# Computer Contracts

# Introduction

- An agreement between two or more parties for the doing or not doing of something specified

- Contracts serve the following purpose:

1. Contracts set out the **agreement** between the parties

2. they set out the **aims** of the parties;

3. provide for **matters arising** while the contract is running,

4. ways of **terminating** the contract and the consequences of termination

# Introduction

- If contracts are too harsh or unfair causing any issue between parties to be unresolved, it is the responsibility of the contract laws to contemplate according to the rules.

- contract law provides rules for the termination of the contract if performance becomes impossible

- it sets aside contracts which are too harsh or unconscionable(unreasonable)

# Introduction

- There are almost never disputes over contracts which run perfectly e.g marriage

- Example: ship to carry a cargo

- In order to avoid disputes and future difficulties it is better to draft a document which sets out:

1. The terms on which both parties is to work.

2. Methods of payment.

3. Appropriate ways to terminate the contract-notice required.

# Introduction

- One noticeable growth area is e-commerce. However, again the law is able to cope, sometimes with minor modifications, e.g. relating to electronic signatures to documents exchanged over the Net. Since the advent of the Internet, the market has globalized to a far greater extent than ever before, and there is greater need for international harmonization of laws. The EU has therefore been very active in line with its policy of removing distortions of trade within the internal market and also in facilitating trade by EU businesses. There are therefore directives and proposals for directives on:
1. electronic signatures;
2. electronic commerce;
3. distance contracts;
4. distance selling of financial services.

# Introduction

- One of the problems with computing contracts is that many lawyers are still not familiar with the technology. But, on the other hand, even fewer computer scientists are familiar with the law; and as both lawyers and computer scientists use jargon known almost only to themselves, the difficulties are compounded.

- Hilary Pearson 1 made a very telling statement when she said that, while optimists make the best deal makers, pessimists make the best contract writers.

- When it comes to drafting a contract, lawyers in particular are born pessimists. This often gives rise to frustration on the part of a business client who is excited by the possibilities of a deal which may have taken considerable time and effort to negotiate. Resolving potential and hypothetical points of difficulty may just be seen as time-wasting by the client.

# Introduction

- Contract should be <mark>clear, consistent and concise</mark>. It is important that a contract is set out in a clear and logical manner and that it is complete and consistent

- There should be <mark>no ambiguity</mark> and the parties to the agreement should be left in no doubt as to their rights and duties.

- Ambiguity and doubts can lead to performance which is viewed as unsatisfactory.

- This can lead to <mark>disagreement</mark> and the <mark>expenditure of time, effort</mark> and therefore money, in resolving the matter

# Introduction

- software engineers are likely to come across many different types of contract—insurance contracts, contracts of employment, contracts with hardware suppliers, consultancy contracts.

- we shall concentrate on contracts which are relevant to the development and supply of software

# Contracts for the supply of custom-built software at a fixed price

- Producing a good contract costs a lot of ==money;==
- good commercial lawyers are not cheap.
- ==software suppliers try to use what are known as standard form contracts, which are used or intended to be used many times over==

**Structure of the contract**

1. a short **introductory section** which specifies, among other things the names of the parties to the contract;
2. a set of **standard terms and conditions**;
3. a set of appendices or **annexes**. (an addition to a document.)

The standard terms and conditions do not change from one project to another; they contain references to the annexes, which contain all the project specific material.

# Issues dealt with standard terms and conditions

- What is to be produced ?
- What is to be delivered?
- Ownership of rights
- Payment terms
- Calculating payments for delays and changes
- Penalty clauses
- Obligations o f the client

# Issues dealt with standard terms and conditions

- Standards and method of working

- Progress meetings

- Project managers

- Acceptance procedure

- Warranty and maintenance

- Termination of the contract

# 1 What is to be produced

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- contract states what is to be produced.
- the standard ==terms and conditions refer to an annex== and the annex then refers to a separate document which constitutes the ==requirements specification==
- reference to the requirements specification identifies that document ==uniquely==
- A specification sets out the detailed requirements of the client. Ideally, the specification should b==e complete, consistent and accurate== and set out all that the client wants to be done in the performance of the contract.
- Unfortunately, we know that it is very difficult to achieve this ideal standard and, even if we succeed, the ==requirements of the client may evolve== as the contract proceeds, and sometimes the changes may be substantial.
- Solution ?

# 2 What is to be delivered

- Producing software for a client is <mark>not, usually, a matter of simply handing over the text</mark> of a program which does what is required.

- contract states what precisely is to be provided

- list of possibilities:

1. source code;

2. command files for building the executable code from the source and for installing it;

3. documentation of the design and of the code;

4. reference manuals, training manuals and operations manuals;

5. software tools to help maintain the code;

6. user training;

7. training for the client's maintenance staff;

8. test data and test results.

