carry out any pre-contact inspection and any work considered necessary resulting from the findings will be charged at the current per call rates before contract commencement.

This is one of the many services from

Call us on for further details.

Continued

A UK TPM FIRM (TERMINALS) (Cont.)

LSI - 11 SYSTEMS

11/03 SYSTEMS, KD11-HD plus		Annual Maintenance
3/140	D140,DLV11-J,H9270,H780-J	1226.00
3/1616	ML1616,DLV11-J,H9270,H780-J	1914.00
3/1648	ML1648,DLV11-J,H9270,H780-J	2018.00
3/1696	ML1680,DLV11-J,H9270,H780-J	2239.00
3/220	D120 DD,DLV11-J,H9270,H780-J	1322.00
3/L01	RLV11,RL01,DLV11-J,BDV11,H9273-A,H780-J	1200.90
3/L02	RLV21,RL02,DLV11-J,BEV11,H9273-A,H780-J	1200.90
3/X02	RXV21,DLV11-J,MRV11-AA,H9270,H780-J	751.68
11/23 SYSTEMS, KDF11-HF plus		
23/140	D140,DLV11-J,H9270,H780-J	1398.80
23/1616	ML1616,DLV11-J,H9270,H780-J	2086.80
23/1648	ML1648,DLV11-J,H9270,H780-J	2190.80
23/1696	ML1680,DLV11-J,H9270,H780-J	2411.80
23/220	D120 DD,DLV11-J,H9270,H780-J	1494.80
23/3001	ML300,DLV11-J,MRV11-C,M03	3295.90
23/3002	ML300,D9766,DLV11-J,MRV11-C,M03	5505.90
23/801	ML80,DLV11-J,MRV11-C,M03	2411.90
23/802	ML80,DLV11-J,MRV11-C,M03	2411.90
23/L01	RLV11,RL01,DLV11-J,BDV11,H9273-A,H780-J	1573.70
23/L02	RLV21,RL02,DLV11-J,BDV11,H9273-A,H780-J	1373.70
23/X02	RXV21,DLV11-J,MRV11-C,H9270,H780-J	924.50

This is one of the many services from

Call us on _____ for further details.

Continued

A UK TPM FIRM (TERMINALS) (Cont.)

TERMINALS

Annual Maintenance

8003	Newbury Labs v.d.u.	112.00
ANADEX	Anadex 9500 printer/plotter	150.00
BIT PAD	Digitising magnetic pad	150.00
CALCOMP	Calcomp flat-bed plotter	550.00
DS 180	Datasouth 180 cps printer	150.00
DIGIVISION	Digivision colour monitor	132.00
GE 20/30	30 c.p.s desk-top printer	105.00
GE 310	300 c.p.s. printer	374.00
GE 340	300 c.p.s. printer	479.00
LA120	120 c.p.s. bi-direct upright printer	222.00
LA180	180 c.p.s. recieve-only printer	311.00
LAS4	30 c.p.s. desk-top printer	96.00
LA36	30 c.p.s. upright printer	120.00
LA36/165	LA36 with 165 c.p.s. speed-up modific'n	222.00
LS120	120 c.p.s. upright printer	336.00
M22	Paper-tape reader/punch	120.00
M33	Paper-tape reader only	75.00
M42	Paper-tape reader/punch	150.00
M62	Paper-tape reader/punch	195.00
MICRO 80	Microline 80 30 c.p.s R/D printer	75.00
MICRO 82	Microline 82 80 c.p.s 128 col printer	97.00
MICRO 83	Microline 83 80 c.p.s point printer	128.00
QUME 45 KS	Daisy-wheel printer, keyboard	340.00
QUME 45 RD	Daisy-wheel printer, recieve-only	310.00
QUME 55 KS	Daisy-wheel printer, keyboard	370.00
QUME 55 RD	Daisy-wheel printer, recieve-only	330.00
TELEXMATE	Papertape reader/punch ASCII/BAUDOT cvn	195.00
TMPO	Telexmate punch-only,ASCII/Baudot conv'n	158.00
TVI 912	TeleVideo v.d.u.	90.00
TVI 912/52	TeleVideo v.d.u. with VT52 emulation	98.00
TVI 920	TeleVideo v.d.u. with function keys	105.00
TVI 950	TeleVideo v.d.u. with detach'g k'board	123.00
TVI GRAFIX	Add-on board to give 4010 compatability	120.00
VT100-AA	DEC v.d.u	120.00
VT100-AB	DEC v.d.u. with advanced video option	139.20

This is one of the many services from

Call us on for further details.

