Anglicisms in German Computing Terminology

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May 6, 2003

Declaration

I hereby declare that this thesis is entirely my own work and that it has not been submitted as an exercise for a degree at any other university.

_____May 6, 2003

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Acknowledgements

Firstly, I would like to thank my supervisor, Dr. Nicola McLelland for all her guidance and encouragement throughout the year. I also want to thank Dara for her proofreading skills and Ulrika for her attention to mathematical detail, and last, but not least, all the people who found respondents to take part in my survey.

A big thank you goes to all my friends and family, especially my mum and dad for all the love, support and opportunities they have given me.

“Die Gewalt einer Sprache ist nicht, dass sie das Fremde abweist, sondern, dass sie es verschlingt.” (Goethe).

(‘The strength of a language is not that it rejects all that is foreign, but that it consumes them.’)

Contents

List of Figures

Chapter 1

Introduction

1.1 Motivation

The motivation behind this dissertation was mainly due to the recent publicity and controversy over anglicisms. Many Germans are fearful of what some perceive as a decline in their language and by extension their culture and way of life. It is fascinating to observe the current debate involving members of the general public, academics and the scaremongers and hopefully by the end of my dissertation I will have clarified some of the misperceptions regarding anglicisms in German.

Secondly, I wanted to incorporate all three disciplines of my degree, namely Computer Science, Linguistics and German into my dissertation. After attending an intriguing seminar on sociolinguistics at the University of Vienna, Austria, during my Erasmus year, I concluded that the topic of Anglicisms in German Computing Terminology would enable me to do just that.

1.2 Outline of the Chapters

In Chapter 1, I discuss and provide an overview of language contact and linguistic borrowing. Chapter 2 gives an outline of the various languages which have come into contact with German. Chapter 4 is a review of the classification of borrowing, in that it looks at each proposed classification of borrowing and the different categories put forward by various individuals and contemplates each one in turn. The history of borrowing between English and German and their relationship up until the present day is scrutinized in Chapter 5. Chapter 6 deals with how anglicisms are integrated into the German language, with particular examination of orthographical, phonological, morphological and

sematic integration. The use of anglicisms in German, which incorporates a section on *Fachsprache* or technical language, is assessed in Chapter 7. An account of attitudes towards anglicisms in German and German language societies is provided in Chapter 8. Chapter 9 is an analysis of a corpus of terminology taken from German computing magazines and the subsequent chapter, Chapter 10, presents the various findings from the analysis. Chapter 11 introduces the online survey, and Chapter 12 discusses the results of the survey. Chapter 13 gives a synopsis of several conclusions. And finally, the appendices contain, six magazine articles, a vocabulary list, a list of eliminated words, a list of compounds, the various categories of borrowing, a transcript of the online survey and a sample response from the survey.

Chapter 2

Language Contact and Linguistic Borrowing

All languages continuously change over time. Therefore, the concepts of language contact and linguistic borrowing are by no means new. They have always been intrinsically involved with languages, both as they have changed during the course of history and as they continue to change today. A basic definition for language contact is

> "...the use of more than one language in the same place at the same time." (Thomason 2001, pg1).

That is, language contact is two languages coming into contact with one another, resulting in linguistic change occurring in one or both of the languages. Language contact, particularly close contact situations, leads to linguistic change. Milroy (1992) takes the sociolinguistic perspective, as he sees linguistic change of a language or language system as a social phenomenon. All members of a speech community are connected to each other in social networks and Milroy (1992) defines close contact situations as open networks that result from numerous weak ties. A person whose personal contacts all know each other belong to a 'closed network', but an individual whose contacts tend not to know each other belong to an 'open network'[1]. The number of links between people in a network depend on whether they are relatives, friends, work colleagues etc.. The more links the stronger the network ties. The less links the weaker the ties. Many links with other members of the network are referred as multiplex ties, but having only one link is referred to as a uniplex tie[1]. Milroy states that:

> "When linguists speak of a close contact situation, they are usually thinking of contact between *systems*, but what actually occurs is contact between *speakers* of different languages: the changes that result and that are then

[1]Definitions from http://www.putlearningfirst.com/language/research/milroy.html

> observed in the system have been brought about by the speakers, who form weak and uniplex ties when two populations first come into contact. So, strictly speaking, it is not really *language* contact at all, but *speaker* contact."

Weinreich (1953) also places emphasis on the speakers of a language when giving his definition for language contact:

> "...two or more languages will be said to be IN CONTACT if they are used alternately by the same persons. The language-using individuals are thus the locus of contact."

It is important to note here that not just spoken contact, but also written contact is a contributing factor of language change. In fact, it will be the written contact between English and German found in a corpus of German computing magazines that will be investigated later.

Let us take for example the case of German. Linguistic historians have been able to trace which languages have come into contact with and influenced German. Stanforth (1984) gives a short synopsis of the contact between German and the other languages that have had major influences on it:

> "...Latin during the Roman occupation of the lands on the Rhine and Danube, and during the period of conversion to Christianity; French during the Middle Ages; Latin again during the Renaissance; French in the seventeenth and eighteenth centuries; English during the nineteenth and twentieth centuries, with American English (AE) taking over from British English (BE) after the Second World War."

There are different types of language contact resulting from many different contributing factors and causes. These types include bilingualism, language shift and pidginisation. A speaker who is bilingual has the command of two languages and is able to switch from one language to the other when required. One of the main reasons for bilingualism is due to different geographic areas and how countries are geographically divided. Weinreich (1974, pg89) elaborates:

> "...the division between mother-tongue groups is a geographic line. Unless it coincides with high mountains, seas, or other physical obstacles, there is likely to be contact between the mother-tongue groups across the line, and hence bilingualism."

Nowadays multilingualism, where a speaker has more than two languages, is not uncommon. But bilingualism and multilingualism differ from language shift, or a permanent change in a person's choice of language for everyday purposes.

> "A language shift may be defined as the change from the habitual use of one language to that of another." (Weinreich (1974, pg68)).

Language shift is usually a result of immigration. Weinreich (1974, pg107) describes a situation of language shift:

> "... under a foreign occupation, or in migrating to a new country, the adult members of a mother-tongue group may come to use a new language in its dealings with governmental authorities, while the children use it in school; at the same time, the old language may live on in the homes and at informal gatherings of the group."

A langauge shift may be *partial* if the old language is still used in some situations, or *total* if the new language completely takes the place of the old language. Lastly, when two speakers who both have two different languages, are forced to communicate the resulting created language, is called a pidgin and this process is called pidginisation. Trade between people who would otherwise have no common language is the most common reason for the creation of a pidgin. If members from the two speech communities intermarry and have children, the children then acquire the pidgin as their mother tongue and it is from then onwards referred to as a creole. These are all examples of how contact between languages can occur and in Chapter 5 I will look at contact between English and German.

Linguistic change, which again is a result of language contact, normally involves alterations to the vocabulary of a language, its pronunciation, or both. Linguistic borrowing is the major contributor of such changes. Borrowing can be defined as the process whereby a word which is used in one language begins to be used in another language. Haugen (1950) suggests suitable words to describe the process of linguistic borrowing, including 'mixture', 'stealing', 'adoption' and 'diffusion', all of which he dismisses in turn, before broadly defining linguistic borrowing as:

> "the attempted reproduction in one language of patterns previously found in another"

This is a very appropriate definition because Haugen (1950) identifies that not just individual words, but also phrases or 'patterns' as he calls them, can be borrowed from one language to another.

One of the main sources of borrowing is the English langauge and a borrowing from English has its own term; an anglicism is a word, idiom, or feature of the English language borrowed by another language (Collins English Dictionary). English has been spreading all over the globe. During the 18th century Britain was a vast empire and the biggest colonial power in the world and many of its colonies still have English as an official language today. Various surveys carried out by UNESCO and other international organisations report that English is the official or semi-official language in over 60 different countries and has a prominent place in a further 20 countries. (Crystal 1995, pg 358). Today it has more than 350,000,000 native speakers and more than 400,000,000 people speak English as their second language, making English a so-called "world language" or *lingua franca*, if not "*the* world language". It is the main language of business, airports and air-traffic control, science, technology, medicine, diplomacy and advertising. To further highlight the status of English as a world language, Crystal (1995, pg 358) states:

> "Of all the information in the world's electronic retrieval systems, 80% is stored in English. English radio programmes are received by over 150 million in 120 countries. Over 50 million children study English as an additional language at primary level; over 80 million study it at secondary level (these figures exclude China). In any one year, the British Council helps a quarter of a million foreign students to learn English, in various parts of the world. In the USA alone, 337,000 foreign students were registered in 1983."

As different countries have come into contact with the English language and/or culture, it has resulted in direct or indirect influences on their own native languages.

In his summary of contact between German and various other languages above Stanforth (1984) makes a distinction between British English (BE) and American English (AE). This topic is quite controversial at the moment, as academics disagree on whether anglicisms should be classified into separate subcategories according to their origins from either British English or American English. However, two complications arise if one attempts this further division. The first is defining what actually qualifies as British English and the second is differentiating between this and so-called American English. Hansen (1997) attempts to clarify this, but only succeeds in demonstrating the inherent confusion:

> "British English is used explicitly or implicitly to refer to the type of English spoken and written in England ..., British English occurs as a cover term for the variety of English used in Great Britain (i.e. England, Scotland and

> Wales) ... Even more broadly, British English is used as a cover term for the varieties of English in the British Isles ... British English occurs as a label to refer to the British (or, more precisely, English) branch of varieties of English (as opposed to the American branch)..."

Examples of differences in terminology for everyday objects between British English and American English[2] include:

British English	**American English**
aubergine	*eggplant*
crossroads	*intersection*
handbag	*purse*
holiday	*vacation*
motorway	*freeway*
postman	*mailman*
push-chair	*stroller*
sweets	*candy*

On the other hand, a word may clearly originate in one variety of English, but then come to be widely accepted in another. For instance, the term *skateboarding* originated in American English, but is now widely accepted in British English. Viereck (1986, pg 111) expands further by saying:

> "In many cases, however, one can no longer furnish exact evidence: expressions which may have come into being in American English can a day later already be a part of British English (and vice versa), or even be an accepted part of the English language as a whole. After all, the area in which a term was first coined need not necessarily be the same as that in which the first documented evidence of the term occurs; indeed, one often does not know whether an earlier attestation will be discovered."

For these reasons, unless specifically stated, I will not differentiate between an anglicism as having origins in American or British English.

Carstensen (1992) also encapsulates some of the problems involved with borrowing when he was contemplating the title for his *Dictionary of Anglicisms*. He comments that:

[2]Examples taken from http://www.about.com

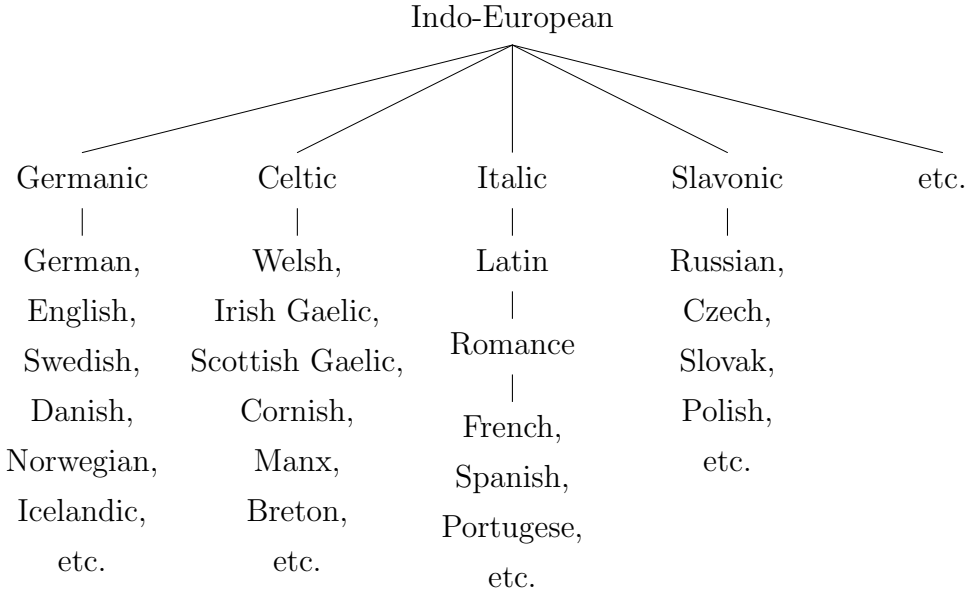
> "The exact title should be *A dictionary of frequently used words from (British, American, Canadian, Australian etc.) English which are used in present-day German (Federal Republic of Germany, German Democratic Republic, Austria and Switzerland), mainly those which entered the German language after 1945, but also older loan-words which are still productive today.*"

Not only are there many varieties of English, but there are also many different varieties of German. In addition, one can differentiate between anglicisms that have entered German before or after 1945. The anglicisms before 1945 are older and more integrated into the German language, whereas after 1945 a great number of newer, more modern anglicisms were introduced. How anglicisms are integrated into German is dealt with in Chapter 6, but in the following chapter I will discuss the various languages that have come into contact with German.

Chapter 3

History of Languages in Contact with German

European languages, including English and German, are members of the Indo-European family of languages. Geographically, speakers of Indo-European languages have traditionally been located in the countries that extend from India to Europe as the name suggests. I use the word 'traditionally' here as I have already dealt with an exception to this statement, i.e. English, and how it is no longer confined to being spoken only in Britain. The Indo-European family of languages consists of a number of different language groups as shown in the diagram below (adapted from Barbour and Stevenson, 1990 pg24):

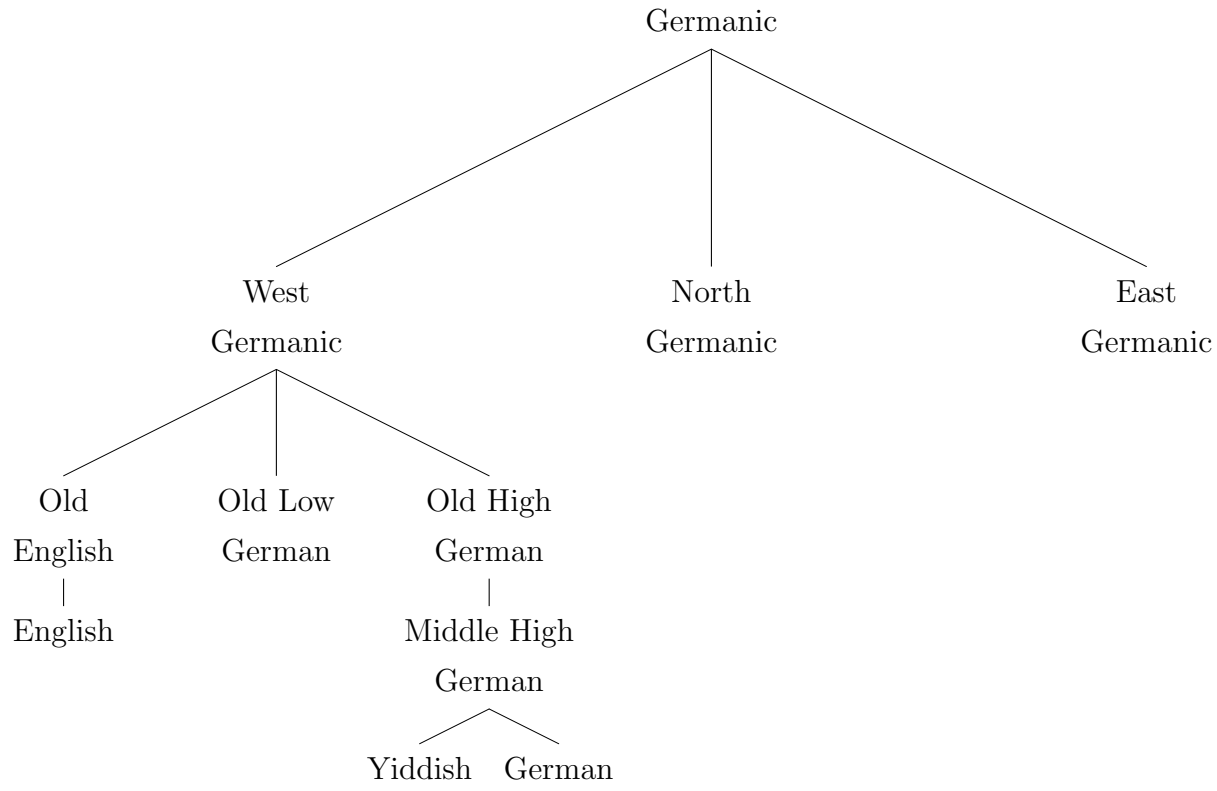


English and German both belong to the Germanic languages group. Though the two belong to the same language group and have similarities, they are still significantly distinct

languages in grammar, vocabulary, pronunciation etc. Proto-Indo-European was the parent of Indo-European languages. The earliest form of the Germanic language group, which is called Primitive or Proto Germanic, broke away from Proto-Indo-European between 2000 and 500 B.C.. For instance, Primitive Germanic began to adopt initial stress, i.e. placing emphasis on the first syllable of a word. Another feature of Primitive Germanic was the ablaut system, where vowels undergo certain changes to mark grammatical categories. Similarities in the patterns of vowel change, particularly with verbs, can still be found in English and German today, as shown in the examples below (taken from Johnson 1998, pg13):

English	**German**
eat/ate/eaten (e/a/e)	*essen/aß/gegessen* (e/a/e)
drink/drank/drunk (i/a/u)	*trinken/trank/getrunken* (i/a/u)

Between 500 B.C. and 750 A.D. Primitive Germanic developed into the various Germanic languages that we know today and it was also the turning point where English and German went their separate ways. Primitive Germanic divided into three groups; West Germanic, North Germanic and East Germanic. West Germanic then divided into Old English, Old Low German and Old High German. Old English in turn evolved into English and Old High German evolved into Middle High German, which in turn divided into Yiddish and German, as can be seen from the diagram below (Barbour and Stevenson, 1990 pg24):



Thus, the forefather of the German language, as distinct from Germanic, was derived in the year 750 AD. From then onwards the history of the German language as we know could be recorded. The first person to divide the linguistic history of German into different eras or periods was Jacob Grimm, who differentiated between three time periods; 750 to 1100 AD - Old High German (*Althochdeutsch*), 1100 to 1500 AD - Middle High German (*Mittelhochdeutsch*) and from 1500 until present day - New High German (*Neuhochdeutsch*), as given in Wells (1987).

I now want to expand on Stanforth's (1984) short summary in the previous chapter regarding the various languages that have come into contact with German. It is necessary to examine what the various foreign influences have been on German because in the next chapter I will investigate contact between English and German in particular. I shall deal with each period of time in turn, beginning at the end of Primitive Germanic and the start of Old High. The most relevant in the time before Old High German was Latin through contact with the Roman civilization and culture. This is evident by the presence of a large number of words in the vocabulary of Primitive Germanic which are of Latin origin. Examples (taken from Waterman 1966, pg 35) include:

Latin	**German**	
fenestra	*Fenster*	('window')
campus	*Kampf*	('battle')
calix	*Kelch*	('chalice')
ceresia	*Kirsche*	('cherry')
piper	*Pfeffer*	('pepper')
persica	*Pfirsich*	('peach')

Greek also influenced Primitive Germanic e.g *Kirche* ('church') from *kyriakon* (Schweikle 1990, pg229), as did the Celtic languages to some extent, e.g. *Amt* ('office') from *ambaktos* (Schweikle 1990, pg228).

Latin continued to influence the development of German into the Old High German period largely due to Christianity and its use in the Mass. Missionaries who were spreading the Christian faith introduced Latin words from their religious terminology. Also, the *Klosterkultur* or the influence that the early Christian monasteries had on German culture and language, played a major role. Scribes and monks in the monasteries copied manuscripts, the Bible, and the Gospels in Latin and when they gradually began to translate them into German, they used many words borrowed from Latin. Thus Old High German was infiltrated with Latin. Waterman (1966, pg71) has the following examples:

Latin	**German**	
altâria	*Altar*	('altar')
claustrum	*Kloster*	('cloister')
nonna	*Nonne*	('nun')
missa	*Messa*	('mass')
tîncta	*Tinte*	('ink')
crux	*Kreuz*	('cross')
tabula	*Tafel*	('board/tablet')

Schweikle (1990, pg229) also notes that the Slavonic languages contribute a few words, such as *Kürschner* ('furrier') from *kurzno* to Old High German.

Towards the end of the Old High German period, from 1050 onwards, although Latin was still the language of Christianity, writing and education, French started to predominate

and became the most influential language of the Middle High German period. The French language was held in great esteem by Germans, as all aspects of French culture, including chivalry, manners and dress, were considered more prestigious than German. The Second Crusade (1147-1149) was a joint venture lead by Louis VII of France and Konrad III, which instigated close contact between the knights of the French and German armies (Waterman, 1966 pg 89). After the Crusade, many German knights frequently attended the French courts, and the children of German noblemen often had French tutors. As a result, many French words made their way into the German language. Examples include:

French	**Old High German**	**New High German**	
aventure	*âventiure*	*Abenteuer*	('adventure')
baniere	*banier*	*Panier*	('pennant on a lance')
joste	*tjoste*	-	('to joust')
palaise	*palas*	*Palais*	('palace')
rime	*rîm*	*Reim*	('rhyme')

The tournaments in which the knights took part generated a lot of vocabulary, some of which is still used today in figurative expressions (Waterman 1966, pg 91):

für jemand eine Lanze einlegen
'to stand up for someone'

etwas im Schilde führen
'to be up to something'

mit offenem Visier kämpfen
'to fight with an open visor'

This highlights the fact that some types of borrowings have long traditions and bear significant historical relevance.