# 3 Ownership of rights

- contract should also state just what legal rights are being passed by the software house to the client under the contract.

- Ownership in physical items such as books, documents or discs will usually pass from the software house to the client, but other intangible rights, known as intellectual property rights should be addressed

- Read page 106,107

- If ownership of copyright passes to the client it is known as a sale or assignment and again a written agreement is necessary. Furthermore, the agreement will usually provide that copyright is only to pass to the client when the final payment has been made in full. If copyright is to remain with the software house and the client is merely given permission to use the software, this is known as a licence

- If the client has an exclusive licence to use the software, it is the only organization entitled to use it. If the client takes ownership of the software or has an exclusive right to use it, the software house cannot make money from the software by licensing others to use it.

# Ownership of rights

- Where the client is granted a licence, the following matters should be dealt with in the contract

1. duration of the licence—a licence should be for a fixed period; or there should be some provision for termination, for example by giving notice, or on the happening of certain events, common terminating events being death;

2. the licence agreement should state whether the licensee can assign or transfer the licence to another. If there is no provision giving the licensee the power to transfer the licence to another, then the licence is probably not assignable;

3. scope of the licence: does the licence cover use on one particular computer, or can the software be run on other machines. If so, is the licence limited to one site? If the client is one of a group of companies, can others in the group also benefit from the licence?

4. confidentiality: the licence will often seek to restrain the licensee from allowing anyone other than company employees to become familiar with the use of the software. This can be an embarrassment for educational establishments who wish to purchase the software for use by their students.

# Ownership of rights

- If the supplier retains the copyright, major problems can arise for the client if the **supplier goes into liquidation or otherwise ceases** to trade. The supplier is then no longer able to maintain the software but the client may be unable to obtain copies of the up-to-date source listings of the programs and any tools used to construct them, in order to commission maintenance from a third party.

- One way around this difficulty is for the contract to specify that, after acceptance, a copy of the listings and documentation is placed in escrow; this means that the **copy is placed in the hands of a third party (usually a lawyer)** to be released to the client if and when certain defined circumstances arise

# 4 Confidentiality

- The commissioning client may well have to pass confidential information about its business operations to the software house.

- software house may not want the client to (disclose sensitive information) divulge to others details of the program content or other information

- For each party to promise to maintain the confidentiality of the other's secrets, and for express terms to that effect to be included in the contract.

# 5 Payment terms

- Payment shall become due within thirty days of the date of issue of an invoice.

- If payment is delayed by more than thirty days from the due date, the Company shall have the right, at its discretion, to terminate the contract, or to apply a surcharge at an interest rate of 2 per cent above the bank base lending rate.

- In practice, such clauses are only brought into effect in extreme cases, since using them is likely to destroy the goodwill between supplier and client on which the success of the project depends.

# Payment terms

- Specify pattern of payments

1. an initial payment of, say, 15 per cent of the contract value becomes due on signature of the contract;

2. further stage payments become due at various points during the development, bringing the total up to, say, 65 per cent;

3. a further 25 per cent becomes due on acceptance of the software

4. the final 10 per cent becomes due at the end of the warranty period.

# 6 Calculating payments for delays and changes

- when the client fails to provide information on a due date or when changes are requested which result in extra work.

- The contract must specify the process by which these extra payments are to be calculated

- annex will include daily charging rates for each grade of staff employed on the contract and the amount of extra effort to be paid for will be agreed at progress meetings.

- Delay payments and payments for variations to the original requirements are, perhaps, the commonest cause of contractual disputes, not only in software engineering but in most other contracting industries

# 7 Penalty clauses

- The normal mechanism used is to include a penalty clause which provides that the sum payable to the supplier is reduced by a specified amount for each week that acceptance of the product is delayed, up to a certain maximum

- Suppliers are very reluctant to accept penalty clauses

- If the contract is to include penalty clauses, the bid price is likely to be increased by at least half the maximum value of the penalty.

- If the software is seriously late and penalties approach their maximum, there is little incentive for the supplier to complete the work since he will already have received in stage payments as much as he is going to get

- It should be realized that the cost of delays on fixed price contracts is very high, regardless of penalty payments. Every delay eats into the supplier's profit margin. As a result, suppliers are strongly motivated to produce the software on time and delay is usually the result of genuine technical difficulties (or incompetence!) rather than lack of motivation.