Continued

A UK TPM FIRM (TERMINALS) (Cont.)

MICRO MAINTENANCE SOLUTIONS

offer a choice of service solutions for customers using micro-based systems incorporating a variety of peripheral devices. These services are designed to give the best customer response combined with very competitive rates.

As-and-when repairs

Faulty units and/or systems can be brought to our workshops for repair where work will be undertaken on a "time and materials basis". If required, the nationwide collection and delivery service can be used to transport the customer's units at very competitive rates.

COLLECTA-CALL

For customers wishing to take out an annual contract, then an all inclusive service is provided to collect, repair and return units.

COLLECTA-CALL PLUS

As for COLLECTA-CALL, an all inclusive service is provided, but in addition, the customer is provided with a replacement unit during the period of repair.

This service is most useful where it is important for the user to minimise "down time".

A wide variety of micro units, peripherals and terminals can be serviced by the workshops. The price list covers some of the most common units, but any other system can be considered. The price list is based on a single unit on a single site and so where more than one system is to be covered then appropriate adjustments can be made to the rates charged.

TRI-CALL SERVICE

This service offers a 50% reduction on the annual maintenance cost per unit. This service calls for a redundancy of three units, which will be picked up by transport on a normal run, repaired in our workshop and returned as soon as possible, usually within a one week period

This is one of the many services from

Call us on _____ for further details.

A UK TPM FIRM (TERMINALS) (Cont.)

Micro Computers		COLLECTA-CALL	COLLECTA-CALL PLUS
PET	2000 Series	80.00	120.00
	3000 "	85.00	130.00
	8000 "	90.00	-
	Disc 3040	90.00	140.00
	8050	95.00	-
	Printer	70.00	110.00
COMPUTHINK	Disc 400K	90.00	-
	800K	100.00	-
	1.6m	110.00	-
APPLE	II/III 2020	80.00	120.00
	5 1/4" Disc i/f & drive	60.00	120.00
	Other i/f & drives	p.o.a.	-
	B/W monitor	40.00	55.00
	Colour monitor	80.00	-
SUPERBRAIN	S.D.	250.00	330.00
	G.D.	280.00	360.00
COMPUSTAR	Disc	p.o.a.	-
Video Display Terminals			
TVI	912	70.00	90.00
	920	85.00	105.00
	950	100.00	130.00
VOLKER CRAIG	404	70.00	-
	410	85.00	-
DEC	VT100	85.00	105.00
NEWBURY LABS	7002	70.00	90.00
	7009	85.00	105.00
HAZELTINE	1400	70.00	-

continued

This is one of the many services from
 Call us on for further details.

Continued

A UK TPM FIRM (TERMINALS) (Cont.)

Printers		COLLECTA-CALL	COLLECTA-CALL PLUS
ANADEX	8000	85.00	-
	9500	150.00	210.00
DRE	8820	175.00	220.00
	8830	180.00	240.00
	8840	185.00	250.00
	8910	210.00	280.00
EPSON	MX 80	90.00	125.00
	MX 80 FT	90.00	125.00
	MX 100	120.00	165.00
MICROLINE	80	85.00	120.00
	82	100.00	130.00
	83	130.00	160.00
QUME	Sprint 5	190.00	250.00
	drop feed	90.00	-
DIABLO	630	190.00	250.00
	sheet feeder	90.00	-
PAPER TIGER		85.00	-
Papertape			
TELEX-MATE		170.00	230.00

This is one of the many services from
 Call us on for further details.

Continued

A UK TPM FIRM (TERMINALS) (Cont.)

PER CALL SERVICE

Terms and conditions

Per call services are available from . . . for users who wish to have items serviced on a time and materials basis. This type of service is appropriate where downtime may not be continual or where users undertake their own servicing and occasionally require on-site back up assistance.

These rates are also applicable to contract customers for out of hours service, both preventive and remedial.

Service charges

The rates are charged for travel time and on-site time together with any delays which may occur whilst at the customer's premises. The travel rate is calculated on the average time to and from the site from the service point.

All parts and travel expenses are rated separately and charged in conjunction with the labour rates incurred.

Labour rates

#30.00 / hour	Prime shift	09.00 to 17.00
#30.00 / hour	x 1.5	Mon-Fri out of hours
#30.00 / hour	x 2	Sat, Sun & Bank holidays

Standby rates

Rates for engineers on standby outside normal hours are:

#1.50 / hour	Monday-Friday
#2.00 / hour	Sat, Sun & Bank Hols

Mileage

20 pence/mile from the local centre.