Middle High German also borrowed a few suffixes from French. The *î* suffix used in Old High German for nouns derives from the *îe* suffix in French. Today, in German the *î* suffix has changed to *ei* and occurs in words such as *Bäckerei* ('bakery') and *Metzgerei* ('butcher's shop'). The *-ieren* suffix for verbs in German was also borrowed from

French. It was usually only used with verbs of French origin, for example *parlieren* ('to talk/converse'), but later was also used with German verbs e.g. *buchstabieren*, ('to spell') (Waterman, 1966 pg90).

Printing was invented circa 1450. This had many widespread repercussions. It meant that books were made widely available and for the first time ever, the written word could be reproduced in great quantities and dispersed to the public. When Johann Gutenberg printed his 42-line Bible in 1455 he brought printing to Western Europe. Gutenberg's Bible was naturally printed in the prevailing language of scholars at that time, which of course was Latin.

The year 1500 onwards, was the beginning of the New High German (*Neuhochdeutsch*) period. In 1571, Simon Roth compiled the first German dictionary of foreign words (*Fremdwörterbuch*). This is very significant because it shows that people were aware of the presence of foreign words in German as early as the 16th century. The dictionary contained about 2,800 entries and nearly all of them were Latin (Wells 1987, pg. 281). This is a reflection of the fact that from about 1450 to 1600 Latin had the greatest influence on German than any other language. In fact, in 1570, 70% of all the works printed in Germany were printed in Latin (Waterman 1966, pg. 127). The Catholic church still used Latin for all liturgical purposes and official correspondence. In addition to this, the influence of Latin was due largely to the Renaissance. Therefore, the terminology of theology, law, medicine, philosophy and other disciplines was greatly enriched by Latin. Words representative of these disciplines that were introduced at this time include (Waterman 1966, pg121):

Apotheke	('pharmacy')
Doktor	('doctor')
Fakultät	('faculty')
Hypothek	('mortgage')
Katedrale	('cathedral')
Medizin	('medicine')
Metaphysik	('metaphysics')
Rezept	('formula/prescription')
Sekte	('sect')
Student	('student')
Text	('text')
Tinktur	('tincture')

Contact with Eastern Europe introduced words from the Slavic languages, including the following examples, taken from Waterman (1966, pg 122):

Graupe	('barley')
Gurke	('cucumber')
Pistole	('pistol')
Popanz	('puppet')

Trade for spices and exotic goods with the Far East also led to the introduction of words from Arabic and Persian (Waterman 1966, pg122):

Arabic	**German**	
alkoḥl	*Alkohol*	('alcohol')
aṭlas	*Atlas*	('atlas')
barrakân	*Barchent*	('fustian')
qahwa	*Kaffee*	('coffee')

Persian	**German**	
bûräh	*Borax*	('borax')
käbär	*Kaper*	('caper')
limûn	*Limone*	('lemon')
nâräng	*Orange*	('orange')

Trade between Southern Germany and Northern Italy also began to flourish in the 15th and 16th centuries, which led to many Italian words associated with trade and commerce being borrowed into German. Some examples (taken from Waterman 1966, pg 123) are:

Bank	('bank')
Bankrott from *banca rotta*	('bankruptcy')
Bilanz	('balance')
Kassa	('cash')
Konto	('account')
Kredit	('credit')
Porto	('postage')
Risiko	('risk')

This underlines the fact that the realm of trade provided a substantial source of borrowings, irrespective of whether they were from Arabic, Persian, Italian or the language of any other country which conducted business with Germany.

Italian accounts as well for many of the seafaring terms that were introduced into German at that time (Waterman 1966, pg125):

Italian	**German**	
barca	*Barke*	('sailing ship with three masts')
mezzana	*Besan*	('mizzen mast')
flotta	*Flotte*	('fleet')
fregata	*Fregatte*	('frigate')
golfo	*Golf*	('gulf')
galera	*Galeere*	('galley')
compasco	*Kompaß*	('compass')

Italian was also a major source of musicological terminology during the 16th century. Schweikle (1990, pg230) gives the following as examples:

Adagio	('adagio')
Duett	('duet')
Kapelle	('chapel')
Motette	('motet')
Sonate	('sonata')
Bariton	('baritone')
Sopran	('soprano')
Tenor	('tenor')

Italian seafaring and musical terms are ideal examples which demonstrate how the vocabulary of various specialist terminologies can be borrowed by another language.

There was a major turning point away from Latin in 1534. In that year the complete Bible of Martin Luther (1483-1546), the leader of the German Protestant Reformation, was printed. He had famously taken 20 years to translate the Bible from Latin into German. Although his translation was not the first, it became known as *the* German

Bible due to his superior use of language. In fact, the German he used in his translation became the basis of *Hochdeutsch*, the standard German spoken today. The printing of his Bible led to many publications being printed in German instead of Latin. Over the next 40 years, more than 100,000 copies of Luther's Bible, or *Lutherbibel*, were sold (Waterman, 1966 pg130). Even so, it was not until 1681 that German publications outnumbered Latin publications for the first time (Waterman, 1966 pg127).

The Thirty Years' War (1618 to 1648) also impacted on the German language, through the incorporation of military terminology, taken mainly from the Romance languages. Examples, from Waterman (1966, pg126), include:

Armee	('army')
Artillerie	('artillery')
Bajonett	('bayonet')
Füsilier	('fusilier')
Kanone	('cannon')
Offizier	('officer')
Soldat	('soldier')

From the middle of the 17th century continuing into the 18th century there was another surge of French influence on the German language. A major contributing factor to this was the reign of Louis XIV known as the 'Sun King', who ruled France from 1638 until 1715. During this time French culture including court life, fashion etc, was at its most prominent. In fact, many people including various monarchs preferred to speak French rather than German. Waterman (1966, pg 137) underlines this preference for the Romance languages when he states that:

> "Commenting upon the linguistic choices at the imperial court, the Prussian monarch Frederick the Great (1740-86) wrote - in French! - as follows: "Under the reign of Emperor Joseph [I, 1705-11] only Italian was spoken at the Vienna court; Spanish prevailed under Charles VI [1711-40], and during the rule of Francis I [1745-65], born Lorrain, French was more commonly spoken than German. The same held true in the Electorates.""

Of all the languages which have had an impact on German, French has highlighted the most how prestige and society can greatly influence borrowing.

Many German princes and princesses also married into the French royal family. The most famous of these, the youngest daughter of Maria Theresa, Empress of the Holy Roman Empire, Marie Antoinette, married Louis XVI in 1770 and became Queen of France in 1774[3]. Schweikle (1990, pg230) gives examples of French words which were brought into German at that time:

Baron	('baron')
Kavalier	('gentleman')
Präsident	('president')
Charm	('charm')
Onkel	('uncle')
Papa	('papa')
Tante	('aunt')
Kostüm	('costume')
Korsett	('corset')

Even after the French Revolution, which took place between 1789 and 1802, the French language continued to have an influence on German as many French nobles and members of the aristocracy fled to neighbouring Germany. Relevant French words introduced into German in the 18th century around the time of the French Revolution include (Schweikle (1990, pg230)):

Anarchist	('anarchist')
Bürokrat	('bureaucrat')
Defizit	('deficit')
Emigrant	('emigrant')
Fraktion	('parliamentary party')
Proletarier	('proletarian')
Reaktion	('reaction')
Terrorist	('terrorist')

Another historical era to have a considerable influence on the German language was the Enlightenment, which took place from the start of the 17th century until the end of the 18th century. The Enlightenment was a cultural and intellectual movement led mainly

[3]World Book Encyclopedia

by members of the literary and philosophical communities in Europe. Key figures include John Locke (1632-1704) and Jeremy Bentham (1748-1832) in England, and Jean-Jacques Rousseau (1712-1778), Montesquieu (1689-1755), and Voltaire (1694-1778) in France. It saw the spread of new ideas and new ways of thinking throughout Europe. When people adopted these new ideas they also adopted the terminology to go with them. Influence came mainly from England, France and Holland. Schweikle (1990, pg230) lists some of the German words which originated from French during this period:

Debut	('debut')
Despot	('despot')
Demokrat	('democrat')
Republik	('republic')
Tyrann	('tyrant')
Zivilisation	('civilisation')
Monsieur	('Mr./mister')
Friseur	('hairdresser')

Finally, the language to have the greatest influence in the 19th and 20th centuries was English, which I will deal with in greater detail in Chapter 5. But, this chapter has shown that borrowing can occur in every aspect of life; from religion, philosophy and politics to sport (jousting) and music. There are a multitude of reasons for the occurrence of borrowing, although only a few such as trade, immigration, new ways of thinking, trends in society and prestige have been mentioned here. My analysis will look at the current borrowing from English to see what types of borrowing and reasons are the same or different today. The next chapter gives an overview of the various categories of borrowings.

Chapter 4

Classification of Borrowings

The first classification system the process of word borrowing was developed by Werner Betz from 1936 onwards and is based on Old High German. He introduced the following terminology, which formed the foundations of his system: *Lehnbildung*, *Lehnbedeutung*, *Lehnübersetzung*, *Lehnübertragung*, *Lehnschöpfung*, *Lehnwort* and *Lehnprägung*, defined below. Later work by others such as Haugen (1950) and Weinreich (1974) was based on Betz's classification, developed it further and provided the equivalent English terminology.

In his definition of *Lehnwort* and *Fremdwort*, Haugen (1950) noted that German linguists differentiate between two types of borrowing for simple loans. He states:

> "The Germans here make a distinction between the Lehnwort, a historical fact, and the Fremdwort, a contemporary fact."

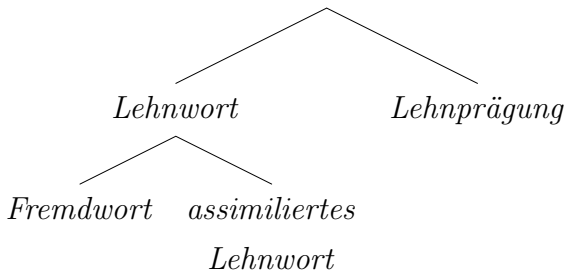
Directly translated, a *Lehnwort* is a 'loan word' and *Fremdwort* means 'foreign word'. There is slight disagreement among linguists regarding what exactly qualifies a word as a *Lehnwort* or a *Fremdwort*. However, the general consensus is that the difference between the two terms lies in the given word's degree of integration into the receiving language. *Lehnwörter* are usually more integrated than *Fremdwörter*: they have appeared in the receiving language for a longer period of time and usually have origins from Latin, Greek or the Romance languages. The origin of these words is not readily apparent, they tend to be only recognised by historical evidence or by using an etymological dictionary. On the other hand, *Fremdwörter* and many internationalisms can be more easily identified because they are integrated to a lesser degree; there is no assimilation or only partial assimilation. Yang (1990, pg11) gives a fuller definition for both terms, describing how they differ from each other with regard to their various levels of integration. In his opinion, *Fremdwörter* are:

> "... Lexeme oder Lexemeverbindungen, die aus einer Fremdsprache übernommen und im Deutschen ohne phonologische, orthographische, morphologische und semantische Veränderung gebraucht werden und deren fremde Herkunft sich deutlich und leicht erkennen läßt, wie z.B Callgirl, Cowboy, Jeans, ..."
>
> ("... lexemes or connecting lexemes which are borrowed from a foreign language and are used in German without any orthographical, morphological or semantic change and whose foreign origin is clearly and easily recognisable, like for example Callgirl, Cowboy, Jeans, ...")

On the other hand, his definition for *Lehnwörter* is:

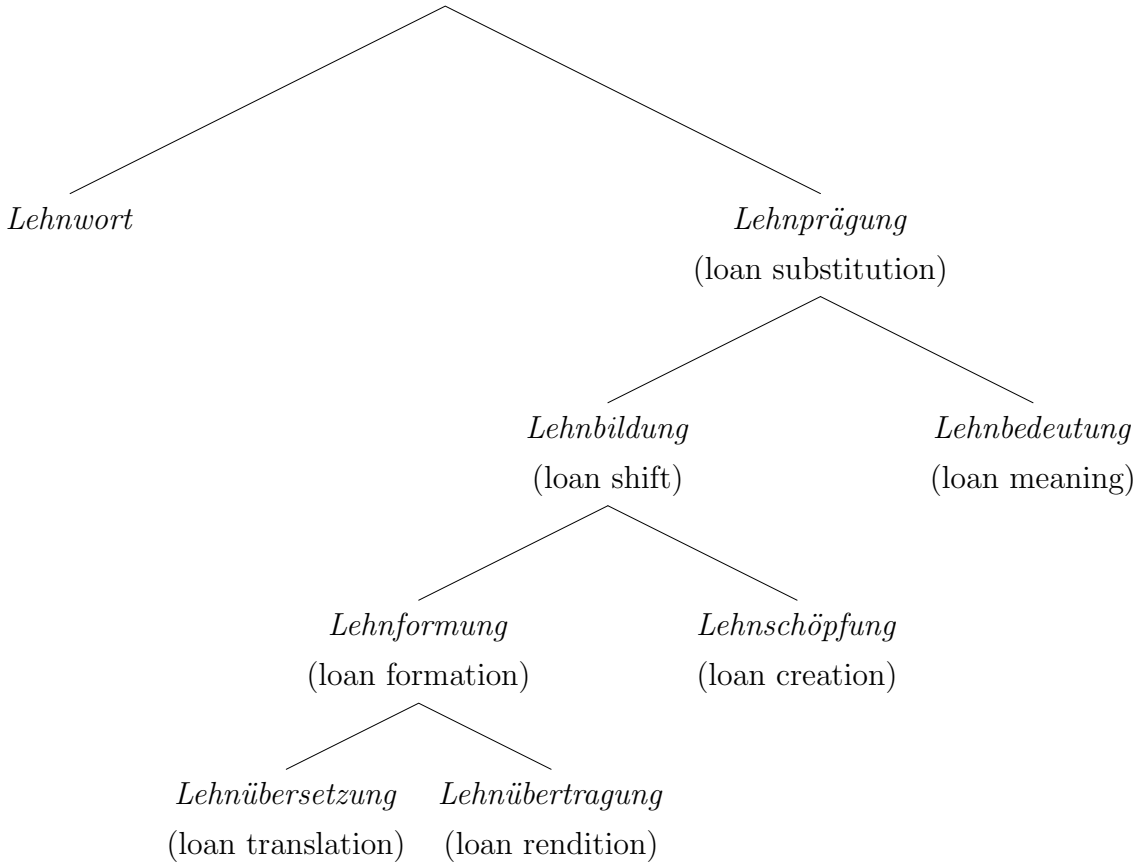
> "Das Lehnwort ist wie das Fremdwort gleichfalls ein aus einer Fremdsprache entlehntes Wort, das sich aber phonologisch und/oder morphologisch und/oder orthographisch der übernehmenden Sprache angeglichen hat."
>
> ("A loan word is similar to a foreign word as it is also a word borrowed from a foreign language, but it has been adapted phonologically and/or morphologically and/or orthographically to the borrowing language.")

Therefore, the integration of a borrowing, whether on a phonological, morphological or orthographical level, plays a key role in differentiating between a *Lenhwort* and a *Fremdwort*.
Betz's system for borrowing was divided into two main categories, *Lehnwort* and *Lehnprägung* (loan substitution) as follows:



He divided the *Lehnwort* category in two, *Fremdwort* (foreign word) and *assimiliertes Lehnwort* (assimilated loan word).

His *Lehnprägung* (loan substitution) category was further divided as shown below in the diagram, which is adapted from Kirkness (1984):



The two subcategories of loan formations or *Lehnformungen* attempt in varying degrees to represent the words and affixes from the donor language by words in the receiving language. A loan translation or *Lehnübersetzung* is where each individual part of the word from the donor language is rendered literally by its counterpart in the receiving language. For example, the German word *Familienplanung* meaning 'family planning' or *Luftsack* meaning 'airbag'. If the rendering of the word from the donor language is only partially literal, then we call this a loan rendition or *Lehnübertragung*. A good example of a loan rendition in German is *Wolkenkratzer*, which literally means 'cloud-scraper', but actually means 'sky-scraper'. On the other hand, if nothing of the word from the donor language is literally translated but an attempt is made at an interpretation of its meaning by an approximate translation, we refer to this as a loan creation or *Lehnschöpfung*. For example, *hovercraft* in English has the loan creation *Luftkissenfahrzeug* as its equivalent in German.

But not everyone agrees that "loan creations" are a valid category. For instance, Carstensen

(1983, pg22 - cited in Russ 1994, pg 253) rejects loan creations completely. For the example *Luftkissenfahrzeug* above, he argues that it merely renders English *hovercraft* and is therefore a loan rendition. Viereck (1984, pg 118) also expresses doubt about the validity of loan creations when he comments that:

> "It is debatable whether loan creations in which English words are rendered completely freely in German can be considered to belong to the borrowing process at all."

and Kirkness(1984, pg22) also rejects loan creations on the grounds that

> "...the indissoluable unity of form and content of the linguistic sign is not maintained..."

and that loan creations are only

> "...replacements or puristic substitutes for German foreignisms."

It is clear that loan creations do exist, but whether they are a phenomenon of borrowing or not is debatable. The main argument put forward, is that loan creations are in fact just new German words and not borrowings at all. The important counterargument for the case against this and in favour of loan creations as an aspect of borrowing, is that loan creations are filling a gap in German vocabulary. This gap corresponds to terms which exist in a foreign language that have no equivalent in German. So, to make up for this the German language derives new loan creations by 'borrowing' the corresponding concept from the foreign language. Therefore, loan creations are a valid category because even if they don't borrow the terminology they still borrow the concept. For instance, the hovercraft was invented in 1956 in England by Sir Christopher Cockerell and the definition given for a hovercraft in the Oxford English Dictionary is:

> "a vehicle or craft supported by a cushion of air ejected downwards against the surface (of land or sea)"

Literally translated, *Luftkissenfahrzeug* means 'air cushion vehicle/craft' In German, *Fahrzeug* can mean either 'vehicle' or 'craft' as a *Luftfahrzeug* is translated as an 'aircraft'. If you take *Fahrzeug* to mean 'craft' then you have 'air cushion craft', which means it is partially rendered and Carstensen is justified in calling it a loan rendition. But, on the other hand, if *Fahrzeug* has the meaning 'vehicle' and taking into consideration the definition given, then *Luftkissenfahrzeug* is the loan creation of 'air cushion vehicle' where it is borrowing the concept of a hovercraft from English. So, it can be argued that *Luftkissenfahrzeug* belongs to either category. Now to prove that a loan

creation category is useful, evidence of concrete examples for loan creations are needed. Let us look at the four examples which Yeandle (2001, pg352) identifies as loan creations due to the fact that:

> "Each of these is composed of elements that do not literally or approximately translate the original."

These are *Arbeitsplatzgerät* ('desktop printer'), *Bildpunkt* ('pixel'), *Korrekturprogramm* ('spell checker') and *Tabbellenkalkulation* ('spreadsheet'). Each of these terms bears no resemblance nor is a translation of its equivalent in English, as the translation of *Arbeitsplatzgerät* is 'work place device', *Bildpunkt* is 'picture point', *Korrekturprogramm* is 'correction program' and lastly, *Tabbellenkalkulation* is 'tables calculation'. Therefore, they are loan creations and therefore constitute a valid category of borrowing.

The category for semantic borrowing, loan meaning or *Lehnbedeutung*, is when a word in the receiving language already has one or more meanings and it is given a new meaning modelled on the meaning of a word in the donor language. Two examples, which are frequently referred to with regard to German, are the verbs *feueren* and *kontrollieren*. The first of these means 'to fire' or 'to shoot (at)', but recently *feueren* has also taken on the new meaning from English 'to dismiss someone from a job'. Similarly, *kontrollieren* originally meant 'to check', but now it is also used as having the meaning 'to control'.

Haugen (1950) took a slightly different approach. Unlike Betz, his system consisted of three categories - *völlstandigen Übernahme* (complete importation), *partieller Übernahme* (partial importation) and *null Übernahme* (no importation). Fink (1968) and later Viereck (1986) use similar terminology to that of Haugen. Fink divides his categories into *keine Substitution* (no substitution), *Teilsubstitution* (partial substitution) and *Vollsubstitution* (full substitution). Duckworth (1979) follows Betz's classification, but Carstensen (1979) used *evidenten (aüßeren)* and *latenten (inneren) Einflüsse* or direct and hidden loans to describe borrowing. He referred to Betz's system as being "extreme" and said that it could not

> "... be generalized and applied to loan-processes and languages in general..." (Carstensen, 1992 pg88).

Therefore, when he was compiling his *Dictionary of Anglicisms*, he used

> "... the labels "aus engl ..." for direct loans and "nach engl ..." for indirect loans; *aus* corresponds more or less to English *from*, *nach* to English *after* (*the model of*)." (Carstensen, 1992 pg93).