# 8 Obligations of the client

- client will have to fulfil certain obligations if the contract is to be completed successfully.
- provide documentation on aspects of the client's activities or the environment in which the system will run;
- provide access to appropriate members of staff;
- provide machine facilities for development and testing;
- provide accommodation, telephone and secretarial facilities for the company's staff when working on the client's premises;
- provide data communications facilities to the site.
- failure to meet the obligations may render the client liable for delay payments

# 9 Standards and methods of working

- supplier is likely to have company standards, methods of working, quality assurance procedures, etc. and will normally prefer to use these

- More sophisticated clients will have their own procedures

- In some cases, the supplier may be required to allow the client to apply quality control procedures to the project.

- The contract must specify which is to apply.

# 10 Progress meetings, Project Managers, Acceptance procedure

- Progress meetings: Regular progress meetings are essential to the successful completion of a fixed price contract and it is advisable that <mark>standard terms and conditions require them to be held</mark>.

- Project Managers: The Project Managers must have at least the authority necessary to <mark>fulfil the obligations</mark> which the contract places on them.

- Acceptance procedure: critical part of any fixed price contract, <mark>successful completion of the contract is judged</mark>, client should provide a <mark>fixed set of acceptance tests and expected results</mark> and that successful performance of these tests shall constitute acceptance of the system

# 11 Warranty and maintenance

- Once the product has been accepted, it is common practice to offer a warranty period of, typically, 90 days.

- Any errors found in the software and reported within this period will be corrected free of charge.

- This clause is, of course, subject to negotiation; reducing or eliminating the warranty period will reduce the overall cost of the contract prolonging the period will increase it.

- Once the warranty period is over, the supplier may offer, or the client demand, that maintenance will continue to be available on request.

# 12 Termination of the contract

- **Termination of the contract**:
1. the client to be ==taken over== by another company which already has a system of the type being developed, or for a change in policy on the part of the client to mean that the system is no longer relevant to its needs.
2. supplier is to be ==paid for all the work carried out up to the point==
3. together with some ==compensation== for the time needed to redeploy staff on other revenue-earning work.
4. The question of ==ownership== of the work so far carried out must also be addressed.

# Arbitration

- Court action to resolve a contractual dispute is likely to be expensive.

- It is common practice for contracts to include a statement that, in the event of a dispute that cannot be resolved by the parties themselves, they agree to accept the decision of an independent arbitrator.

- British Computer Society or by the President of the Institution of Electrical Engineers both bodies maintain lists of qualified arbitrators who have the necessary technical understanding.

- Some organizations may be unwilling to accept an arbitration clause because they feel that they are signing away some of their legal rights.

# Inflation

- commitment to long term maintenance, the supplier will wish to ensure protection against the effects of unpredictable inflation
- include a clause which allows charges to be increased in accordance with the rise in costs
- The clause should state how often (once a year, twice a year) charges can be increased and how the effect on the overall price is to be calculated
- **Applicable law:** Where the supplier and the client have their registered offices in different legal jurisdictions or performance of the contract involves more than one jurisdiction, it is necessary to state under which laws the contract is to be interpreted

# Other types of software services contract

- There are four types of contractual arrangement which are widely used in connection with the provision of software services:

1. contract hire;

2. time and materials;

3. consultancy;

# contract hire

- the supplier agrees to provide the ==services of one or more staff== to work for the client;
- staff work under the direction of the client and the ==supplier's responsibility is limited to providing suitably competent people and replacing them if they become unavailable== or are adjudged unsuitable by the client
- Payment is on the basis of a ==fixed rate for each man day worked==; the rate depends on the experience and qualifications of the staff
- Issues such as delay payments, acceptance tests and many others simply do not arise

# Time and materials

- A time and materials contract (often referred to as a "cost plus" contract) is somewhere between a contract hire agreement and a fixed price contract.
- The supplier agrees to undertake the development of the software in much the same way as in a fixed price contract but payment is made on the basis of the costs incurred, with labor charged in the same way as for contract hire
- This is a type of contract that pays the contractor for the materials he or she uses as well as the amount of time spent to finish the job.
- A time and materials contract usually signals to the customer that there is risk involved. The project could cost more than initially anticipated.
- The supplier is not committed to completing the work for a fixed price, although a maximum payment may be fixed beyond which the project may be reviewed

# Time and materials

- Many of the complications of fixed price contracts still occur with time and materials contracts—ownership of rights, facilities to be provided by the client, progress monitoring arrangements, for instance—but others,

- such as delay payments and acceptance testing do not;

- this is not to say that no acceptance testing is done, only that it has no contractual significance since nothing contractual depends on its outcome

- Time materials or fixed price, which one would you prefer ?

# Consultancy contract

- You hire team of consultants

- Consultants are typically used to assess some aspect of an organization and to make proposals for improvements.

- The end product of a consultancy project is therefore usually a report or other document

- Consultancy projects are usually undertaken for a fixed price but the form of contract is very much simpler than the fixed price contracts so far described