This is one of the many services from

Call us on for further details.

Continued

A UK TPM FIRM (TERMINALS) (Cont.)

PER CALL SERVICE

continued

Materials

Full list price unless replacement parts can be accepted back by in which case 50% of the list price will be charged upto a maximum of #400.00.

alternative service arrangement

offer a range of contracts for both on site and return to depot services. Invariably, these alternative arrangements will offer a more acceptable financial solution than the per call rates which usually represents a high percentage of an annual service contract. For details contact (U.K.) Headquarters.

Response time

Per call customer calls are allocated low priority against similar requests from contract customers. A typical response will be approximately 3-4 days but if the fault call has not been cleared within this time frame then acceleration to priority allocation takes place.

Reports

A report is completed by the representative after service has been performed. This report identifies the malfunction, the action taken together with any parts used, and the time spent on site. This report has to be signed by a customer representative. The total charge for the service call will be invoiced and accompany the Site Visit Report (SVR).

Minimum charges

For per call service, a minimum charge of #75.00 is levied regardless of call out time.

This is one of the many services from

Call us on for further details.

Continued

A UK TPM FIRM (TERMINALS) (Cont.)

TELEVIDED SYSTEM PRICES

Equipment	Collecta Call	Collecta- Call Plus
TS 801 Single user, dual floppy		
TS 81		
System 1	220.00	290.00
TS 802 Single user, dual floppy	280.00	360.00
802H Floppy & Winchester	600.00	800.00
TS 806 Floppy & Winchester, up to	550.00	720.00
TS 83 6 users		
System II		
TS 816 Winchester & Magnetic Tape, up	1293.00	1616.00
TS 86 16 users		
System III		
User Satellite (for 806 or 816)	130.00	170.00
TS 800		
TS 80		
TVI 910	70.00	90.00
TVI 950	100.00	130.00

A complete list of prices for supplies can be seen in the centre pages of the current Newsletter.

This is one of the many services from

Call us on for further details.

A SMALL UK TPM FIRM

NOW YOU CAN OFFER NATIONWIDE SERVICE

has a fully equipped Nationwide Service Organisation which is at your disposal. If you do not at present have such a department within your organisation, your sales are probably suffering. Just imagine what being able to offer this After-Sales Service would mean!

- 1) You can now sell anywhere in the UK and offer on site warranty.
- 2) Continued service support for your products after warranty has expired.
- 3) We will train our service personnel to cover your equipment to whatever level you require.
- 4) We can offer (if required) 24 hours round the clock service with fast response times.
- 5) We have trained engineers located throughout the UK, operating from our three service centres in London, Manchester and Edinburgh.
- 6) All engineers are fully equipped with the normal test equipment.
- 7) We also provide excellent training facilities for our engineers at our Training School at Hayes.
- 8) We are prepared to "tailor" a service contract to your specific requirements -thus ensuring you are able to maximise your sales.

We would be pleased to answer any questions you may have concerning the foregoing and can assure you of confidentiality.

APPENDIX C: SURVEY QUESTIONNAIRE

THIRD PARTY MAINTENANCE (TPM) VENDOR QUESTIONNAIRE

I. Company Information

1. Has your Company been in the TPM business for:

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Less than 1 year?	1-2 yrs?	2-3 yrs?	3-4 yrs?	4-5 yrs?	5-10 yrs?	Longer than 10 yrs?

2. Are your firm's annual revenues from TPM (in thousands):

<input type="checkbox"/> Less than \$100	<input type="checkbox"/> \$100- 250	<input type="checkbox"/> \$251- 500	<input type="checkbox"/> \$501- 1,000	<input type="checkbox"/> \$1,001- 1,500	<input type="checkbox"/> \$1,501- 2,000	<input type="checkbox"/> More than \$2,000
E67	67-164	165-329	330-658	659-987	998-1214	1315
DM245	245-599	600-1201	1202-2402	2403-3603	3604-4799	4800
FF700	700-1714	1715-3438	3439-6876	6877-10314	10315-13341	13342
GLD268	268-656	657-1316	1317-1632	1633-3949	3949-5259	5250
KR759	759-1858	1859-3728	3729-7455	7456-11183	11184-14898	14899

3. Is the growth rate for the next 3 years, per year for TPM:

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Less than 10%	10-15%	16-20%	21-25%	26-30%	>30%