A further category of borrowing which has been introduced is that of *Scheinentlehnungen* or pseudo-loans (Yang, 1990). Pseudo-loans occur where a lexeme of the donor language is used to produce a word in the receiving language. The resulting word looks like a word from the donor language, but it doesn't actually occur in the donor language. Examples of pseudo-loans which occur in German include *Twen*, *Dressman*, *Showmaster*, *Pulli* and *Profi*, which all come from English. *Twen* is from *twenty*, meaning 'someone in his or her twenties'. *Dressman* is formed from *dress* and *man*, meaning 'male counterpart to mannequin' or 'male model'. *Pulli* and *Profi* are clippings, which are derived from *pullover* and *professional* respectively. Another frequently quoted pseudo-loan is *Handy* meaning a 'mobile or cellular phone', but which would be unrecognisable to a speaker of English (Lipka, 2001, pg 308). There is some disagreement, however, about whether or not pseudo-loans should be included as a category of borrowing. A few linguists including Kirkness (1984) dismiss them as not being a valid category due to the fact that pseudo-loans do not actually occur in the donor language. He reiterates this again later (2001, pg322) while discussing anglicisms. He states:

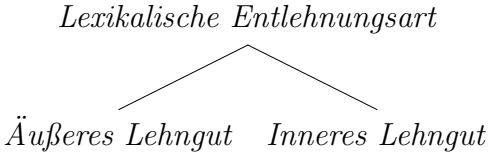
> "...I would want to label as Anglicisms only those items borrowed from English, and thus describe (German) Anglicisms as (German) lexical items of English origin or borrowed from English. Pseudo-borrowings, for instance, obviously fall outside this description: German (speakers) cannot borrow from English a lexical item or a significate not attested in English. On principle, therefore, I would not want to label them as Anglicisms."

Here, the counterargument is that pseudo loans would not occur at all in German, but for the existence of the word in English from which they are derived. For example, *Twen* in German would not exist, but for the word *twenty* in English and likewise *Pulli* would not exist without *pullover*, therefore pseudo loans are in fact a valid category of borrowing.

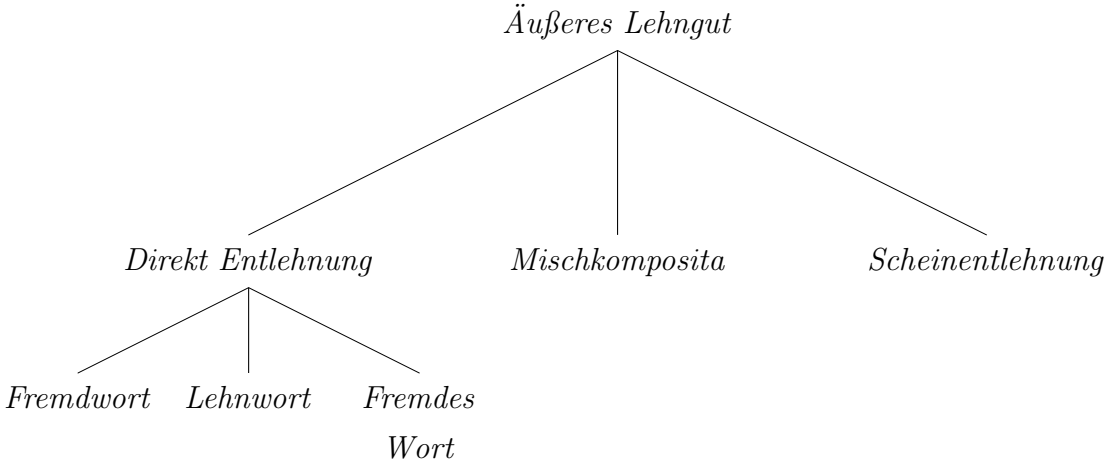
I would also like to briefly mention the category of loan phrases used by Lehnert (1986 pg139), which are phrases or idioms of the English language that have been borrowed into German. Some of the more interesting examples given by Lehnert are: *Wir sitzen alle im gleichen Boot* - 'we are all in the same boat', *sein Gesicht verlieren (wahren)* - 'to loose (save) one's face', *das Beste aus etwas machen* - 'to make the best of something', *das Sagen haben* - 'to have the say', *jemandem die Schau stehlen* - 'to steal the show (from a person)', *eine Party geben* - 'to give a party', *Prioritäten setzen* - 'to set priorities' and *das geht unter die Haut* - 'that gets under your skin'.

To date, the most detailed overview of the classification of borrowing appears in Yang

(1990). He divides lexical borrowing into two categories:



These categories are *Äußeres Lehngut* (external borrowing) and *Inneres Lehngut* (internal borrowing). He then proceeds to divide *Äußeres Lehngut* (external borrowing) as follows:



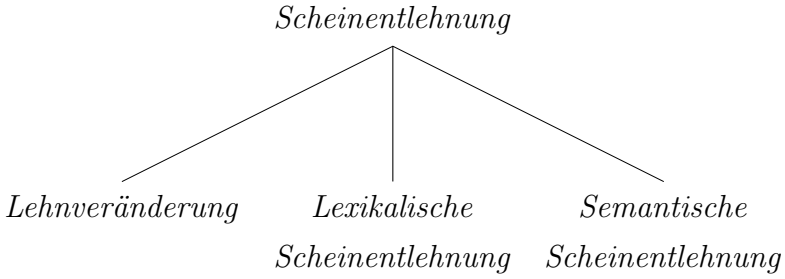
Direkt Entlehnung or direct borrowing has three subcategories, *Fremdwort*, which Yang (1990) differentiates as a 'foreign loan', *Lehnwort* as a 'loan word' and *Fremdes Wort* is a 'foreign word'. In my opinion, *Fremdwort* (foreign word) and *Lehnwort* (loan word) as previously discussed, are already well documented, widely used and accepted. Therefore changing the meaning of *Fremdwort* to 'foreign loan' and adding a third subcategory *Fremdes Wort* to mean 'foreign word' instead is unnecessary and just creates confusion.

The second subcategory of *Äußeres Lehngut* or external borrowing are *Mischkomposita* or literally translated 'mixed composites', meaning 'compounds'. They correspond to Fink's (1968) category of *Teilsubstitutionen* or 'partial substitutions'. According to Yang (1990, pg 15), *Mischkomposita* can either be:

1. *Mischkomposita* according to an English model, e.g. *Popmusik* after *pop music* and *Haarspray* after *hair spray.*

2. *Mischkomposita* without following an English model, e.g. *Managerkrankheit*, which corresponds to *stress disease* in English.

The next category, which is the *Scheinentlehnung* or pseudo loan category, is divided into three subcategories:



These are *Lehnveränderung* (loan change), *Lexikalische Scheinentlehnung* (lexical pseudo loan) and *Semantische Scheinentlehnung* (semantic pseudo loan). Yang defines *Lehnveränderungen* (loan changes) as morphologically changed borrowings of English words, which Carstensen divided into four subcategories. These subcategories (taken from Yang 1990, pg 13) are:

1. Shortening of single words, e.g. *Pulli* from *pullover*, *Profi* from *professional*, *Deo* from *deodorant*, etc.

2. Shortening of compounds, e.g. English *foxtrot* and *foxterrier* are both shortened to *Fox* in German, *Pocket* is shortened from *pocket camera*, etc.

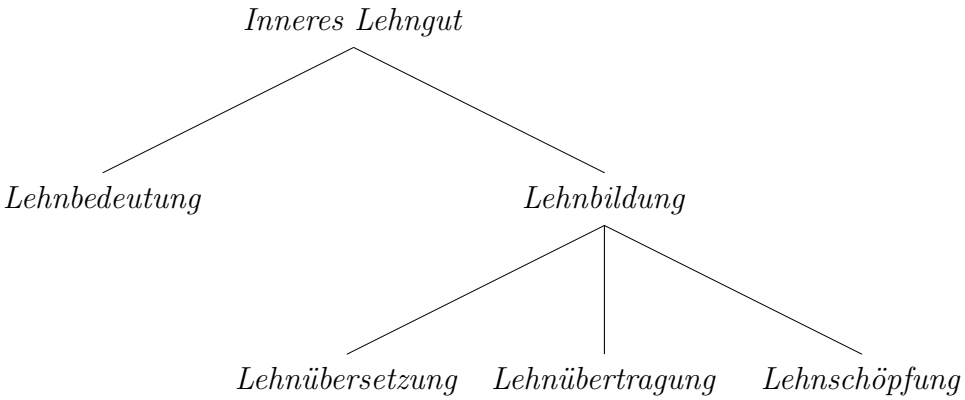
3. Shortening of units composed out of more than one word, e.g. *Gin Tonic* from *gin and tonic* in English.

4. Morphologically changed forms, e.g. *Mixpickles* from *mixed pickles* in English.

The second *Scheinentlehnung* category, *Lexikalische Scheinentlehnungen* (lexical pseudo loans), are loans which are constructed from English lexemes, but which are unrecognisable to a native English speaker. The most frequently cited example for this is *Twen* in German, which I have already mentioned, but other examples include *Callboy* which is analogously formed from *callgirl* and *Snobiety*, which is constructed from *snob* and *society* (Yang 1990, pg13). Lastly, *Semantische Scheinentlehnungen* (semantic pseudo loans) are where an English word is borrowed in its original form where it has one or more meanings in English, but when it is brought into the receiving language it can take on one or more meanings which it did not previously have in English. One of the examples that Yang (1990, pg 14) provides for this category is *Flirt*. In English this word means a 'person who flirts', but in German it means the 'treatment of the person' in question, i.e. the act of flirting, and it has also expanded in meaning to include 'political

convergence' (*politische Annäherung*) in specific circumstances.

The subcategories of the other main category, the *Inneres Lehngut* or internal borrowing category, are divided following Betz's classification system as already described above:



Thus the classification of borrowing is a very complex and complicated subject, which is often contradictory in nature, due to differing terminology and disagreement over the validity of various categories. A clearer picture of the different terminology used to categorise borrowing by the various individuals above, can be seen from the table below:

Betz Duckworth Kirkness	Lehnwort		Lehnprägung
Carstensen	evidenten (äußeren) Einflüssen		latenten (inneren) Einflüssen
Yang	Äußeres Lehngut		Inneres Lehngut
Haugen Viereck	null Übernahme	partieller Übernahme	völlstandigen Übernahme
Fink	keine Substitution	Teilsubstitution	Vollsubstitution

Ultimately, Betz's terminology remains the core terminology throughout. Even though Carstensen finds Betz's classification too "extreme", his own terminology though suitable for the classification of borrowings in dictionaries may be considered to be too simple for a more detailed analysis by others. In my opinion, the more extreme classification is that of Yang's as it is very complex and much too detailed, therefore for my analysis I will use Betz's classification as I feel it is the most suitable for my purposes and it is the middle ground between the other two.

Chapter 5

English and German

As mentioned above, one language that has been influenced by English is German. I wish to focus on English in particular because there is concern over how much English has influenced German in recent times and this is quite a controversial topic at the moment. Anglicisms have appeared in German as far back as the Middle Ages. During the Early Middle Ages there were hardly any anglicisms borrowed at all, although a few were introduced into German mainly in connection with religion and Christianity. For instance, *gotspell* (Old High German) from the Anglo-Saxon *gõdspell* meaning 'good news' or 'gospel' (cited in Viereck 1986, pg107). In the Late Middle Ages there were slightly more anglicisms present in German, but they were mainly confined to trade and seafaring terms. For example, *das Boot* = 'boat' can be found in documents from Lübeck dated as far back as 1290 (Palmer 1950, cited in Viereck 1986, pg107). Evidence of borrowing during the 16th century, is provided by Palmer (1950, cited in Viereck, 1986 pg107). His examples include *Peterspfennig* (1537) from the English *Peter pence*, *Dogge* - 'mastiff' (1571), *Gentleman* (1575) and *Mylord*, 'lord' (1599). Viereck also makes a note of the fact that although Palmer includes *Gentleman* in his examples here, it was not widely used until the beginning of the 18th century. From the middle of the 17th century onwards interest in England increased, though many of the examples of borrowing found in German are confined to political terms. Viereck (1986) provides, *Unterhaus* - 'House of Commons'/'Lower House' (1649), *Oberhaus* - 'House of Lords'/'Upper House' (1661), *Haus der Gemeinen* (1661), *Bill* (1683) and *Hochverrat* - 'high treason' (1668). But, for the last example Waterman (1966, pg176) says that *Hochverrat* was borrowed from French *haute trahison* during the French Revolution. This shows that more than one language could be responsible for introducing a particular borrowing into a language, but an etymological dictionary will usually settle any dispute over the origin of a borrowing. Other examples of borrowings, that Schweikle (1990, pg230) provides, for the 17th century are: *Pudding*, *Punsch* - 'punch' and *Parlament* - 'parliament'. Further contact

between English and German, as previously mentioned, occurred in the 17th and 18th centuries during the Enlightenment or the Age of Reason as it is also known. Viereck (1986, pg.109) lists some terms from philosophy that were introduced into German under the influence of English at that time: *Freidenker* - 'free thinker'/'libertine' (1715), *Ideenassoziation* - 'association of ideas' (1736) and *Common Sense* (1766). Other terms from the natural sciences and medicine include: *Spektrum* - 'spectrum' (1791), *Barometer* (1743), *Impfung* - 'vaccination' (1766) and those from politics include: *europäisches Gleichgewicht* - 'balance of Europe' (1702), *Koalition* - 'coalition' (1791) and *Opposition* (1776). Viereck (1986) states that the 18th century also saw an increased exchange of literature between England and Germany. In particular he notes that Weiland translated the works of Shakespeare, including "Hamlet", "Twelfth Night" and "Romeo and Juliet", into German between 1762 and 1766.

The Industrial Revolution during the 18th and 19th centuries in England was also a major contributor of new terminology to the lexicon of German. In fact, compared to other countries in Europe, Britain was the pioneer of the Industrial Revolution. Large scale industrialisation reached Belgium in 1830, it then moved on to France and finally reached Germany in the late 19th century (Hearder, 1970). Viereck (1986, pg109) lists *Import* (1782), *exportieren* - 'to export' (1787), *Banknote* (1752) and *Papiergeld* - 'paper money' (1739) as borrowings from the areas of trade and commerce. In 1830, Britain was producing four fifths of the world's total production of coal, but France and Germany slowly caught up. For instance, between 1830 and 1850 coal production in Germany doubled[3]. Yet Waterman (1966, pg126) notes, that of all the many different types of specialist terminology, the language of the miner

> "...exhibits almost no foreign influences"

The important significance of this shows that borrowing was unnecessary because German had already established its own terminology for mining.

George Stephenson built the first steam locomotive railway from Stockton to Darlington between 1821 and 1825 (Hearder, 1970). At first the railways were only used to transport goods, but later they also transported passengers. The first railway in Germany was built in 1835 linking Nuremberg and Fuerth, which was a distance of only a few miles (Hearder, 1970). The American inventor Robert Fulton built the first commercially successful steamboat in 1807[3] and the first steamboats to cross the Atlantic arrived in New York on the 23rd of April 1838 (Hearder, 1970). Terminology borrowed from English to do with the various inventions of the Industrial Revolution include *Dampfschiff* -

'steamship'/'steamboat' (1816), *Dampfmaschine* - 'steam-engine' and *Lokomotive* - 'locomotive' (1838) (Stiven 1936, cited in Viereck, 1986 pg109). Other words given by Schweikle (1990, pg230) that were borrowed from English during the 18th century are: *Gentleman*, *Frack* - 'dress coat', *Club*, *Spleen*, *Budget*, and those during the 19th century include: *Hygiene*, *Start*, *Streik* - 'strike' and *Whisky* - 'whiskey'. German during the 19th century also experienced an influx of anglicisms especially with regard to fashion, food and sport. Viereck (1986) comments that the word *Sport* itself was used frequently in German after 1850. Other examples for the three categories mentioned above include: *fashionable*, *Plaid* ('a shawl or lap rug made of plaid'), *Pullover*, *Pump* ('high-heeled shoe'), *Slipper*, *Smoking* ('dinner jacket'), *Sweater*, *Trainer*, *Ulster* ('a long loose overcoat'): *Beefsteak*, *Roastbeef* and *Champion*, *Derby*, *Fußball* - 'football', *Tennis*, respectively (Waterman 1966, pg178).

The period of influence during the 20th century can be divided as follows; the period up until the First World War, the interwar years and lastly the period after the Second World War ended in 1945. Viereck (1986, pg111) lists *Untergrundbahn* from 'underground line', *Thermoflasche* - 'thermos flask', *Polo*, *Golf*, *Bluff* for the period leading up to the First World War and *Badminton*, *Lautsprecher* - 'loudspeaker', *Einbahnstraße* - 'one way street', *Wochenende* - 'weekend' and *Sex Appeal* for the interwar period. After 1945, there was a huge increase in the number of anglicisms entering German with more coming from American English than British English, though it is often difficult to distinguish between the two. For instance Schweikle (1990, pg230) lists the following anglicisms as being specifically borrowed from American English during the 20th century: *Clown*, *Girl*, *Revue*, *Star*, *Party*, *Come-back*, *Quiz*, *Jazz*, *Beat*, *Hit*, *Song*, *Gag*, *Motel*, *Hostess*, *Jeep*, *Jeans*, *Make-up*, *Manager*, *Boss*, *Job*, *Trend*, *Lobby*, *Interview*, and *high*. Today, though all of these words are also used in British English or the English language as a whole. Viereck (1986 pg 110) states that the political, industrial, technical and scientific predominance of the United States was the main reason for there being a higher number of anglicisms from American English compared to British English, though American culture also had an influence as many words were borrowed from the areas of entertainment and recreation, for example *Bowling*, *Flopping*, *Jogging* and *Windsurfing* (taken from Lehnert, 1986 pg136).

More recently, i.e. in the latter half of the 20th century, various events can be credited with bringing English and German into contact with one another. These are the formation of the European Union and the advances in technology such as the invention of the computer and the Internet. The European Union, or the European Economic Com-

munity as it was originally called, brought the various countries of Europe into contact with each other on a large scale. Common policies for trade, agriculture, finance were established and the citizens of member states are allowed to move to and work in other member states. The Treaties establishing the European Economic Community (EEC) were signed by Belgium, France, Germany, Italy, Luxembourg and the Netherlands on the 25th of March 1957 and came into force on the 1st of January 1958. Ireland and the United Kingdom joined on the 1st of January 1973, which meant that English was now one of the official languages of the European Union.

The invention of computers was monumental because of the changes they brought. Today computers are used for a multitude of purposes and in practically ever area of life. More recently, the World Wide Web, the Internet and Email have also led to increased contact between the languages of the world including the two languages in question, English and German. The Internet is the new medium of communication. Because of microphones, speakers, webcams and other new technologies the Internet can also incorporate the role of radio, television and the telephone. The Internet was invented in America and developed in the English-speaking world therefore, at the beginning English was the sole language of the Internet. But, due to globalisation other languages have eventually come online. A survey carried out in 1997 by Babel reported that of the 3,239 webpages investigated 82.3% were in English. Of the remainder, 4% were German , 1.6% Japanese, 1.5% French, Spanish 1.1%, with Swedish, Italian, Portuguese, Dutch, Norwegian, Finnish, Czech, Danish, Russian and Malay representing less than 1%, and 5.6% being unknown (Crystal, 2001 pg217). Even though other languages are appearing these figures still reflect the dominance of English on the Internet. Apart from the obvious example, *Computer*, other anglicisms in German from the area of technology include: *Antivirenprogramm* - 'anti-virus program', *anwenderfreundlich* - 'user-friendly', *Bandbreite* - 'bandwidth', *Betreibssystem* - 'operating system', *Datentyp* - 'data type', *Digitalkamera* - 'digital camera', *Doppelklick* - 'double click', *Grafikkarte* - 'graphics card', *Installationsprogramm* - 'installation program', *Netzwerkkarte* - 'network card' and *Speicherkapazität* - 'memory capacity', all of which are examples of loan translations given in Yeandle (2001, pg344). The next chapter, Chapter 6 examines how anglicisms are integrated into German.

Chapter 6

Integration of Anglicisms

When it comes to the integration (i.e the alteration of a borrowed word to such an extent that native speakers are no longer aware of any "foreignness") of anglicisms from a donor language into the receiving language, anglicisms can be broadly divided into *Lehnwörter* (loan words, i.e. those which have been assimilated phonologically, orthographically, morphologically or semantically) and *Fremdwörter* (foreign words, i.e. those which have no assimilation). Anglicisms found in German after 1945 generally fall into the *Fremdwörter* category.

In his study of Anglicisms in the magazine, "*Der Spiegel*", Yang (1990, pg 9) identified three categories of anglicisms:

> 1. Conventionalized anglicisms, which are completely integrated and accepted by German speakers and which are no longer considered as foreign words. For example, *Computer*, *Manager*, *Keks*, *Rock 'n' Roll*, *Jeans*, and *Sex*.
>
> 2. Anglicisms in the process of being conventionalized, which are only partly orthographically integrated and are still as considered foreign word. For example, *Factory*, *Gay* and *Underdog*.
>
> 3. Proper names, quotations or words related specifically to England, America or other English speaking countries such as Ireland, Canada, Australia etc. For example, *Boat People*, *High School*, *Highway*, *US-Army* and *Western*.