4. What was your growth rate for the last 3 years, per year for TPM:

5. To what do you attribute the high growth rate? _____

6. What areas are serviced by your Company?

Entire Area or Certain Cities/Locations (Please Specify)

UK	<input type="checkbox"/>	<input type="checkbox"/>	_____
GERMANY	<input type="checkbox"/>	<input type="checkbox"/>	_____
HOLLAND	<input type="checkbox"/>	<input type="checkbox"/>	_____
ITALY	<input type="checkbox"/>	<input type="checkbox"/>	_____
IRELAND	<input type="checkbox"/>	<input type="checkbox"/>	_____
SCANDINAVIA	<input type="checkbox"/>	<input type="checkbox"/>	_____
FRANCE	<input type="checkbox"/>	<input type="checkbox"/>	_____

Continued

THIRD PARTY MAINTENANCE (TPM) VENDOR QUESTIONNAIRE (Cont.)

7. What products are serviced by your firm?

<u>Type</u>	<u>Manufacturers</u>
Large Systems	<input type="checkbox"/> _____
Small Systems	<input type="checkbox"/> _____
Peripherals	<input type="checkbox"/> _____
Terminals	<input type="checkbox"/> _____
Personal Computers (and Micro)	<input type="checkbox"/> _____
Datacommunications	<input type="checkbox"/> _____
Telecommunications	<input type="checkbox"/> _____
Office Systems	<input type="checkbox"/> _____
Mixed Systems (More than 1 manufacturer)	<input type="checkbox"/> _____

8. What services do you provide?

<u>a. Services</u>	<u>Hardware % Total</u>	<u>Software % Total</u>
Installation/Deinstallation	<input type="checkbox"/> _____	<input type="checkbox"/> _____
Equipment Moves	<input type="checkbox"/> _____	<input type="checkbox"/> N/A
Preventive Maintenance	<input type="checkbox"/> _____	<input type="checkbox"/> _____
Basic Maintenance Repairs	<input type="checkbox"/> _____	<input type="checkbox"/> _____
Refurbishment	<input type="checkbox"/> _____	<input type="checkbox"/> N/A
Engineering Changes	<input type="checkbox"/> _____	<input type="checkbox"/> N/A
Conversions or Upgrades	<input type="checkbox"/> _____	<input type="checkbox"/> _____
Training	<input type="checkbox"/> _____	<input type="checkbox"/> _____
Adding, Improving or Extending Software Features	<input type="checkbox"/> _____	<input type="checkbox"/> _____
Programming	<input type="checkbox"/> _____	<input type="checkbox"/> _____
Consulting	<input type="checkbox"/> _____	<input type="checkbox"/> _____
Used Equipment Sales/Leasing	<input type="checkbox"/> _____	<input type="checkbox"/> _____
Supplies Accessories Consumables Sales	<input type="checkbox"/> _____	<input type="checkbox"/> _____
Time Sharing	<input type="checkbox"/> _____	<input type="checkbox"/> _____
Other (Please List)	_____	_____
_____	<input type="checkbox"/> _____	<input type="checkbox"/> _____
_____	<input type="checkbox"/> _____	<input type="checkbox"/> _____
	<input type="checkbox"/> _____	<input type="checkbox"/> _____

Continued

THIRD PARTY MAINTENANCE (TPM) VENDOR QUESTIONNAIRE (Cont.)

b. What percent is Contract Service versus Ad Hoc or Time and Materials?

9. Do you provide service:

As an agent (dealer etc) of the Manufacturer? In competition with the Manufacturer? Both as agent and a Competitor?

10. When you provide service as the manufacturer's agent (dealer etc) does the customer:

Know that you are an independent service provider? Think that you are the manufacturer?

II. Operations

1. In terms of numbers of personnel, how many employees do you have for TPM:

	A. Field Engineers	B. Field Support Specialists	C. Admin. (clerks etc)	D. Managers	E. Total
1- 19	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20- 39	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40- 59	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
60- 79	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
80- 99	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
100-119	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
120-139	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
140-159	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
160-179	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
180-199	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
199 plus	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. Do you provide warranty service on behalf of the Manufacturers?

 If yes, how does the Manufacturer compensate you for this?

Continued

THIRD PARTY MAINTENANCE (TPM) VENDOR QUESTIONNAIRE (Cont.)

3. What are your capabilities for:

a. Standard Response Time?