Fremdwörter, or loans which are unassimilated or only partially assimilated, are usually identified as possessing features which are not present in German. These features which

differentiate a loan from a German word may occur in the areas of orthography, phonology, morphology and semantics. Filipovic (1996), gives a more detailed description of the integration process that is involved in each of these areas.

6.1 Orthography

On the orthographical level, Filipovic (1996) states that an anglicism is either:

> 1. formed on the basis of the pronunciation of the corresponding English source word, e.g, (English) *cooly* /ˈkuːlɪ/ → (German) *Kuli* ('trolley').
>
> 2. follows the orthography of the source without any change, e.g, (English) *Ulster* /ˈʌlstə/ → (German) *Ulster*.
>
> 3. follows partly the pronunciation and partly the spelling of the source word in either order, e.g. (English) *bowling green* /ˈbəʊlɪŋgriːn/ → (French) *boulingrin*, or else

Filipovic (1996) did not provide an example between English and German for this category. A possible example is *Digitalkamera* - 'digital camera' because the first half of the compound, *Digital*, follows the English spelling, but the second half, *kamera*, follows the pronunciation of *camera* in English. It is quite difficult to find examples for this category as most words in German are pronounced following their spelling.

> 4. is formed under the influence of an intermediary language (e.g. French) through which the English source word has passed on its way to the receiving language (i.e. German), e.g, (English) *budget* /ˈbʌdʒɪt/ → (German) *Budget* (through French).

So, to summarise Filipovic's classification, an anglicism either conforms to German rules and is spelt according to its pronunciation, keeps its original English spelling or is a mixture of both.

Probably the most obvious indication of orthographic change is where all nouns which are anglicisms become capitalised when integrated into German. Other changes in spelling include the English letter *c* being changed to either *k* or a *z* in German. Russ (1994,

pg254) states that initial <*cl*> and <*cr*> correspond to <*kl*> and <*kr*> respectively, and an initial <*k*> before a back vowel in English remains <*k*> in German. He also notes a discrepancy with spelling because anglicisms can occur with either the English or German spelling e.g. *Klub/Club*, *Kode/Code*, *Zigarette/Cigarette*, *Zertifikat/Certifikat*. The voiceless post-alveolar fricative [ʃ], which is <*sh*> in English, corresponds to <*sch*> in German, e.g *Schock*, but most loans keep the <*sh*>, e.g. *Show*, *Shaker*, *Shorts* (Russ, 1994, pg254). It is also common for consonants to become doubled when integrated into German, e.g *babysit* → *babysitten*, *job* → *jobben*, *stop* → *stoppen*. This doesn't just apply to verbs, examples with nouns include: *clip* → *Klip(p)*, *trip* → *Tripp*, *slip* → *Slipp* and *stop* → *Stopp* (Viereck, 1986 pg 114). The English language has also introduced words into German which have the letter *y* in the final position e.g. *Boy*, *Baby*, *Party*, *Rowdy*(taken from Russ 1994, pg254). To form the plural of these words in English the -*y* is removed and -*ies* is added, but generally in German -*s* is just added instead, e.g *Partys*. Furthermore, Russ (1994, pg255) draws attention to the fact that the genitive apostrophe in English is being used in German with proper names, e.g. *Beck's Bier*, but that it is restricted to names ending in *s*, *ß*, *tz*, *x* or *z*, for example *Sokrates' Finger*. And finally, where there is more than one element involved, i.e in the case of compounds, many anglicisms either occur as two separate words, e.g. *After Shave*, *American Football*: or as two words with a hyphen in between, e.g. *Free-Jazz*, *Micro-Processor*, *Mini-Floppy*, *Mini-Handmixer* or else are two words written as one, e.g *Ghostwriter*, *Hardtop*, *Offsetfolien*, *Longdrink* (examples taken from Yang 1990, pg88).

6.2 Phonology

With phonology, the level of integration is determined by the degree of similarity and dissimilarity between the phonological systems of German and English. Filipovic (1996) provides three terms to account for the changes that can occur when integrating an anglicism on the phonological level:

1. 'zero transphonemisation', when there is no difference between the phonological systems, the anglicism is pronounced according to the German pronunciation, e.g, (English) *brunch* /brʌntʃ/ → (German) *Branch* /brantʃ/.

2. 'partial' or 'compromise transmorphemisation', if some elements of the German differ in phonological description from the English, the pronunciation

of the anglicism is only partially the same as the English source word, e.g, (English) *dandy* /ˈdændɪ/ → (German) *Dandy* /ˈdɛndi/, and

I disagree with Filipovic above when he cites *brunch* and *Branch* in the this example as an instance of 'zero transphonemisation'. Following his definition, an anglicism is pronounced according to the German pronunciation when there is no difference between the phonological systems, but although *brunch* and *Branch* are very similar phonologically they are in fact different due to having two different phonemes, [ʌ] and [a], which is clearly obvious from their phonetic transcription. A better example to fit the description of 'zero transphonemisation' would be *sex* /sɛks/, which is *Sex* /sɛks/ in German as there is no difference phonologically between the two.

3. 'free transmorphemisation', is when elements of the English source word do not have any equivalents in German, so the substitution is then free, e.g, (English) *weekend* /wiːkˈend/ → (German) *Weekend* /ˈviːkɛnt/.

The third example is justified because although we have a /*w*/ sound in English there is no equivalent sound in the German system. Where a word is written with a <*w*> is always pronounced as a /*v*/ sound. A further observation about the last example is that the letter *d* changes to a <*t*> in the German sound system. This is because any word in German that has <*d*> in final position is always pronounced as a /*t*/ sound. All consonants in the final position of a word in German are voiceless, whereas in English they can either be voiced or voiceless. Therefore, changing voiced <*d*> to voiceless <*t*> in the above example is adhering to an important rule called *Auslautverhärtung*, whereby any word which is borrowed from English into German that has a final voiced consonant becomes devoiced when pronounced in German.

Other differences between the two phonological systems of English and German are examined by Russ (1994, pg 255). He states that for the English diphthongs [ei] and [əu] German speakers will substitute either [eː] or [ɛː], for example *Trainer*, *Spray* and [oː], *Soul*, *Toast*. The sound [ɜ] as in the English words *girl* and *shirt* does not exist in German therefore German speakers often use [øː] instead. The same is true of [ʌ], so [a] is substituted in words such as *Curry* and *Cutter* and for *Brunch* above. German speakers normally agree that [ɛ] rather than [a] is closer to the [æ] sound in English. Therefore, [ɛ] often appears written as *ä* in brand names, e.g. *das Big-Mäc* or to germanicize foreign words, e.g. *Cräcker* - 'cream cracker' (Russ 1994, pg255). Another sound which doesn't exist in German is the consonant [ʤ] as in *jungle*, but its usual equivalent in German is

[ʧ] as in *Job*, *Jeans* or *Jet* because it is just the same except voiceless.

6.3 Morphology

Regarding changes on the morphological level Filipovic (1996) states that the process can either be:

1. 'zero transmorphemisation', when a suffix of German is not added to the anglicism, i.e. the anglicism remains exactly the same as its English source word, e.g. (English) *bluff* → (German) *Bluff*.

2. 'partial' or 'compromise transmorphemisation', when the anglicism retains the English suffix of the source word, e.g. (English) *speak**er*** → (French) *speak**er***, or

Filipovic does not provide an example for this between English and German, but one that I can think of is (English) *kill**er*** → (German) *Kill**er***.

3. 'complete transmorphemisation', where the original suffix of the anglicism is completely replaced by a corresponding native suffix, e.g. (English) *constabl**e*** → (German) *Konstabl**er***.

Verbs either take the -*en* or -*ieren* ending, e.g. *jobben*, *checken*, *telefonieren*, *reservieren*, *programmieren*, and are always conjugated like weak regular verbs, e.g.

ich	*programmiere*	('*I programm/am programming*')
du	*programmierst*	('*you programm/are programming*')
er/sie/es	*programmiert*	('*he/she/it is programming*')
wir	*programmieren*	('*we programm/are programming*')
ihr	*programmiert*	('*you programm/are programming*')
sie	*programmieren*	('*they programm/are programming*')
Sie	*programmieren*	('*you programm/are programming*')

When it comes to deriving different tenses, the anglicisms conform to the normal process necessary to form each individual tense in the German system. For example, to form the

Past tense of *jobben* (to take a job/to do odd jobs), the affixes *ge-* and *-t* are circumfixed to the verb, i.e. *gejobbt*.

Adjectives borrowed from English can present a few problems as they don't all necessarily take their respective German adjective endings. Russ (1994, pg258) says that most adjectives like *smart*, *clever*, *cool*, *fair* and *postmodern* take their appropriate endings, e.g. *ein faires Angebot* ('a fair offer'). Durrell (1996, pg123) states that foreign adjectives ending in a vowel do not take endings. Many of these are colour terms, for instance, *ein beige Rock* ('a beige skirt'), *ein lila Mantel* ('a lilac coat'), *die orange Farbe* ('an orange colour'), *ein rosa Kleid* ('a pink dress') and *eine prima Ware* ('a fantastic product'). But, this can be overcome by adding a suffix like *-farben* or *-farbig*, for example, *ein rosafarben**es** Kleid* ('a pink coloured dress'). Russ (1994, pg258) also cites *sexy*, *groggy*, *ladylike* and *live* as adjectives which do not inflect because they mostly occur in predicative position. Therefore, they don't take any adjective ending in German and remain as they occur in English. In fact, only attributive adjectives inflect in German (Hammer, 1996). For instance, *Er ist sehr sexy.* ('He is very sexy.') is a sample sentence with the adjective in predicative position and because this is the most frequent way in which *sexy* is used, it doesn't take any endings even when used as an attributive adjective, as can be seen from *ein sexy Kleid* ('a sexy dress'). When adjectives are first borrowed into German there can be uncertainty over whether they should be used with or without endings and as a result discrepancies arise. Hohenhaus (2001, pg164) cites *easy* as an example of this, as there have been various occurrences with adjective endings, e.g. *ein easy**es** Leben* ('an easy life'), *ein easy**eres** Leben* ('an easier life'), but due to confusion the ending is often dropped, e.g. *ein easy Leben* ('an easy life'). New adjectives are formed by adding the affixes *un-*, *unwichtig* ('unimportant'), *in-*, *intolerant*, *a-*, *anormal* ('abnormal'), *-isch*, *heidnisch* ('heathen'), *-lich*, *väterlich* ('fatherly'), *-al*, *klerikal* ('clerical'), *-är*, *familiär* ('familiar'), *-bar*, *machbar* ('doable'), *-abel*, *akzeptabel* ('acceptable'), *-ig*, *zulässig* ('allowable') and *-ativ*, *koordinativ* ('coordinating') (all examples taken from Russ, 1994 pg234).

Gender, on the other hand, can be quite problematic because English, unlike German, does not distinguish grammatical gender. Therefore, an anglicism must be assigned one of the three German genders. Yang (1990, pg 153) says that gender can be decided according to seven different criteria. These are:

1. 'lexical similarity'. This is where the anglicism directly takes the gender of the German concept for the English term. For example, *der Computer* because of *der Rechner*.

2. 'latent or hidden semantic analogy'. This category only involves German compounds. The last part of a compound in German always decides which gender the whole compound takes. But, sometimes because of semantic relations which are not obvious at first, a compound may take an unexpected gender. An example given by Yang is *die Holding(-company, -gesellschaft)*. As *gesellschaft* in *Holdinggesellschaft* is feminine and *-gesellschaft* is semantically related to *-company*, *Holdingcompany* also takes the feminine gender.

3. 'group analogy'. This is where words belonging to the same group all take the same gender. For example, *Blues*, *Boston*, *Foxtrott*, *Free Jazz*, *Jazz*, *New Wave*, *One-Step*, *Quickstep*, *Rock 'n' Roll* and *Swing* all take the masculine gender because *Tanz* ('dance') is also masculine (Yang, 1990 pg 154).

4. The 'natural gender' of a loan, plays a decisive role. This is best described with regard to people. If the person is male then the word simply takes the masculine gender in German, e.g *der Cowboy*.

5. *Zahl der Silben* or 'number of syllables'. Single syllable loans in German are nearly always masculine. Very rarely they take the feminine or neuter gender. For example, *Beat*, *Bob*, *Boom*, *Boß*, *Boy*, *Chip*, *Clan*, *Clown*, *Club*, *Coat*, *Colt*, *Cup*, *Deal*, *Drink*, *Fan*, *Fight*, *Flop*, *Freak* and many more all take the masculine gender. Exceptions include *Art*, *Band*, *Bar* and *Box*, which are all feminine and *Black*, *Byte*, *Match* and *Girl* are neuter (all examples from Yang, 1990 pg 155).

6. 'morphological analogy'. This is where the anglicism takes the gender of the derivational suffix. For example, in German, masculine nouns have the endings *-el*, *-en*, *-er*, *-ig*, *-ich*, *-ling*, feminine nouns have *-e*, *-ei*, *-ie*, *-heit*, *-keit*, *-schaft*, *-ik*, *-in*, *-ion*, *-tät*, *-ung*, *-ur* as endings, and neuter nouns take the endings *-tum*, *-ment*, *-ium*, *-nis*.

7. and lastly, anglicisms which are created from combining a verb and a particle are either masculine or neuter, e.g. *der Countdown* and *das Check-in* (Yang 1990, pg157).

When an English loan fulfils more than one of the conditions above, morphological analogy always takes higher precedence.

Plurals in English are usually formed by adding an *-s* or *-ies*. I have already mentioned that if an anglicism has a final *y* then it takes *-s* rather than *-ies*, e.g. *Babys*. Otherwise

German has several plural forms, but once gender has been assigned then the corresponding plural ending can also be derived. Examples of how the plural can be formed in German (taken from Yang, 1990 pg159) include: *der Tisch - die Tisch**e*** ('tables'), *der Dozent - die Dozent**en*** ('lecturers'), *der Apfel - die **Ä**pfel* ('apples'), *das Bild - die Bild**er*** ('pictures'), *der Bus - die Bus**se*** ('buses') and *die Oma - die Oma**s*** ('grandmothers').

6.4 Semantics

Anglicisms can either consist of words adapted from English which only have one meaning, e.g. (English) *beefsteak* → (German) *Beefsteak*, or can be anglicisms whose meaning is adapted from English source words which have more than one meaning Filipovic (1996). Filipovic describes three semantic processes, which occur after an anglicism which takes over one of several meanings, is integrated into a receiving language. These are

1. 'restriction of meaning in number', where an anglicism takes over one of several meanings, e.g. (English) *feeder* → (German) *Feeder*.

2. 'expansion of meaning in number', where an anglicism expands the number of its meanings after it has been integrated into the receiving language, e.g. (English) *hand* → (German) *Hands* (which takes on the additional meaning in soccer: breaking the rules), or

3. 'expansion of meaning in a semantic field', where the word acquires a new meaning which is different to its source word or the original anglicism, e.g. (English) *rib* → (German) *Rips* (additional meaning: a kind of cloth).

In the first category above, 'restriction of meaning in number', the example given, i.e. *feeder*, actually has six different meanings in English[4]: including a person or thing that feeds or is fed and a road, service, etc., that links secondary areas to the main traffic network.

The second example, *hand*, has twenty definitions in English[4], ranging from the most common meaning of 'the prehensile part of the body at the end of the arm consisting of a thumb, four fingers and a palm' to a cluster of bananas. But when borrowed into German as *Hands* it takes on the new meaning of 'breaking the rules' in the realm soccer. Thus, it is a valid 'expansion of meaning in a semantic field'.

[4]definitions from Collins English Dictionary & Thesaurus (2000)

For the third example, *rib* has twelve different meanings in English[4]. When *rib* is borrowed and integrated into German as *Rips* it acquires a new meaning - a type of cloth. This is totally different to any of the meanings it originally possessed in English, therefore it is a very good instance of an 'expansion of meaning in a semantic field'. Another example which I would like to include here is an unusual one given by Lehnert (1986, pg147). He says that *Baby Sitter* in the former German Democratic Republic acquired the additional meaning of being a 'children's lavatory lid' since about 1970.

Russ (1994) also provides a comprehensive discussion of the semantics and changes in meaning involved when an anglicism is integrated into German. He comments, that the difficulty involved with identifying what changes in meaning are currently taking place is due largely to the fact that

> "there are speakers who know the old meanings of the word and others who only know the new meaning."

He is justified in making this statement as it quite common for vocabulary to differ between the older and younger generations and also between speakers from different areas. He discusses how the meaning of a word can become narrowed or more restricted by referring to the word *City* as an example. In English, *city* means 'a large town', but in German it has come to mean 'city centre'. It is also interesting to note that, anglicisms in German may have a different connotation than the original connotation they have in English. Russ (1994, pg268) cites *clever* as an example of this, as he states that this adjective normally has a pejorative sense of being 'cunning' in German.

It is also interesting to observe, that if a particular meaning of a word which has a few different meanings needs to be specified, the same word may have a different gender to denote the different meanings. Viereck (1986, pg115) uses the word *Single* as an example of this particular phenomenon. He says that the older borrowings were *das Single* meaning a 'game with one person on each side' in tennis and *die Single* meaning a 'small record', but when the new meaning of 'an unmarried person' was introduced, it took the masculine gender, i.e. *der Single*. Otherwise, any ambiguity in meaning can be resolved by taking into consideration the context of how and where the word is used. In the next chapter, Chapter 7, the various uses of anglicisms are described.

Chapter 7

Use of Anglicisms

I now want to look at why anglicisms are used and who uses them. The main reason for borrowing an anglicism is when an object or concept that it represents from the English speaking world is also introduced and brought into the German speaking world. When Galinsky (1975, pg71) investigated borrowing from English into German he arrived at seven different motivations or stylistic functions for using anglicisms. These (cited in Yang, 1990 pg7 and Viereck, 1986 pg122) were:

- providing national American color of settings, actions and characters,
- establishing or enhancing precision,
- offering or facilitating intentional disguise,
- effecting brevity to the point of terseness,
- producing vividness, often by way of metaphor,
- conveying tone, its gamut ranging from humorous playfulness to sneering parody on America and 'Americanized' German, and
- creating or increasing variation of expression.

All of these are valid observations, but the first and sixth statements are of course only referring to American English. The second point above is particularly noteworthy as establishing precision is what *Sprachökonomie* or 'language economy' is all about. Yang (1990, pg123) defines this phenomenon as:

> "...das Bestreben, mit minimalem sprachlichem Aufwand maximale sprachliche Effektivität zu erreichen."

> ("...the attempt, with minimal linguistic cost to achieve maximal linguistic effectiveness.")

Lehnert (1986, pg136) differentiates between anglicisms, or 'Anglo-Americanisms' as he calls them, if they are polysyllabic, e.g. *die Antibabypille* ('anti-baby pill' or *pill*) or monosyllabic, e.g. *der Hit*. He is of the opinion that:

> "The short monosyllabic Anglo-American word is, as a rule, much handier, more convenient and impressive than the corresponding polysyllabic and clumsy German compound word."

As evidence to back this up he compares *der Boom* (from the English word *boom*) with its corresponding equivalent in German which is *Wirtschaftaufschwung*. He finds that the anglicism *Boom* is more economical as it saves time and effort when speaking and likewise saves space when writing or printing. There are many more examples as a lot many anglicisms that are borrowed are monosyllabic, e.g. *Band*, *Crew*, *Gag*, *Hit*, *Jet*, *Job*, *Lift*, *Look*, *Quiz*, *Set*, *Sex*, *Shop*, *Show*, *Trend*, etc. (Lehnert, 1986 pg136). Another benefit is that monosyllabic anglicisms are particularly suitable for forming German compounds, which creates even more new words (or neologisms) to add to the ever-increasing lexicon. Similarly, anglicisms are also economical as many of them are clippings or abbreviations of longer words, for example, *Demo* (*Demonstration*) and *Uni* (*Universität* -'university') (Yang, 1990 pg123).

Anglicisms and *Sprachökonomie* are two powerful linguistic features which are used in advertising, whether in newspapers, magazines or on radio, television and billboards. The main objective of advertising is to catch the attention of prospective customers to sell their product. Anglicisms do this as they tend to be short, compact and "snappy" and they emit their modernness, trendiness and affiliation to the English-speaking world or the cultures of America or Britain, which are perceived as being fashionable.

Russ (1994, pg249) also contributes some valid reasons for borrowing. Firstly:

> "...the motive for borrowing is the desire on the part of certain speakers to show that they know a certain language by lacing their own speech with borrowings. Foreign words have a greater prestige than native ones in certain areas."

Wells (1987, pg278) concurs:

> "Moreover, foreign words are a stylistic enrichment as well as convenient - the foreign word as a 'cultural token' carries with it exotic associations, of elegance perhaps, or refinement."

Lehnert (1986, pg145) elaborates that the occupation of *Entertainer* has more prestige than that of *Unterhalter* and that a *Schallplattenunterhalter* prefers to be called a *Diskjockei* or *Disk-jockey*, which is borrowed from English *disk-jockey* ('a broadcaster who introduces records or popular music on a radio or television show'). The first statement above is definitely true of the younger generation, teenagers in particular, as they associate a certain degree of "coolness" with using numerous anglicisms in their speech, or as Waterman (1966, pg178) aptly puts it:

> "Many young Germans, who glibly parrot a great deal of the jargon of the American entertainment world, use the "lingo" in a way that reveals their uncertainty as to what it actually means."

This quote reinforces the view that young Germans use anglicisms to be trendy and even when they don't understand them they still continue to use them. Secondly, Russ (1990, pg249) states that:

> "When crazes start in the English-speaking world and spread to other countries the English designation usually spreads as well, for example *Skateboarding*, *Aquaplaning*, *Aerobics*."

It is also the younger generation that are more prone to the influence of the various crazes started in the English-speaking world. The areas of sport and music, often through the medium of television or the Internet, are particularly influential. Russ (1994, pg254) cites *Beatband*, *Rockmusik*, *Popmusik*, *die LP*, *die Single*, *die CD*, *Slide-Gitarre* and *Intsrumental-Vokal-Arrangements* from the language of pop and rock music and *Doping*, *fair*, *Foul*, *kicken*, *Trainer*, *Fan*, *Champion*, *Team* and *Looping* from the language of sport. Other categories and their respective examples provided by Russ (1994, pg 259) are:

- **political and public life:** *Appeasement*, *Disengagement*, *Hearing*, *Image*;
- **business and commerce:** *Boom*, *Clearing*, *Designer*, *Dumping*, *Leasing*, *Marketing*, *Safe*, *Trust*;
- **technology and science:** *Computer*, *Fading*, *Laser*, *Mikroprozessor*, *Test*;
- **fashion and clothes:** *Deodorant*, *Jumper*, *Look*, *Lotion*, *Make-up*, *Nylon*, *Pullover*, *Slip*, *Spray*, *Tweed*;

- **food and drinks:** *Chips*, *Longdrink*, *Shortdrink*, *Cocktail*, *Grapefruit*, *mixen*, *Sherry*, *Toast*, *Soft-Eis*;
- **entertainment and leisure:** *Bar*, *Comics*, *Festival*, *Gag*, *Happening*, *Party*, *Quiz*, *Show*, *Western*.

This emphasises the fact that anglicisms are present in great numbers in practically every aspect of German life and culture. Many Germans including the younger generation are often uncertain about the meaning of anglicisms and in what context they should be used. After the younger generation, it is mainly educated speakers such as politicians or academics who use anglicisms the most in their everyday speech. Not only do they need to be well educated, but they also need to have a good knowledge of the English langauge to be able to articulate competently in the area of politics, economics and other specialist topics. The language of specialist topics or specialist terminology (*Sondersprachen*) is the area where the greatest amount of borrowing from English terminology takes place. Russ (1994, pg41) differentiates between two types of *Sondersprachen* - (1)*Gruppensprachen* ('group languages'), which are spoken by the same group of people whether due to mutual professions or other reasons, and (2)*Fachsprachen* are 'technical languages' which I will deal specifically with in the next section.

7.1 Fachsprache

A *Fachsprache* or 'technical language' is the terminology required for particular subject areas such as technology, engineering, electronics, physics, chemistry, biology, medicine, pharmacology and many more. The main purpose of a *Fachsprache* is to be descriptive by providing accurate definitions for objects, processes and concepts that are fundamental to the subject area concerned. Russ (1994, pg43) distinguishes between three different levels of *Fachsprache*:

1. the highest level, where theoretical issues are discussed by experts in the field,
2. the workshop level, where issues are discussed between the experts and product technicians, and lastly,
3. the level of the consumer, where the general public comes into contact with the technical product or service.

Although different *Fachsprachen* have different vocabulary, they still retain the syntax of standard everyday German, but they do show preference for certain linguistic features such as nominalizations, i.e. the formation of new nouns from verbs or adjectives,

and compounds, i.e the formation of new nouns by combining more than one noun in sequence. Russ (1994, pg44) says that some of the more common features include: (1) simple sentences with only one verb, which contain nominalizations, (2) the use of impersonal or passive constructions, where the passive focuses on the topic and (3) verbs usually occur in the 3rd person singular or plural. Nominalizations from verbs are formed in German by adding the suffix *-ung* or by simply using the infinitive. Normally the *-ung* suffix denotes a process, e.g. *Kühlung* meaning 'cooling'/'refrigeration' or the object, e.g. *Zeichnung* meaning 'drawing' (Russ, 1994 pg237).

One *Fachsprache* in particular has been heavily influenced by English and has borrowed extensively from English terminology.: the *Fachsprache* of technology and in particular computer terminology. The invention and development of the computer during the 20th century was a revolutionary development in the English speaking world. Therefore, it was necessary to borrow quite a substantial amount of words for German vocabulary to incorporate this new phenomenon. Yang (1990) carried out an investigation on anglicisms present in "*Der Spiegel*" magazine, which is the equivalent of "Time" magazine in America. His findings reflect how the number of anglicisms in the area of technology has increased over the years since the invention of the first computer.

Word	**1950**	**1960**	**1970**	**1980**	**Total**
Computer	0	0	99	221	320

In 1950 and 1960, no occurrence of the borrowing *Computer* appeared in "*Der Spiegel*". By 1970 it occurred 99 times and further increased in 1980 to appear 221 times. So, in the four years investigated, the total number of times that it occurred was 320 altogether. This was the second highest anglicism recorded overall. Only *Partner* was higher at 323, with only an overall difference of a mere three occurrences.

Kaltz (1988, cited in Yeandle 2001 pg335) compares the level of anglicisms in German and French computing terminology and concluded that German had considerably more anglicisms than French. Zimmer (1999, cited in Yeandle 2001 pg335) conducted an analysis of 100 computing terms to establish what percentage was 'native' terminology, for example, using *logiciel* instead of *software* in French and *Laufwerk* instead of *Diskdrive* in German. He reported that German had one of the lowest rates of 'native' terminology with just 57%, compared to 86% in French and 80% in Spanish. The most recent investigation into the borrowing of anglicisms in German computing terminology was carried out by Yeandle (2001). His corpus consisted of 9,915 words and only included anglicisms

which were specific to IT. He differentiated between types and tokens. For example, the word *Computer* is counted as one type, and the number of time that it occurs altogether is its number of tokens. Yeandle (2001) found 1,397 types and 3,395 tokens, which corresponds to 21.89% and 14.09% respectively. These percentages highlight the strong influence of anglicisms or Anglo-American borrowings in German computing terminology. Regarding the various parts of speech, he found that nouns were the most frequent, as they always accounted for more than 90% of the words, which was to be expected. The other parts of speech in which anglicisms were evident to any extent were verbs and adjectives. From the table below, it can be seen that adjectives just outnumber verbs in terms of types and in terms of tokens the opposite is true, i.e. verbs outnumber the adjectives.

	Types	**Tokens**
Nouns:	96.35%	92.16%
Verbs:	1.76%	4.59%
Adjectives:	1.86%	3.03%

For his analysis, Yeandle (2001) applies the traditional terminology of Betz's classification. His findings for the different types of borrowing are as follows:

Type of Borrowing	**Percentage**
loan translations:	39.71%
loan words:	26.52%
loan meanings:	14.4%
newly created hybrid compounds:	8.88%
initialisms:	5.11%
loan renditions:	3.9%
loan formations:	0.94%
loan creations:	0.54%
pseudo loans:	0%

The category for *newly created hybrid compounds* is derived from Carstensen (1979), who included a category for *hybrid compounds* which he classified under *evidente Einflüsse* Yeandle (2001, pg 353). For the *initialisms* category, Yeandle (2001) uses this as a generic category for all abbreviations[5] and acronyms[6]. More specifically, the 5.11% is made up of

[5]an abbreviation is where each letter of a sequence of letters are pronounced individually, e.g USA

[6]an acronym is where a sequence of letters is pronounced as a whole word, e.g NATO

4.17% *loan abbreviations*, 0.54% *loan acronyms* and 0.40% *loan abbreviation/acronyms*. Each category utilized by Yeandle was further divided into detailed subcategories. Thus, Yeandle has provided a definitive and invaluable analysis of German computing terminology. The analysis of my corpus will look at the situation today, but first I am going to give an account of the attitudes of German speakers towards the influence of English on German and an outline of the various language societies in the next chapter.

Chapter 8

Attitudes Towards Anglicisms & Language Societies

Many native speakers of German have become concerned by the apparent increase of *Fremdwörter* (foreign words) or *Lehnwörter* (loan words) in their language. The association many people feel between the German language and the German national identity is a primary reason for this concern. After the establishment of the United German Empire in 1871, strong nationalistic feelings, resulted in several attempts to stop the influx of Anglicisms into German, usually by creating suitable German equivalents, called *Ersatzwörter*. Many societies organised to address the situation. These societies included the *Allgemeiner Deutscher Sprachverein* ("General German Language Society"), which was set up in 1885 by Hermann Riegel (1834-1990) (Russ, 1994 pg 251). This was probably the most well-known society due to their extreme purist, view and contempt of anglicisms. At the inauguration of the *Allgemeiner Deutscher Sprachverein*, Heinrich von Stephan (1831-1897), who was the Postmaster General at the time, called for:

> "Kein Fremdwort für das, was deutsch gut ausgedrückt werden kann"
>
> ('no foreign word for that, which German can express well')

and exhorted the society's members to

> "Gedenke auch, wenn du die deutsche Sprache sprichst, daß du ein Deutscher bist"
>
> ('Remember also, that when you speak the German language, that you are German') (von Polenz, 1999 pg271)

Heinrich von Stephan is credited with revolutionising the postal system in Germany. This overhaul included exchanging 760 foreign words for official postal and transport terms with German equivalents, for example, *Eilbrief* for *Expressbrief* (Russ, 1994 pg251). The *Allgemeiner Deutscher Sprachverein* has published its own periodical, called *Muttersprache* since 1925, which is concerned with all aspects of the German language.

The *Bund für deutsche Schrift und Sprache* [7] (1918) is another such society, whose members state that:

> "Wir treten für die Pflege und Förderung der deutschen Druck- und Schreibschriften sowie für den Schutz der deutschen Sprache ein."
>
> ('We stand up for the care and promotion of the German printed- and handwritten writing as well as the protection of the German language')[7]

Surprisingly, during the Nazi period, Hitler forbade the *Fremdwortjagd* or 'witch-hunt' of foreign words, which may be attributed to the fact that Nazi propaganda used many foreign words. After 1945 the situation alleviated slightly and attitudes towards anglicisms became more moderate. The *Gesellschaft für deutsche Sprache* ("German Language Society") [8] was set up in 1947. Their aim is to:

> "... Pflege und Erforschung der deutschen Sprache."
>
> ('... care for and investigate the German language.') [8]

and their objectives are:

> "... in der Öffentlichkeit das Bewusstsein für die deutsche Sprache zu vertiefen und ihre Funktion im globalen Rahmen sichtbar zu machen."
>
> ('to deepen awareness of the German language in public and to make its function visible in a global framework.')[8]

and

[7] http://www.bfds.de/
[8] http://www.gfds.de/

> "... die Sprachentwicklung kritisch zu beobachten und auf der Grundlage wissenschaftlicher Forschung Empfehlungen für den allgemeinen Sprachgebrauch zu geben."
>
> ('... to critically observe language development and on the basis of scientific research give suggestions for general language use.') [8]

They also believe that:

> "Eine Sprache entwickelt und verändert sich im Laufe der Zeit."
>
> ('A language develops and changes in the course of time.')[8]

Recently there has been renewed controversy over the influence of English on German. The formation of the *Verein für deutsche Sprache* ("Association for the German Language") [9] in 1997 coincided with renewed puristic criticism of anglicisms. The society had originally been called the *Verein zur Wahrung der deutschen Sprache* ("Association for the Preservation of the German Language"), but changed its name to the more neutral version after receiving negative publicity in the press (Hohenhaus, 2001 pg 161).

Members of the *Verein für deutsche Sprache* state:

> "Wir wollen der Anglisierung der deutschen Sprache entgegentreten und die Menschen in Deutschland an den Wert und die Schönheit ihrer Muttersprache erinnern."
>
> ("We want to counter the anglicisation of the German language and remind people in Germany of the value and beauty of their native language.")[9]

President of the *Verein für deutsche Sprache*, Walter Kramer, a professor of statistics at the University of Dortmund, has received a lot of publicity for his outspoken opinions and wants to see an end to the:

> "exaggerated use of Anglicisms and Americanisms in cases where there are perfectly good German equivalents." (Sautter, 1998).

[9] http://www.vds-ev.de/

Other members refer to anglicisms as "*Sprachkrankheiten*" or 'language diseases', and the society confers its "Linguistic Adulterator Award", monthly to the "*Sprachhunzer des Monats*" and also yearly to the "*Sprachpanscher des Jahres*". Winners of this not so prestigious award usually include companies or public figures who are considered guilty of overusing anglicisms. For example, the well known clothing company C&A no longer call their clothing range for children returning to school, the "Back to School" range, but instead have the appropriate equivalent German slogan for their advertising campaigns in all German-speaking countries (Sautter, 1998).

Walter Kramer believes that one of the reasons for the excessive use of anglicisms by native German speakers is "the spinelessness and inferiority complex" concerning "everything which is German." Stickel (1984: 43-7) offers further explanations, which range from "laziness of thinking", "besmirching the language", "kow-towing to the Americans", "separating groups in society" to "endangering national identity". However, Kramer is considered an amateur and is not well thought of by experts in the field and the the respondents of Stickel's investigation were lay people and not academics. Their views and comments are certainly exaggerated. Others like Rudolf Hoberg from the *Gesellschaft für deutsche Sprache*, who believe that:

> "It is true that the number of Anglo-Saxon words in German has increased in all areas, but why should that do any harm? It's a natural process and happens to all other languages as well." (Sautter, 1998).

A second factor, contributing factor to the current wave of paranoia regarding anglicisms is *Denglish*. *Denglish* (or its germanised version *Denglisch*), is a relatively new popular term that refers to a 'language' which is a mixture of ***D**eutsch* and **English**, or German-English. The term *Denglish* has grown in popularity as it receives more and more publicity. In fact, there is a whole section of the *Verein für deutsche Sprache*[9] webpage entirely dedicated to this controversial topic. In fact, the debate over anglicisms has become so heated that it has been raised in the political arena. Things came to a head on the 29th of January, 2001, when the Berlin senator for the interior (*Innensenator*), Eckhard Werthebach, called for legislation to protect the German language (*Sprachschutzgesetzt*) (Hohenhaus, 2001a pg165). Hohenhaus concludes that the idea of an language law accomplished making the general public more aware of the situation, but that the situation is not dire enough to justify the requirement of an actual language law.

Some people even suggest that German is degenerating into a pidgin. The main culprit responsible for this is another dilettante, Dieter E. Zimmer, who published his contro-

versial article "*Neuanglodeutsch - über die Pidginisierung der Sprache*" ('New Anglo German - the pidginisation of the language') in 1997. Both Hohenhaus (2001 and 2001a) and Barbour (2001) both violently disagreed with Zimmer's conclusions and successfully defend the German language arguing that it is not becoming a pidgin, or going to be the next victim of a language death, or being entirely replaced by English. Hohenhaus (2001a, pg 175) concludes that:

1. "The changes in German under the influence of English are nowhere near as dramatic as claimed by the critics of the current 'flood' of anglicisms. Despite some lexical changes, German is still German; the grammatical system, in particular is intact and under no threat."

2. "No matter how fashionable the use of (elements of) English may currently be in some walks of life, such as IT or marketing, English is far from having assumed the status of everyday language in normal conversation for Germans; no 'catastrophic' language shift is in sight. As long as that continues to be the case (and I am still confidently optimistic about that) German is under no serious threat of being pushed out by English"

Likewise, when contemplating that:

> "Zimmer seems even to imply in places that English words could entirely replace German words, and that the German could simply change into English."

Barbour (2001) states:

> "this is a linguistically highly uninformed position"

Unlike Zimmer, he does not think that English is posing a major threat to German. In fact, he says:

> "If German is not dying, not changing into English, and not becoming a pidgin, what is happening to it? In my view it is simply borrowing a large number of loan words."

These statements by Hohenhaus (2001) and Barbour (2001) are clear and calm, and incorporate a great degree of truth. Personally, I would agree with Barbour's last assertion that the German language is not at risk and it is only borrowing a large number of words. Nonetheless, my survey will investigate the present-day opinion of native German speakers regarding anglicisms in German, with special emphasis on my subject area, computing terminology.

Chapter 9

Analysis of Corpus

To investigate the current situation concerning anglicisms in German computer terminology, I decided to conduct an analysis of an appropriate corpus. To compile this corpus, I located six different German computing magazines and identified a suitable text from each one. The texts for the corpus consisted of two short articles in their entirety, and sections from longer articles for both the two medium and two lengthier texts. The articles were taken from six different magazines to ensure that an unbiased corpus was obtained, since a given term, either an anglicism or its German equivalent tends to be used consistently throughout the rest of a magazine, due to the editors's influence. Secondly, articles of different length were chosen because shorter articles do not usually possess the same range of vocabulary found in longer articles, i.e there will be a greater number of types and their corresponding tokens present in longer articles. I further subdivided the articles by topic: three articles, one of each small, medium and large, were related to hardware and the other three remaining articles covered topics related to software. This division was to ensure that the vocabulary of the corpus contained terminology that was both technical and not so technical and that it was derived from all areas of Information Technology (IT). Articles on hardware always incorporate very technical language, or *Fachsprache*, because they discuss the inner workings of a computer and are therefore aimed at people with a good knowledge of computer science, such as technicians, engineers, or computer programmers. On the other hand, articles on software tend to be less technical; as they are usually explanatory texts about e-mail and the Internet, reviews of new software programs or articles on how to use a new piece of software, and are more geared towards members of the general public who have a minimum knowledge of computers, but who need a basic grasp of technology due to the ever increasing presence of computers in society.

In total, the corpus amounted to 5167 tokens altogether. To carry out the analysis I first

identified words of foreign influence and then identified the anglicisms, which amounted to 1457 tokens altogether. The next step was to eliminate words of foreign influence because in this investigation I was only interested in the influence of English, as well as those anglicisms which are not frequently used or have particular significance in the area of computer terminology. A list of the eliminated words are given in Appendix C. For instance, although the word *Risiko* looks very similar to *risk* in English, it is actually borrowed from Italian, as mentioned in a previous chapter, therefore it is excluded. Words which were originally borrowed from Latin are also excluded. Many of these words look very similar to their English counterparts, but this similarity due to the fact that the English language also borrowed substantially from Latin. For example, *pessimistisch* ('pessimistic'), originally from Latin[10], *präzise* ('precise') borrowed into German from Latin through French in the 17th century[10] and *Preis* ('price'), which was borrowed from Latin originally, but also influenced by French during 16th century[10], are all examples of excluded words. Other words which were excluded, include so-called "internationalisms", i.e. words which are internationally recognised in many languages, such as, *Foto* ('photo'), *Kilogramm* ('kilogramme') and *Problem* ('problem'). For the most part, determining which anglicisms are only used generally in German and are unrelated to the area of computing was quite straightforward. Examples of these include *Alternative*, *Aspekt*, *Diskussion*, *Flop*, *ideal*, *Komfort*, *Partner*, and *Plus*, all of which were eliminated.

There were of course some borderline cases, which I retained for analysis, but one could also argue their validity of excluding them. A word which fits this description is *Dokument*. It is widely used in German and on initial consideration it has no specific significance in the area of computer science. Yet, after consulting the various dictionaries and lexicons for German/English computing terminology, including those compiled by Irlbeck (1992), Schulze (2002) and Glass (2002), I discovered that *Dokument* was considered as a valid entry for computing and as a result this was sufficient justification for including it in my analysis. These dictionaries and lexicons were an invaluable source for deciding which anglicisms were to be included or excluded from the analysis. Another possible controversial example is *extern*. Although this word was originally borrowed from French,[10] it has also been included in the analysis because it is frequently used in German computing terminology under the influence of English. Its English counterpart, *external*, is widely used in English computing terminology and as a result *extern* is also frequently used in German computing terminology. For instance, there are 27 entries for *extern* given in the dictionary of Computer English compiled by Glass (2002), some of

[10]All etymological information taken from Kluge (1967)

which include:

German	English
externe Datenbank	external database
externe Kommunikation	external communication
externe Operation	external operation
externer Bus	external bus
externer Rechner	external computer

Therefore, we are justified in retaining it as part of the corpus to be examined. This example highlights an important point: although a word may not be immediately recognised as an anglicism, further investigation may reveal that it is in fact a borrowing or usage under English influence, and this is in fact the case with many terms found in German computer terminology.

The total number of words eliminated[11] were to 58 types and 84 tokens, which brings the overall total of tokens to be included in my analysis down to 1373, which means that there was a very substantial 26.57% of anglicisms present, which represents over a quarter of the corpus. An important part of the analysis was differentiating between the various types and tokens. For example, the word *Computer* is counted as one type, but it occurred 27 times on its own and a further thirteen times as part of a compound, therefore *Computer* is counted as having 30 tokens in total throughout the corpus. 700 types altogether were identified and recorded.