<u>Response Time (including Travel)</u>		<u>Repair Time</u>
<u>Normal Hours</u>	<u>Outside Normal Hours, 2nd & 3rd shift, Sat, Sun & Holidays</u>	
Less than		
0.5 hrs - <input type="checkbox"/>	----- <input type="checkbox"/>	----- <input type="checkbox"/>
0.5-1 hrs <input type="checkbox"/>	----- <input type="checkbox"/>	----- <input type="checkbox"/>
1.1-2 hrs <input type="checkbox"/>	----- <input type="checkbox"/>	----- <input type="checkbox"/>
2.1-3 hrs <input type="checkbox"/>	----- <input type="checkbox"/>	----- <input type="checkbox"/>
3.1-4 hrs <input type="checkbox"/>	----- <input type="checkbox"/>	----- <input type="checkbox"/>
4.1-8 hrs <input type="checkbox"/>	----- <input type="checkbox"/>	----- <input type="checkbox"/>
8.1-16 hrs <input type="checkbox"/>	----- <input type="checkbox"/>	----- <input type="checkbox"/>
16.1-24 hrs <input type="checkbox"/>	----- <input type="checkbox"/>	----- <input type="checkbox"/>

b. Premium Response Time?

<u>Response</u>	<u>% Premium</u>
Less than	
0.5 hrs - <input type="checkbox"/>	-----
0.5-1 hrs <input type="checkbox"/>	-----
1.1-2 hrs <input type="checkbox"/>	-----
2.1-3 hrs <input type="checkbox"/>	-----
3.1-4 hrs <input type="checkbox"/>	-----
4.1-8 hrs <input type="checkbox"/>	-----
8.1-16 hrs <input type="checkbox"/>	-----
16.1-24 hrs <input type="checkbox"/>	-----

III Resources

1. Where do you obtain qualified field engineers?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Technical or military schools	From manufacturers service organisations	Other

Continued

THIRD PARTY MAINTENANCE (TPM) VENDOR QUESTIONNAIRE (Cont.)

2. What is the average field engineer's compensation?

under \$10k \$11-15k \$16-20k \$21-30k over \$30k Other benefits car/etc

3. Do you provide:

on-site service? board swap? repairs service?

4. What percentage of your customers use your service exclusively?

5. What is your attrition rate of field engineers?

Less than 10% 11-15% 16-20% More than 20%

6. Why is this? _____

7. Do you utilize:

Remote diagnostics? Central dispatch? Walk-in/Mail-in?

IV Marketing

1. Why do your customers use your service?

Less Costly More Responsive Don't like Manufacturer Service Maintain Mixed Systems Other _____

2. What percentage attrition (annually) do you have with customers?

Why do they quit using your service? _____

3. To what do you attribute your success in providing TPM?

Marketing (Promotion Price Performance) Customer Demand Other _____

Continued

THIRD PARTY MAINTENANCE (TPM) VENDOR QUESTIONNAIRE (Cont.)

4. Who are your major

<u>Customers*</u>	<u>Locations</u>	<u>Competitors* (TPM)</u>	<u>Locations</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

* STRICTLY CONFIDENTIAL

5. Do you provide prices for services?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10-15% less than Manufacturers	16-20% less than Manufacturers	21-25% less than Manufacturers	More than 25% less than Manufacturers

6. What is your rough estimate of your firm's market share of TPM?

7. Please send a sample service contract, price list and brochure to INPUT LTD for TPM.

V Trends

1. In a brief sentence or two, please describe the most important issues and trends for TPM in the next 3 years.

COMPANY _____

NAME _____

TITLE _____

Please return to:-

INPUT LIMITED
35 Piccadilly
London W1V 9PB

APPENDIX D: EXCHANGE RATES

APPENDIX D: EXCHANGE RATES

<u>1 U.S. Dollar Equals</u>		<u>Dollars Equal</u>		
Pds Sterling	0.64	\$1.57	=	£1.00
Fr Belgium	48.60	\$2.06	=	100 Bf
Kr Denmark	8.68	\$0.115	=	1 Kr
Mkk Finland	5.39	\$0.18	=	1 Mkk
Fr France	7.33	\$0.136	=	1 Ff
DM Germany	2.43	\$0.41	=	1 DM
Pt Ireland	0.77	\$1.30	=	1 Pt
Lira Italy	1,446.0	\$0.69	=	1,000 Lira
Gld Netherlands	2.73	\$0.37	=	1 Gld
Kr Norway	7.07	\$0.14	=	1 Kr