The next stage in the process was to classify the compounds into their individual constituents. For instance, a hyphenated compound such as *Computer-Programm* is counted as one type. But the two constituent parts, *Computer* and *Programm*, are also valid types in their own right. Therefore, when counting occurrences of the various types, *Computer-Programm* is assigned one token and in addition, both of the types *Computer* and *Programm* also receive one token each. In other cases, a compound may only have one constituent which is a valid type and consequently only this constituent is included and the other is disregarded. The part of a compound that is disregarded, may be deemed an invalid type for two reasons: either it is a native German word, or it is an anglicism which has no relevance to the area of computer science. A good example is *Freischaltcode* because *Freischalt* is disregarded, but *code* is included and counted as a token of the type *Code*, which is discussed more fully below. Another example is

[11] A list of the eliminated words are located in Appendix C

Desktop-Replacement where only *Desktop* is included, but *Replacement* is excluded. A list of compounds and how they were divided into their respective constituents can be found in Appendix D and new types which were derived from the compounds are listed in Appendix E. When I refer to "new type" here, I actually mean a type which was previously unrecorded during the investigation, as it did not appear as an individual word in the corpus and only after examining the compounds into their various constituents was it identified as a type. An example of a previously unrecorded type is *RAM* ('Random Access Memory'). The reason why *RAM* is considered a new type is because although it can occur on its own, in this corpus it only ever occurred as part of a compound. The entry given for this particular type as given in Appendix D is as follows:

RAM [2] → 256 MByte RAM [1], DDR-RAM-Support [1].

This indicates that the type, i.e. *RAM*, occurs to the left of the arrow followed by its number of tokens, i.e. the number of times that it occurs in the corpus, contained in the set of square brackets. To the right of arrow, all compounds which contain the type *RAM* are listed with their respective tokens in square brackets. Examination of the compounds revealed a total of 790 tokens, including 272 tokens belonging to 117 newly discovered types. Once the new types and their corresponding tokens were added to the overall totals, this increased the number of types to 817 and the number of tokens to 1645. Therefore, the percentage of anglicisms relating to IT found in the corpus is an impressive 15.81% for types, but this increases to a whopping 31.84% for tokens, which is more than double the number of anglicisms for types.

After distinguishing the final totals of anglicisms contained in the corpus, the number of nouns, verbs and adjectives were calculated so they could be compared to those of Yeandle (2001). Inspection of the types revealed that there were 746 nouns, 41 adjectives and 30 verbs. On the other hand, tokens were divided into 1500 nouns, 79 adjectives and 66 verbs. The respective percentages of these totals are given in the table below:

	Types	**Tokens**
Nouns:	91.31%	91.19%
Adjectives:	5.02%	4.80%
Verbs:	3.67%	4.01%

Nouns represent the largest category, which was to be expected because this is a commonly held view among academics in the field of linguistics and it was also confirmed by

the values reported by Yeandle (2001). The nouns were followed by adjectives and then verbs. Types had slightly higher percentages for nouns and adjectives than the tokens, but verbs were slightly greater for tokens than types. These values compare very well to those of Yeandle (2001), whose values given in Chapter 7 are repeated in the table below:

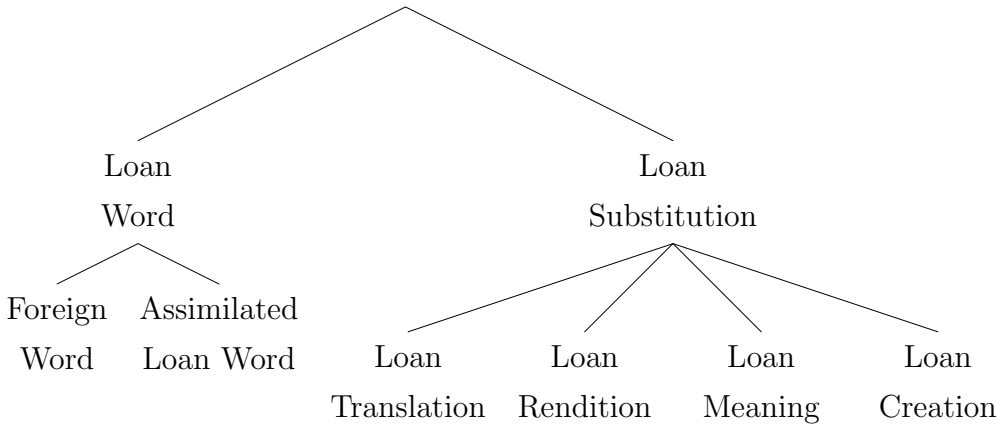
	Types	**Tokens**
Nouns:	96.35%	92.16%
Adjectives:	1.86%	3.03%
Verbs:	1.76%	4.59%

Finally, the last stage of the analysis required the anglicisms to be classified according to the system for borrowing established by Betz. A full description of the classification is given in the subsequent chapter.

Chapter 10

Corpus: Categories of Borrowing

In this chapter I categorise all the words which I identified as anglicisms in the corpus. Recall that out of a total of 5167 words, there were 817 types and 1645 tokens of anglicisms. These were categorised using Betz's classification of borrowing, that was discussed more fully in Chapter 4 earlier, but which is illustrated in the simplified diagram below:



An overview of the various categories and their respective totals for types and token that were found in the corpus are given in the table below:

	Types	**Tokens**
Foreign Words:	206	551
Assimilated Loan words:	230	479
Loan Translations:	268	371
Loan Renditions:	14	27
Loan Meanings:	89	201
Loan Creations:	10	16
Totals:	817	1645

These values once converted into their respective percentages and ranked in order according to types, are as follows:

	Types	**Tokens**
Loan Translations:	32.80%	22.55%
Assimilated Loan words:	28.15%	29.12%
Foreign Words:	25.22%	33.5%
Loan Meanings:	10.90%	12.22%
Loan Renditions:	1.71%	1.64%
Loan Creations:	1.22%	0.97%

Loan Translations were the largest category, which corresponds to the findings of Yeandle (2001). For the purpose of comparison Yeandle's findings already given in Chapter 7 are repeated here, but with categories eliminated that do not occurr in the system of classification put forward by Betz (1963), i.e. newly created hybrid compounds, initialisms and pseudo loans, are eliminated:

Type of Borrowing	**Percentage**
loan translations:	39.71%
loan words:	26.52%
loan meanings:	14.4%
loan renditions:	3.9%
loan formations:	0.94%
loan creations:	0.54%

Yeandle (2001) did not differentiate between Foreign Words and assimilated Loan Words. Instead he just used the generic category of Loan Words and if I had done the same, Loan Words, that is Foreign Words plus assimilated Loan words, would have come to 53.37% altogether, which would have outnumbered the Loan Translations. However, after Loan Translations, the assimilated Loan Words were next, followed by Foreign Words, Loan Meanings, Loan Renditions and lastly Loan Creations. In the case of tokens, Foreign Words were the largest category, followed by assimilated Loan words, Loan Translations, Loan Meanings, Loan Renditions and lastly, Loan Creations.

Now to elaborate on each category in turn. A borrowing can either be a Loan Word or a Loan Substitution. In turn, Loan Words can either be Foreign Words or assimilated Loan

Words. From the corpus, 206 types and 551 tokens were categorised as Foreign Words or *Fremdwörter*. Many of the words in this category were the names of various computer companies such as *AMD*, *Asus*, *Canon*, *Compaq*, *IBM*, *Intel*, *Linux*, *Microsoft*, *Sony* and *Toshiba*, or product names such as *Applemac*, *Blindwrite Suite*, *Body Bias*, *Deep Sleep*, *Lite-On*, *Opera*, *Playstation* or *Thinkpad*. It could be queried here, if it is really fair to include company and product name, but practically all of these are widely recognised and used in German computing terminology. Other words which fell into this category were so-called 'pure' anglicisms, that is those words which had no change in their orthography, phonology, or morphology. Examples of these include *Adapter*, *Backup*, *Buffer*, *Home*, *Images*, *Mousestick*, *Profile*, *Scan* and *Tag*. One might argue that some of these words are pronounced differently in German, but I felt that the difference in phonology is only minimal and not obvious to German speakers, but any words which did differ greatly were included in the category for assimilated Loan Words. Abbreviations such as *OK* and acronyms including *LAN*, *RAM* and *ROM* were also present in this category.

There were 230 types and 479 tokens of assimilated Loan Words. All words in this category have been integrated orthographically, phonologically and/or morphologically. Instances include *Aktion* ('action'), *Funktionen* ('functions'), *Kopie* ('copy'), *Menü* ('menu'), *Netzwerk* ('network') and *Variante* ('variant'). Many of the words in this category look exactly the same as their English counterparts, yet are pronounced very differently, for example, *Administrator*, *Generation*, and *Installation*. This can often lead to frustration for second language learners of German who have previous knowledge of English or are native English speakers. There are also a significant number of abbreviations, including *CD*, *CD-ROM*, *CPU*, *DDR*, *USB* and *XP*, present in this category. Their respective pronunciations are: /tseːˈdeː/, /ˈtseːdeːˈ|rɔm/, /ˈtseːpeːˈ|uː/, /deːdeːˈ|ɛr/, /uː|ɛsˈ|bː/ and /ˈiksː|peː/[12] in German. Many product names are also classified as assimilated Loan Words because many of the names of products contain numbers (*P4M-Notebook*, *Pentium 4*, *Playstation 3*, *Thinkpad R31* and *Windows 95 und 98*) and numbers are always pronounced as in German.

Loan Translations also represented one of the larger categories, as there were 268 types and 371 tokens. Loan Translations are words that were created in English for various computing terms and were simply translated into German when the technological concepts that these words represented were needed in the German-speaking countries. Examples include *Antiviren-Software* ('antivirus software'), *Breitband-Kommunikation* ('broad band communication'), *Datenkomprimierungs-Progamm* ('data compression pro-

[12]Collins English Dictionary

gram'), *Internet-Verbindung* ('Internet connection'), *Sicherheitsprüfung* ('security check'), and many more, all of which can be found in section 14.6.3 in Appendix F. This increase in the vocabulary of German computing terminology, which spread due to the invention of computing in the English-speaking world, is also reflected in the ever increasing number of *Fachsprache* dictionaries, some of which are listed in the bibliography.

The next category, Loan Renditions, with only fourteen types and 27 tokens, was the second least common form of borrowing in the corpus. Loan Renditions are borrowed words that are only a partially literal translations of the source words. For instance, *Datenbank*, *Hauptspeicher*, *Kontext-Menü*, and *Menüpunkt* are all examples of Loan Renditions. Literally, they translate as 'data bank', 'main storage', 'context menu' and 'menu point' respectively, but they actually mean *database*, *main memory*, *object menu* and *menu level*, which are their English equivalents.

Loan Meanings were more evident in the corpus, and included 89 types and 201 tokens. Identifying some words as Loan Meanings was relevantly easy: for instance, *laufen* has the everyday meaning 'to run' and it falls into the loan Meaning category because in the scope of computer science, it takes on the additional meaning of 'to run' (a program), which is very similar to its original meaning. Others, may not be so simple to identify especially when the person concerned is only aware of the older meaning. Further examples of Loan Meanings include: *Antwort* ('answer') → 'response' (from a program), *entpacken* ('to unpack') → 'to unzip' (a program), *Ordner* ('folder') → 'folder' (on a computer) and *Speicher* ('storage') → (computer) 'memory'.

The final category introduced by Betz is Loan Creations. This was the smallest category with only 10 types and 16 tokens in total. The Loan Creations found include *Bildpunkten*, which literally translates as 'image points', but which was created in German to be the equivalent of *pixels* in English, and *Speicherplatz* which literally means 'storage place', but is actually the *memory space* of a computer. Another more difficult case was *Freischaltcode*, whose actual definition was not listed in any dictionary. But, the verb *freischalten* means *to activate* or *unlock*, and the word *das Freischalten* means *clearing*, so literally *Freischaltcode* is 'clearing code', but it is actually the equivalent to a *self service password* in English. I derived this meaning for *Freischaltcode* by running a search on *http://www.google.de* and checking all the occurrences on German webpages. Without having background knowledge of German and the subject area concerned, in this case Information Technology, loan creations can be difficult to identify and frequently elusive. For example, the word *Stellfläche* ('footprint') may have been left undetected

as a Loan Creation. In actual fact *Stellfläche* only appears in German when used in the field of computing terminology and it is therefore a specific loan creation of computing terminology. *footprint* in English means 'The amount of floor or desk space required by a device. For example, a small-footprint computer is a computer whose dimensions (width and depth) are relatively small.'[13]. The constituent part *Stell* is from *die Stellen* ('locations') and *Fläche* means 'surface', resulting in 'location surface'. Clearly *Stellfläche* was created as the equivalent of *footprint* in English and is therefore included in this category.

Two categories which are not part of Betz's classification did appear in the corpus. There was one occurrence of the Pseudo Loan *Profis*. Being only one type and one token it would have been completely insignificant in a category on its own. For this reason, and to adhere to the system laid out by Betz, I classified *Profis* as an assimilated Loan Word as I simply took it to be an abbreviation of *professionals* in English. The second category which could have conceivably been represented was Loan Phrases. For example, the phrase *Supercomputer on a Chip* and *Yet Another Port Scanner* appeared in the corpus, but I deemed them invalid as a separate category for Loan Phrases and simply classified their individual parts which were relevant borrowings in the field of computer science, i.e. *Supercomputer*, *Chip*, and *Port Scanner*.

The analysis of the corpus has shown how difficult and, at times, controversial, the classification of borrowings into different categories can be. I have tried to suitably classify all borrowings where possible and have also found the same results as Yeandle (2001), which shows that his findings are robust and still very much applicable today. But there will always be a few cases where, whether a word should truly be included in one category and not another, or if a word is a valid borrowing at all will be open to question. In the next chapter I will describe the online survey, which aims to explore the opinions of native German speakers towards anglicisms in German computing terminology today.

[13]Definition as given at http://www.webopedia.com

Chapter 11

Online Survey

I conducted an online survey[14] to investigate current public opinion regarding anglicisms in German, and particularly in the area of computer terminology. I carried out the necessary background research on surveys: how do conduct them, phrase survey questions, incorporate attitude ranges and how to analyse the results (Berger 2000). Once I had established what questions I wanted to ask and had translated them into German, I got a native German speaker to proofread the survey and make any adjustments. The survey was then converted to a HTML document and hosted as a webpage on the Internet. Respondents were asked to visit the webpage I had designed, where they read a short section taken from an article in a German computing magazine, and then answered eight questions. The article was "*Tools, die Microsoft versteckt*" ('Tools, which Microsoft hide') taken from the September 2002 issue of *PCgo!*, and the section which I used for the survey was an explanation of how to conduct a security check with Windows XP. General questions at the start of the survey asked for the respondent's age, gender, and what was their native (first) language, as I only wanted to include native speakers of German. This turned out to be a necessary verification as I had to exclude responses from people, who although they had a very good command of the German language, were actually native speakers of Portuguese and Estonian. Additionally, I wanted to know their level of formal education in the English language and so asked whether they had studied English until the *Abitur*, which is the equivalent of the Leaving Certificate Examination in Ireland, or if they also studied English at college. Lastly, I enquired what their personal opinion was regarding their level of English; did they think their knowledge of English was poor, mediocre, good, or very good. Questions 1 to 7 refer specifically to their reading of the article. Question 1 asked how many anglicisms were in the article; very few, few, enough, many or too many.

[14]Full transcript of online survey can be found in Appendix G

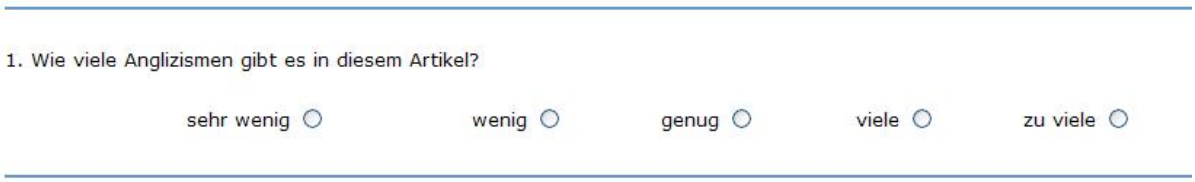


Figure 11.1: Online Survey Q1

Question 2 took five words from the text, *Homepage*, *Installation*, *aktivieren*, *Sicherheitscheck* and *Sicherheitsüberprüfung* and asked whether in the respondent's opinion, the individual words were anglicisms or not; commentary boxes were provided for respondents to explain their answer. Question 3 enquired whether the presence of anglicisms in the text made their overall understanding of the article easier or not.

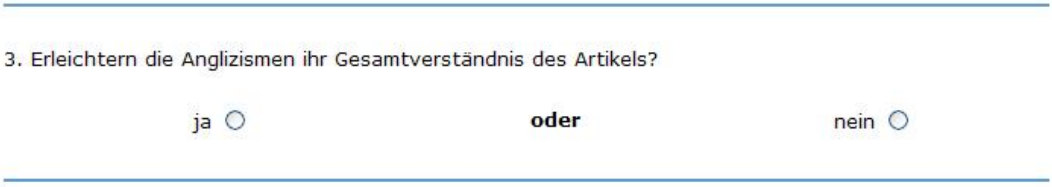


Figure 11.2: Online Survey Q3

Question 4 asked if there were words in the text which the respondents did not understand and if so, which ones and why. Question 5 was a comparative question to find out which word respondents used the most frequently from a given pair of words, i.e. the anglicism or the equivalent German word. The word pairs given were *Rechner/Computer*, *Bildschirm/Monitor*, *Tastatur/Keyboard*, *Verknüpfung/Link*, *Werkzeug/Tool*, *hinaufladen/uploaden*, *herunterladen/downloaden*, and lastly, *verbinden/konnektieren*. Question 6 queries if the respondent's understanding of the text would have been different if the words which had appeared as anglicisms had been written as their German equivalents instead; would their understanding be worse, the same or better. Question 7 consists of two parts. 7a asks how do the respondents find words which are half-English half-German in comparison with words which are constructed only from German; very difficult, difficult, the same, easy, or very easy. On the other hand, 7b asks how they find words, which are half-English half-German in comparison to words which are constructed only from English: very difficult, difficult, the same, easy, or very easy.

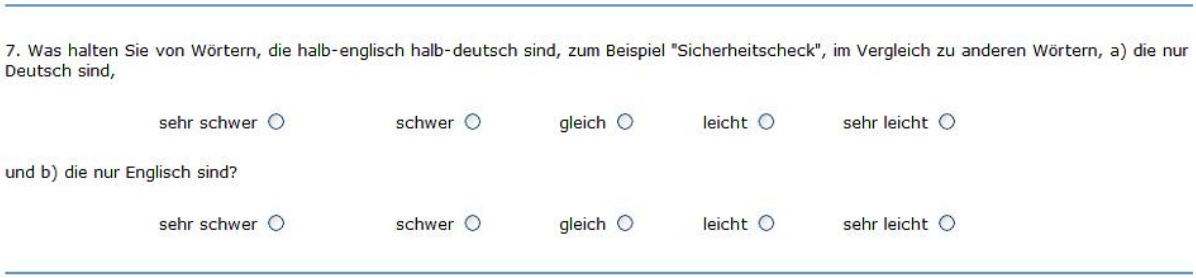


Figure 11.3: Online Survey Q7

Question 8 was adapted from an online survey at *http://www.deutsch-online.com*, which is a website for German as a foreign language. It investigates public opinion regarding the influence of English on German. Its actual title is

> "*Denglisch ist supercool... oder: der Einfluss von Englisch auf die deutsche Sprache*" (Denglish is super cool... or: the influence of English on the German language.)

The only option that I omitted was "*Ich habe Englisch als Muttersprache, und sehe in Denglisch kein Problem*" (English is my native language and I see no problem with Denglish), because as already stated only native speakers of German were taking part in my survey. The remaining options which were left for respondents to choose from constitute Question 8. These are:

- Ist ganz normal - Englisch beeinflusst meine eigene Muttersprache ebenfalls sehr. ('It is totally normal - English greatly influences my own mother tongue.')
- *Was soll man machen, Englisch ist eben DIE Weltsprache.* ('What can one do, English is just THE world language.')
- *Es ist gut, dass sich Sprachen verändern und weiterentwickeln.* ('It is good that languages change and develop.')
- *Denglisch ist keine sprachliche Weiterentwicklung.* ('Denglish isn't a linguistics development.')
- *Ich hasse Denglisch!* ('I hate Denglish!')
- *Dieses Thema interessiert mich absolut nicht!* ('This topic doesn't interest me at all!')
- *Im Englischen gibt es doch auch eine Menge deutscher Wörter!* (There are also a multitude of German words in English!)

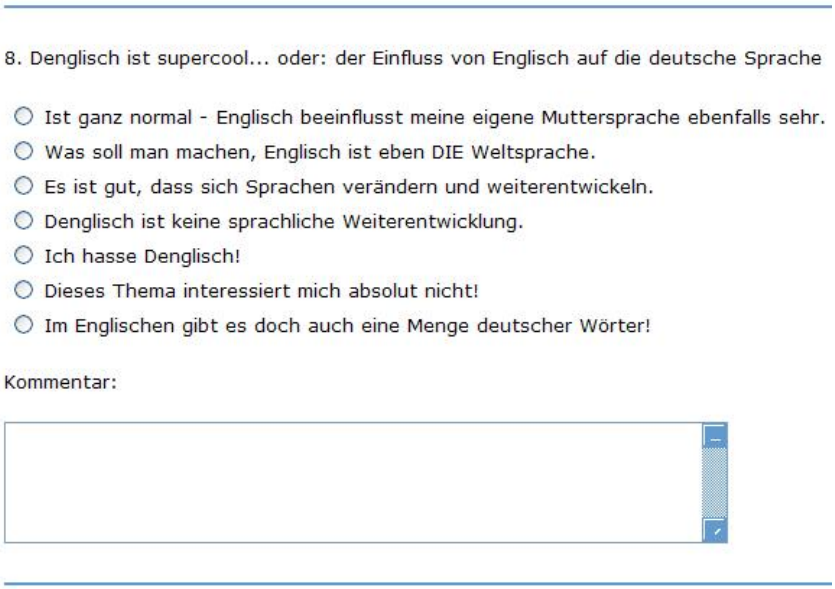


Figure 11.4: Online Survey Q8

The results of the survey on *www.deutsch-online.com* found that 26.4% of respondents hated *Denglish*, 24% said that it was good that a language develops, 20% said that Denglish isn't a linguistic advancement, 15.2% said that English is THE world language, 6.4% said there were many German words in English, 5.6% said that English influenced their own langauge, 1.6% said they had no interest in the topic and only 0.8% were native English speakers. My personal opinion is that it is good for a language to develop, but it will be interesting to find out what the respondents to my survey think.

Chapter 12

Results of Survey

The survey was hosted on college webpages and a link was emailed to prospective respondents. I was very pleased with the number and speed of the replies. Additionally, many people had not only taken time to answer the questions, but had also filled out all the commentary boxes. This highlights the fact that there is currently substantial interest in the topic of anglicisms in German today. They first 50 replies which were valid, i.e. all respondents had German as their mother tongue, were used in the investigation. Unintentionally, exactly 25 replies were from male respondents and 25 from female, so gender was divided 50/50. Regarding age, the youngest respondent was 18 and the oldest was 44. The largest age group represented were the 21 to 30 year olds with 43 respondents, as can be seen from the table below:

Age group:	0-20	21-30	31-40	40+
No. of Respondents:	3	3	43	1

64% of respondents had studied English until the *Abitur*, a further 34% had studied English at University level and only 2% left this question unanswered. In their own opinion, 50% of respondents thought their level of English was very good, 36% said it was good, 14% said it was mediocre and noone thought their English was poor. In response to Q1, how many anglicisms were in the article, the highest percentage of people, 54%, thought there were many. This was followed by 28% who thought there were too many, 10% thought there were enough, 4% said few and only 2% said too few.

Q2 consisted of five sections, each of which enquired whether or not respondents considered the word in question an anglicism. For Q2a, 90% agreed that Homepage was an anglicism, while 10% disagreed. Reasons given in for Homepage being an anglicism

included:

> "homepage gehört zu den Anglizismen, da es rein englischen Ursprung ist. "home" und "page" beides keine deutschen Wörter."
>
> (Homepage belongs to the anglicisms, because it is purely of English origin. Both "home" and "page" are not German words.)

and

> "Home and Page sind beides englische Wörter, allerdings gibt es keine deutsche Übersetzung für Homepage."
>
> (Home and Page are both English words, but there is no translation for Homepage.)

Installation was Q2b and 97% said said it was not an anglicism and just 10% said it was. One respondent said that *Installation*:

> "Könnte auch aus einer anderen Sprache entlehnt sein, z.B aus dem Latein, Französischen etc. (In diesem "Microsoft"-Zusammenhang sicherlich ein Anglizismus nach obiger Definition)."
>
> (could also be borrowed from another language, for example Latin or French etc. (In this "Microsoft" context it is certainly an anglicism according to the definition.))

A total of thirteen people altogether, said that *Installation* was borrowed from Latin. Similarly, for the verb *aktivieren* ('to activate'), which was Q2c, 96% said it was an anglicism, 2% said it was and a further 2% left this question unanswered. Once again reasons for not being an anglicism included that it was originally from Latin or French or simply that it was a German word. 80% of respondents thought that *Sicherheitscheck* was an anglicism, while only 20% said it wasn't. The most frequently quoted reason for choosing yes was that *check* was simply an English word. Lastly, 98% of people believed that Q2e,

Sicherheitsüberprüfung, wasn't an anglicism. The main reasons given for this were that it was German or two German words combined. The remaining 2% said that it was an anglicism because they correctly identified *Sicherheitsüberprüfung* as a *Lehnübersetzung* or Loan Translation from English.

In response to Q3, 52% believed that the presence of anglicisms in the text made their overall understanding of the article easier, but 48% disagreed. For Q4, 68% stated that there were no words in the text which they didn't understand. Only 32% said there were words which they didn't understand and of these the most frequently cited word was *patch*[15]. Q5 was a comparative question to find out which word respondents used from eight different pairs of words, i.e. the anglicism or the equivalent German word. The word pairs and the respective percentage of respondents who chosen each one are given in the table below:

German Word	**Anglicism**	**No Response**
Rechner: 18%	Computer: 82%	0%
Bildschirm: 44%	Monitor: 52%	4%
Tastatur: 86%	Keyboard: 12%	2%
Verknüpfung: 8%	Link: 90%	2%
Werkzeug: 16%	Tool: 80%	4%
hinaufladen: 34%	uploaden: 60%	6%
herunterladen: 42%	downloaden: 56%	2%
verbinden: 94%	konnektieren: 4%	2%

Link, *Computer* and *Tool* with the respective percentages of 90%, 82% and 80% were the three most popular anglicisms. With the exceptions of *Tastatur* and *verbinden*, respondents chose the anglicism each time instead of the German word from the word pairs. A possible explanation for 86% of respondents selecting *Tastatur* instead of *Keyboard* is that, the concept of a keyboard was already identified with the German word *Tastatur*, for example, with using typewriters. To elaborate with this example, typewriters were in operation before the era of the computer, so when computers were invented and the anglicism *Keyboard* was introduced, German speakers did not adopt the anglicism, but retained the word *Tastatur* instead as they already associated it with concept of a keyboard. As for *konnektieren*, the most likely reason why only 4% selected it, is because

[15]A temporary fix to a program bug. A patch is an actual piece of object code that is inserted into (*patched* into) an executable program - http://www.webopedia.com

even though it appeared in Langenscheidts Internet-Wörterbuch (2002) it is a relatively new term and one respondent remarked that:

"konnektieren habe ich noch nie gehört"

(I have never yet heard konnektieren)

and another pointed out that they would use the verb *konnekten* and not *konnektieren*.

The information is visually represented in the following bar chart:

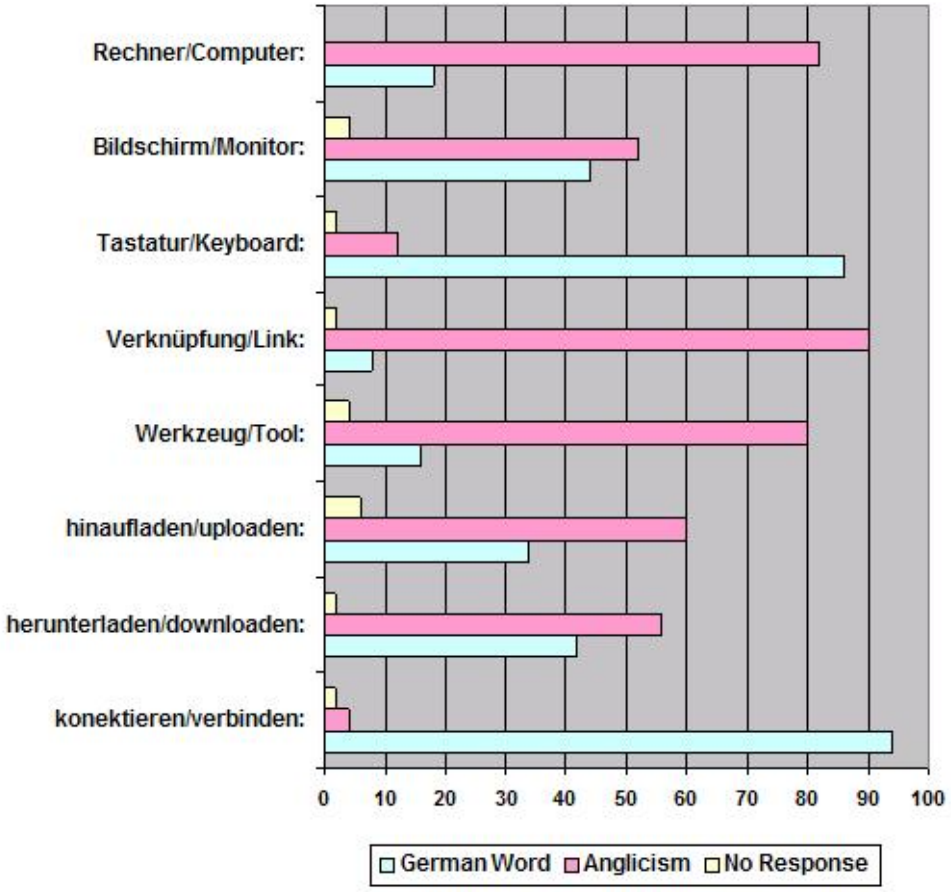


Figure 12.1: Bar Chart of Results for Q5

Overall the anglicism was selected 54.5% of the time, the German equivalent 42.75% of the time and 2.75% accounts for non respondents.

Q6 queried if the respondent's understanding of the text would have been worse, the same or better, if the words which had appeared as anglicisms had been written as their

German equivalents instead. 68% said the same, 24% said worse and 8% said worse. Q7a asked how the respondents find words, which are half-English half-German in comparison with words which are constructed only from German. 62% found them them same, 24% easy, 8% very easy, 4% difficult and the remaining 2% found them very difficult. Q7b asked how respondents find words, which are half-English half-German in comparison to words, which are constructed only from English. 60% replied the same, 16% easy, 16% hard, 4% were non respondents, 2% replied very easy and a further 2% said very difficult. For both Q7a and Q7b, respondents believed they wouldn't find the words any different. Naturally enough 24% of respondents in Q7a would find the all-German equivalents easy compared with only 16% who would find all-English equivalents easy.

The results of Q8, investigating the general opinions of respondents towards English influence on German or *Denglish* are depicted in the pie chart below:

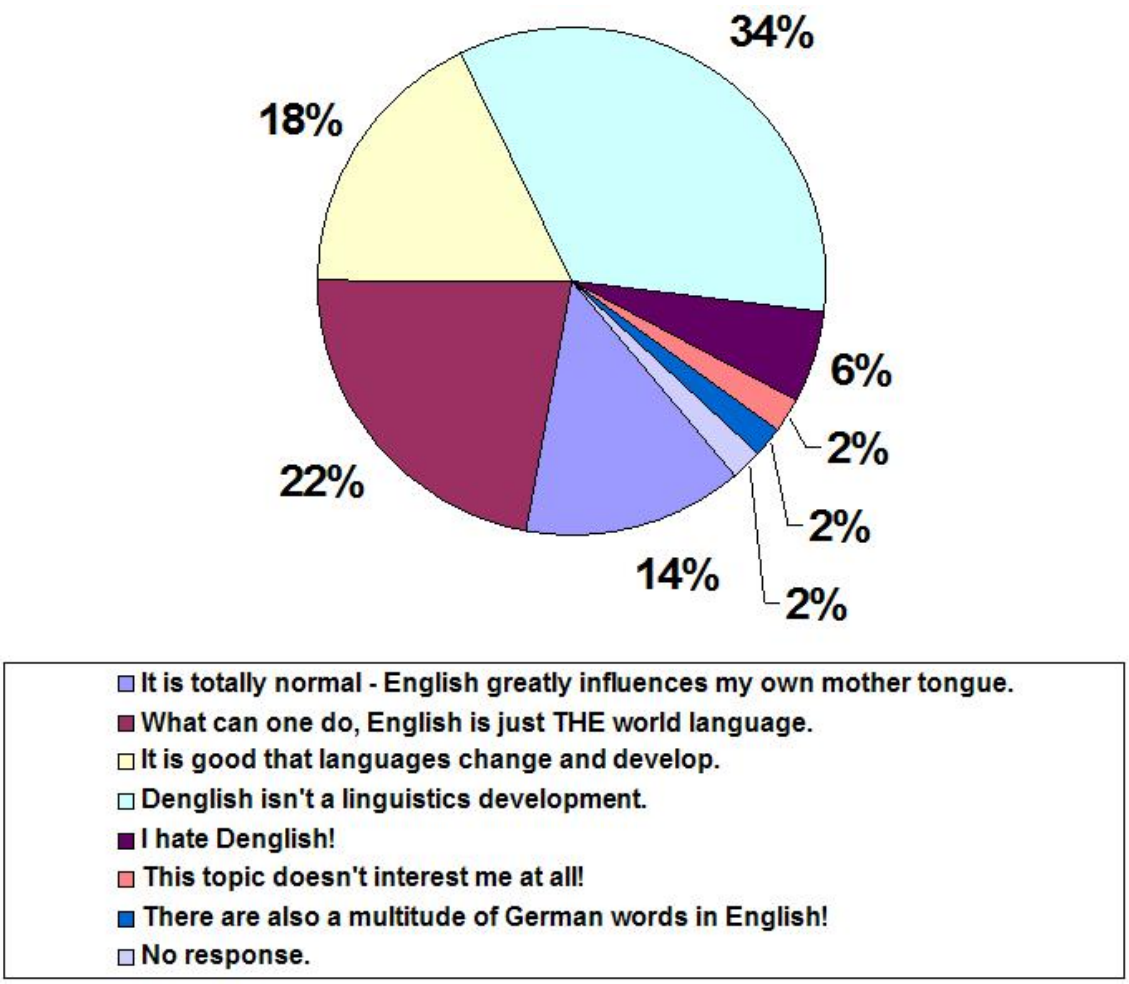


Figure 12.2: Pie Chart of Results for Q8

The majority of people who responded to the survey felt that 'Denglish isn't a linguistic development' (34%), followed by 'What can one do, is English is THE world language' (22%), 'It is good that languages change and develop (18%)' and in fourth place, 'It is totally normal - English greatly influences my own mother tongue (14%)'. The major difference between my survey and the one conducted online at *http://www.deutsch-online.com* is that 'I hate Denglish!', instead of being the most popular opinion, came in at a more moderate position in fifth place with a meer 6% compared to that of 26.4% reported at *http://www.deutsch-online.com*. In joint sixth and last position, with 2% each, were 'There are also a multitude of German words in English!', 'This topic doesn't interest me at all!' and no response. Overall respondents to my survey were more moderate in their opinion towards the influence of English on German and none of them would be quite as fanatical towards *Denglish* as people like Walter Kramer of the *Verein für deutsche Sprache*. This is also reflected in the wide variety of comments, including some very diplomatic ones, which were made by many of the respondents to my survey in the box provided after Q8. A selection of comments are given below:

One opinion regarding Denglish completely dismisses it:

> "*ich finde denglisch nicht wirklich eine bereicherung der Sprachen denn 1. ist bei dem wort "denglisch" nur ein "D" vor englisch gesetzt . . .*"
>
> 'I do not really think that Denglish is an enrichment of language because 1. the word Denglish is only a "D" placed in front of English . . . '

Only one respondent had a clearly negative comment to make:

> "*Es nervt sehr wenn englische Verben im Deutschen konjugiert werden, z.B. ich chille, ich relaxe, ich checke. Furchtbar!*"
>
> 'It annoys me greatly when English verbs are conjugated in German, for example, I chill, I relax, I check. Terrible!'

But another thought:

> "*Wenn bereits ein deutsches Wort existiert, halte ich es für nicht sinnvoll dieses durch ein englisches zu ersetzen (z.b.check).*"

> 'If a German word already exists, I don't find it sensible to replace it with an English word (e.g. check).'

and the next person finds anglicisms bothersome:

> "*Anglizismen haben als technische Fachbegriffe durchaus ihre Berechtigung, sowohl in den Medien (vor allem Werbung mit Jugendlichen als Zielgruppe) als auch in der Umgangssprache sind sie eher störend.*"
>
> 'Anglicisms as technical terms are by all means valid, but in the Media (above all advertisments with teenagers as the target group) and in colloquial language they are bothersome.'

This respondent is saddened by the number of anglicisms in German:

> "*Leider verkommt die deutsche Sprache ein wenig, wenn allzuviele Anglizismen benutzt werden. In einer immer globaleren Welt wird sich aber eben nicht mehr die Mühe gemacht, Worte einzudeutschen, dann wird eben der international gebräuchliche Begriff benutzt. Bei "Link" und "Homepage" ist das verständlich, das eingedeutschte Verb "performen" ist mir hingegen suspekt.*"
>
> 'Unfortunately, the German language occurs less when too many anglicisms are used. In an ever increasing global world, no effort will be made any more to germanise words, then the common international term will just be used. With "Link" and "Homepage" its understandable, but the germanised verb "performen" is suspicious however.'

On the other hand, the next respondent actually likes having anglicisms in German computing terminology:

> "*Einerseits ist es zwar gut, dass sich Sprachen verändern und weiterentwickeln, aber wenn man mal überlegt, wie viele Wörter aus dem Englischen bereits im Deutschen verwendet werden, dann ist es schon ein bisschen erschreckend. Allerdings muss ich zugeben, dass im Bereich der Informatik englisches Vokabular einfach besser klingt, als deutsches.*"

> 'On the one side, it is good that languages change and develop, but when one considers how many words from English are already used in German then it is a little bit shocking. Although I must admit that in the area of Information Technology the English vocabulary simply sounds better that the German.'

More than one respondent, including the one below who does not like to see anglicisms being overused, picked up on the fact that the younger generation uses more anglicisms and that they do so because they associate a certain degree of prestige with using anglicisms:

> "*Ich finde es nicht gut, wenn man übertrieben viele Anglizismen benutzt, da so z. B. ältere Menschen unter Umständen nichts mehr verstehen. Außerdem finde ich, dass jede Sprache ihren Wert hat und es schade wäre, wenn das Deutsche immer mehr mit Anglizismen durchsetzt würde. Aber mir ist natürlich klar, dass sich Sprachen entwickeln und man das schlecht steuern kann allerdings finde ich es bedenklich, dass Englisch bei vielen Jugendlichen als "in", deutsch aber als "out" gilt. Ich selbst benutze aber Angizismen z. B. in der Computersprache.*"
>
> I don't find it good if one exaggeratedly uses too many anglicisms, because for example, in certain contexts older people can't understand them any more. Apart from that, I think every langauge has its own value and it would be a pity if German was to be replaced more and more. But it is naturally clear to me that languages develop and one can navigate badly, indeed I think it is alarming that with many teenagers English is "in" and German is "out". But I myself use anglicisms, for example, in computer terminology."

and also:

> "*Die jungen Leute verwenden auch in der Alltagssprache jetzt mehr englische Wörter als vor 15 Jahren. Die englische Sprache klingt daher für uns sehr jugendlich. Bei offiziellen Anlässen wie politischen Diskussionen oder ähnlichem wird darauf aber verzichtet. Denn dort wäre eine jugendliche Sprache fehl am Platz. Ich bin mir sicher, daßsich das nicht ändern wird, wenn die junge Generation erwachsen wird.*"
>
> 'The young people also use more English words in their everyday speech today than they did 15 years ago. Therefore, the English language sounds very

youthful to us. At official occasions like political discussions or something similar it is renounced. Because a youthful language would be out of place there. I am sure that things will not change when the younger generation are grown up.'

The longest and most descriptive response given was:

"Grundsätzlich ist es schon immer so gewesen, daß Sprachen von einander beeinflußt wurden. Wenn aber der Wortschatz in einer der Sprachen dadurch geringer wird, halte ich die Entwicklung nicht für gut. Wörter, die es im Deutschen schon gibt, sollten nicht durch englische ersetzt werden. Das passiert aber, und da wir damit aufwachsen, sind wir schon so daran gewöhnt, daß es uns fast irritiert, wenn so ein Wort plötzlich auf Deutsch verwendet wurde, z. B. unter "tool" verstehe ich etwas anderes als unter "Werkzeug", wenn es um Computer geht. Andererseits gibt es Wörter wie "homepage", für die man erst eine deutsche Übersetzung kreieren müßte das ist oft nicht sinnvoll. Wir sind kein Land wie Island, das konsequent seinen eigenen Wortschatz erweitert - was ich toll finde. Aber die machen das aus ihrer ureigensten Mentalität heraus wenn in einem deutschen Text statt "homepage" "Heimseite" o. ä. steht, leidet die Verständlichkeit. Das müßte sich dann erst einbürgern. Fazit: Krampfhaft neue Wörter zu kreieren halte ich für Blödsinn. Aber soweit es leicht geht, sollten wir unsere Sprache pflegen. Ich finde dieses Thema sehr wichtig. Anm. zu Frage 6: teils-teils! Manches ist (gewohnheitsbedingt) als Fremdtwort leichter zu verstehen, anderes wieder leichter auf deutsch."

'*Fundamentally, it has always been that languages are influenced by one another. But if the vocabulary in one of the languages is thus reduced, I don't consider the development as good. Words which already exist in German should not be replaced by English words. But this happens and we have grown up with this, and we are now so used to it, that it nearly irritates us if a word is suddenly used in German, for example with "tool" I understand something completely than with "Werkzeug" when it is to do with a computer. On the other hand, there are words like "homepage" where one must create a German translation that is often not meaningful. We are not a country like Iceland, which consequently develops its own vocabulary - which I find fantastic. But they do this out of their very own mentality but when "Heimseite" instead*

of "homepage" occurs in a German text it damages the comprehensibility. It must be made more natural first. Conclusion: I consider words which are created spasmodically rubbish. But as far as possible, we should care for our language. I find this topic very important. In answer to Question 6: half-half. It is often (out of habit) easier to understand a foreign word than to readopt easier ones in German.'

Valid points made above include: firstly, languages have always been influenced by one another, secondly if the the vocabulary of a language is reduced during language contact this person does not consider it a linguistic development, thirdly this person is used to English as they were growing up, but they do not like sudden changes in vocabulary for words they already use. The fourth point is quite interesting: Iceland is cited as an example of a monolingual society and this person is of the opinion that because Germany is not monolingual they do not create as much German vocabulary as they should, but borrow it from other languages instead. Lastly they think a language should be cared for.

The following respondent admits that English is currently the dominating language, but they remain positive that the anglicisms will eventually die out and they believe English is not a threat to German:

"*Englisch ist im Moment die dominierende Sprache auf der internationalen Bühne. Und das in den verschiedensten Bereichen. Ich glaube, dass sich viele Entlehnungen nicht lange halten werden. Und besonders sprachliche Entlehnungen, die gleichzeitig Sachentlehnungen sind, wie im Bereich der Informatik, werden wahrscheinlich verschwinden sobald die "Sachen" verschwinden. Ich glaube nicht, dass Entlehnungen aus dem Englischen eine Gefahr darstellen. Es nervt mich aber oft, wenn Unternehmen englische Wörter benutzen, nur um "cooler" zu wirken. (Siehe Deutsche Bahn, BP, Deutsche Telekom und andere).*"

'English is currently the dominating language on the international stage. And in the most differing areas. I think, that many borrowings will not remain for long. And especially linguistic borrowings, which are at the same time borrowings of items, as in the area of IT, will probably disappear as soon as the "item" disappear'. I don't think that borrowings from English pose a threat. Though it often annoys me, when businesses use English words only to appear "cooler". (For example, Deutsche Bahn, BP, Deutsche Telekom and others.)'

These comments are quite a mix of opinions, but it was necessary to give a wide range to show that not everyone holds the same beliefs towards anglicisms in German. Some were slightly negative, some were positive opinions and other respondents remained diplomatically neutral. Some were saddened by the numbers of anglicisms and others were happy to have anglicisms in German computing terminology. But most importantly, there were no respondents who were fanatically anti-English. In fact, many of the respondents seem to accept the fact that languages change and influence each other, and that borrowing occurs for a variety of reasons. The next chapter is the final chapter, where I present the conclusions of this dissertation.

Chapter 13

Conclusions

As was evident throughout this dissertation anglicisms are a multifaceted phenomenon. Many different aspects of borrowing and the various characteristics of anglicisms required careful consideration. Betz's classification of borrowing proved to be a very effective system of classification when applied to my corpus of anglicisms in German computing magazines. To summarise my findings, the categories evident in the corpus, in descending order of types, were Loan Translations (32.80%), assimilated Loan words (28.15%), Foreign Words (25.22%), Loan Meanings (10.90%), Loan Renditions (1.71%) and lastly Loan Creations (1.22%). These values verify and collaborate Yeandle's findings. More importantly though, the overall percentage of anglicisms relating to IT was 15.81% for types and 31.84% for tokens. This is a very significant proportion of the total vocabulary present. The number of types being 15.81% is considerably high, but for this to double to 31.84% for the number of tokens is quite extraordinary. It means that in terms of tokens, anglicisms represent nearly one third of the entire corpus. This reinforces the fact that German is currently borrowing substantially from English. Maybe it is unfair to have chosen computer terminology for my analysis because many would argue that it is unrepresentative of the German language in general, but even after taking this into consideration the proportion of anglicisms is still very high and is a reality which cannot be ignored.

On the other hand, German does manage to integrate anglicisms quite well and it has already been subjected to heavy influence from Latin and French in the past and has still managed to survive. Not only 'survived', but also changed and developed into the langauge it is today. Many people forget this in the current confusion and paranoia regarding anglicisms.

The online survey to determine public opinion on anglicisms in German was very success-

ful. The overall findings show that public opinion in general does not perceive English as a threat and many comments were more diplomatic than expected when taking into consideration the current debate. From this I conclude that it is only the scaremongers like Kramer and Zimmer (1997) who have sparked off the debate over anglicisms and the retaliations from the academics including Hohenhaus (2001) and Barbour (2001) have only accelerated things further. My final point to make is that it will be quite interesting to observe how things proceed and to discover who will be proved right in the end.

Chapter 14

Appendices

14.1 Appendix A - Magazine Articles

Auf CD

SuperHTML 5.0

Für schnelle Websites

Möchten Sie in kurzer Zeit eine einzelne Webseite gestalten? Dann ist SuperHTML 5.0 das richtige Werkzeug für Sie.

Für die Entwicklung einzelner Webseiten eignet sich ein reiner HTML-Editor, wie beispielsweise SuperHTML von Joachim Schwieren, den Sie als Vollversion mit der Versionsnummer 5 auf der Heft-CD finden, meist besser als eine komplette Entwicklungs-Suite. So richten Sie das Programm perfekt ein:

Installieren

Die Installation kann direkt von der CD aus erfolgen. Nötig ist dazu allerdings ein Freischaltcode. Wie Sie den bekommen, ist auf der CD beschrieben.

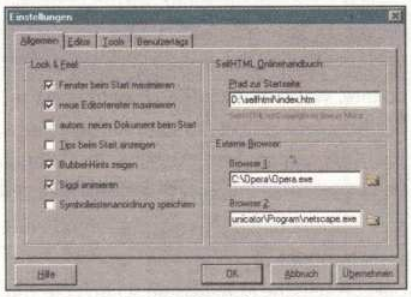
Wenn Sie den Code erhalten haben, starten Sie die Installation und fügen im Dialogfenster den Freischaltcode ein. Danach können Sie wie gewohnt die Installation vornehmen. Sobald sich der InstallShield-Wizzard nach erfolgreicher Aktion beendet hat, können Sie SuperHTML sofort starten und auch schon Seiten gestalten. Sinnvoller ist es aber, zunächst einige Einstellungen zu ändern.

SelfHTML

Gerade für Einsteiger ist die berühmte Anleitung SelfHTML von Stefan Münz eine echte Hilfe. Daher können Sie aus SuperHTML heraus direkt darauf zugreifen (*Hilfe / SelfHTML Handbuch*). Der Nachteil: Sie müssen dazu online sein. Auf der SelfHTML-Homepage finden Sie aber auch einen Link, der den Download des kompletten Kompendiums ermöglicht. Nachdem der Download beendet und alles entpackt wurde, starten Sie SuperHTML 5.0 und wählen *Optionen*. Achten Sie darauf, dass der Haken bei *Einstellungen speichern* gesetzt ist und wechseln Sie zu *Einstellungen / Allgemein*. Auf der rechten Seite geben Sie unter *Pfad zur Startseite* den kompletten Pfad zu dem Verzeichnis an, in das Sie SelfHTML entpackt hatten, also z.B.: *D:\selfhtml\index.htm*. Zuletzt klicken Sie auf *Übernehmen* und auf *OK*. Von jetzt an steht Ihnen SelfHTML auch offline zur Verfügung.

Vorschau mit anderem Browser

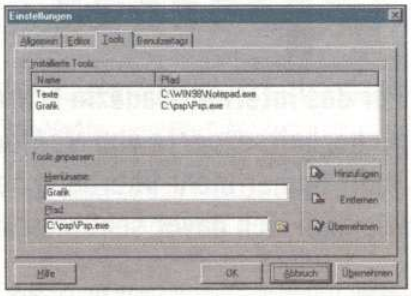
Standardmäßig benutzt SuperHTML zur Seitenvorschau den Internet Explorer. Sie haben aber auch die Möglichkeit, bis zu zwei weitere Browser einzubinden. Wechseln Sie dazu in *Optionen / Einstellungen / Allgemein*. In den beiden Feldern unter *Externe Browser* tragen Sie die Pfade zu den gewünschten Browsern ein, im Beispiel sind das Opera und Netscape.



Sie haben die Möglichkeit, externe Browser sowie eine Offline-Version von Stefan Münz' SelfHTML einzubinden.

Weitere Tools

Brauchen Sie während der Arbeit an einem HTML-Dokument des öfteren mal ein weiteres Programm, so können Sie es in die Menüleiste von SuperHTML mit aufnehmen. So sind Sie nicht gezwungen, das Startmenü oder Icons auf dem Desktop zu verwenden. Dazu benötigen Sie wieder den Menüpunkt *Optionen* und dort *Tools konfigurieren*. Bei *Menüname* tragen Sie den Text ein, unter dem der neue Menüpunkt später erscheinen soll. Unter *Pfad* geben Sie an, wo sich das gewünschte Programm befindet. Klicken Sie zuletzt auf den Button *Hinzufügen*. Hier können Sie beliebig viele Programme und Tools eintragen, indem Sie die Schritte für jedes einzelne Programm wiederholen. Sind Sie damit fertig, klicken Sie wieder auf *Übernehmen* und auf *OK*. Von nun an stehen Ihre externen Programme direkt von SuperHTML aus unter dem Menüpunkt *Tools* zum Aufruf bereit.



Zusatzprogramme können Sie direkt von SuperHTML aus verfügbar machen.

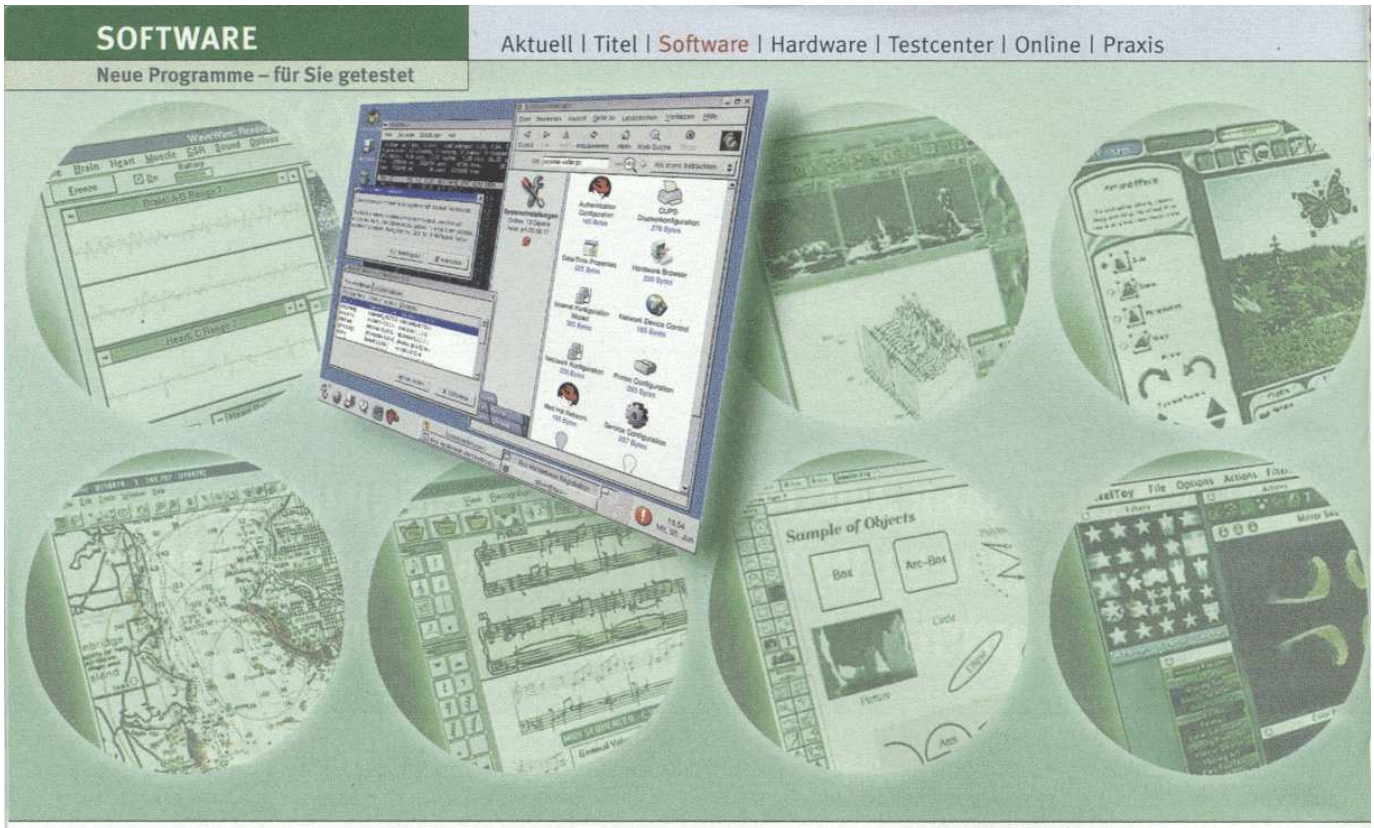
Die Benutzertags

XML erlaubt die Definition eigener Tags. Leider stehen die aber nicht in einer Menüleiste zur Verfügung, da das Programm sie ja nicht kennt. Auch dies lässt sich ändern. Mithilfe des Menüs *Optionen / Benutzertags* haben Sie die Möglichkeit, eigene Tags so in das Programm mit aufzunehmen, dass sie anschließend unter dem Menüpunkt *Benutzertags* per Mausklick in Ihr Dokument übernommen werden können.

Die Vorgehensweise ist dieselbe wie beim Einrichten externer Programme. Unter *Tagname* tragen Sie die Bezeichnung des neuen Tags ein, sie erscheint später im Menü. Bei *XML-Syntax* tragen Sie dann den Tag selbst ein, und zwar in der Form <„Eröffnender Tag"><„Schließender Tag" >. Ein Klick auf *Hinzufügen* übernimmt Ihren neuen XML-Befehl dann in das Menü. Klicks auf *Übernehmen* und *OK* schließen den Vorgang ab.

Ottfried Schmidt / osc

Figure 14.1: *Article 1: Internet Magazin, September 2002.*



19 Programme im Test

Neue Software

Diesen Monat: Clone-CD 4 und zwei weitere Brennprogramme, McAfee Desktop Firewall 7.5, Red Hat Linux 7.3 und viele mehr.

▸Einige Brennprogramme hatten wir im Test: Sehr gut schnitt Clone-CD 4 ab. Die neue Bedienerführung macht das Kopieren von CDs einfach. Und auch aktueller Kopierschutz ist für die Software kein Problem. Davideo CD-Brenner 5.5.6 besticht mit sehr guter Benutzerführung, doch fehlen Funktionen für das Erstellen bootfähiger CD-ROMs und auch UDF-Treiber sowie MP3-Encoder. Blindwrite Suite 4.0 ist teilweise verwirrend in der Bedienung, kann aber Kopierschutzmechanismen auch auf älteren Brennern umgehen. Der Internet-Film-Brenner in Version 0.9.10 soll im Internet nach Videodateien suchen und die Filme als Video-CD brennen. Doch wies die Software im Test erhebliche Mängel auf.

Ein rundum gelungenes Paket ist Xmetal in Version 3.0. Der XML-Editor bietet Entwicklern jeden Komfort und verfügt über einen großen Funktionsumfang. Gute Import- und Projektmanagement-Funktionen gehören ebenso zum Leistungsspektrum wie ein Makro-Editor und Schema-Unterstützung. Ein Manko ist, dass die Software nicht auf Deutsch verfügbar ist.

Red Hat Linux 7.3 Professional ist eine ausgereifte, wenn auch teure Distribution für Profis. Instabil lief im Test nur der Paketmanager unter Gnome.

Mit Win4Lin 4.0 kann der Anwender unter Linux Software einsetzen, die es bisher nur für Windows gibt. Der PC-Simulator erlaubt es, Windows 95 und 98 in einem X-Fenster unter Linux laufen zu lassen. Win4Lin bietet im Vergleich zur Konkurrenz zwar eine höhere Arbeitsgeschwindigkeit, lässt aber deutlich weniger Gast-Betriebssysteme zu.

Nicht empfehlen können wir FP-Win Anti-Virus 3.0. Die Antiviren-Software zeigte Ungereimtheiten und bietet ein schlechtes Preis-Leistungs-Verhältnis.

Daniel Behrens, Ursula Grimm

Für Sie getestet	Seite
▷ Antiviren-Software	100
▷ Backup-Software	96
▷ CD-Brenn-Software	95
▷ Fernsteuer-Software	98
▷ Firewall	96
▷ Linux-System	98
▷ Packprogramm	99
▷ Partitionierer	96
▷ Passwort-Tools	99
▷ PC-Simulator	97
▷ Sicherheits-Software	101
▷ Such-/Brenn-Tool	103
▷ Systemoptimierung	98
▷ Taskmanager	101
▷ Überwachungs-Tool	100
▷ Verschlüsselung	100
▷ XML-Editor	97

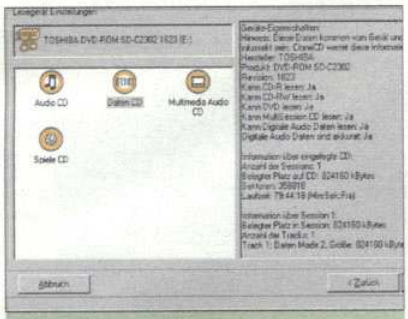
So wertet die PC-WELT

●●●●●	hervorragend
●●●●○	gut
●●●○○	befriedigend
●●○○○	ausreichend
●○○○○	mangelhaft
○○○○○	ungenügend

Figure 14.2: *Article 2: PC WELT, September 2002.*

Auf Heft-CD

CD-BRENN-SOFTWARE



Clone-CD 4

Info: Elaborate Bytes
www.elby.de
Preis: 46 Euro

Wertung: ●●●●◐

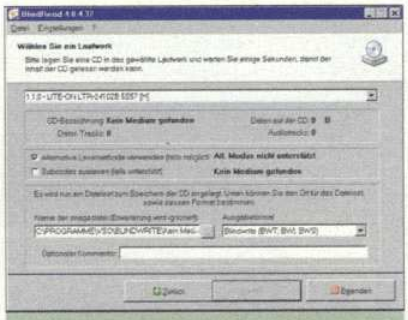
Testurteil: Mit Clone-CD lassen sich selbst von CDs mit aktuellem Kopierschutz Sicherheitskopien erstellen.

▸Mit neuer Bedienerführung präsentiert sich die Version 4 von Clone-CD für Windows 95 B/98/ME, NT 4, 2000 und XP. Die Benutzerführung wurde so stark vereinfacht, dass auch Kopier-Neulinge sofort zurechtkommen. Auswahlfelder, etwa „Subchannel von Daten Tracks lesen", die noch in der Version 3 einige Anwender vom Einsatz von Clone-CD abhielten, sind jetzt nur auf Wunsch sichtbar. Clone-CD 4 stellt stattdessen vorgefertigte Einstellungen – Profile genannt – bereit, die der Anwender einfach passend zur Quell-CD (Audio-, Daten-, Multimedia- oder Spiele-CD) auswählt. Nach ein paar Klicks auf „Weiter" beginnt der Lese-, Schreib- oder Kopiervorgang. Clone-CD 4 analysiert die Quell-CD beim Einlesen und überspringt etwa Lesefehler schneller als Version 3. Spiele, die mit Safedisc 2.51 geschützt sind, stellen keine Hürde dar. Sogar bei einer CD, die mit Safedisc 3 kommt, gelang es im Test mit einem 32fach-Brenner von Lite-On, eine Sicherheitskopie zu erstellen. Auch beim Kopierschutz Cactus Data Shield 200 und Key2audio, die vor allem bei Audio-CDs vorkommen, machte Clone-CD 4 eine gute Figur, obwohl wir manchmal das Lese- und Schreibtempo reduzieren mussten. Eine Testversion ist auf Heft-CD.

Alternative: Einen ähnlichen Funktionsumfang bietet das CD-Kopier-Programm CDR-Win (**www.goldenhawk.de**). -tom

Auf Heft-CD

CD-BRENN-SOFTWARE



Blindwrite Suite 4.0

Info: VSO Software
www.blindwrite.com
Preis: Shareware, 29,90 Euro

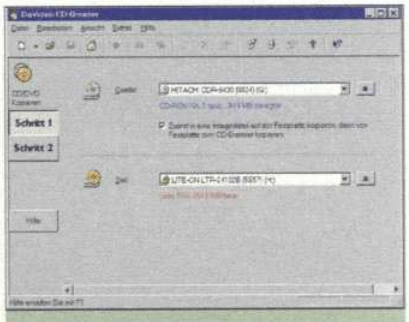
Wertung: ●●◐○○

Testurteil: Das preiswerte CD-Kopier-Tool empfiehlt sich vor allem für ältere Geräte. Einsteiger werden anfangs Probleme haben.

▸Blindwrite Suite für Windows 95/98, NT 4, 2000 und XP besteht aus zwei eigenständigen Modulen: Blindread liest CDs und erstellt Images, Blindwrite schreibt sie auf Rohlinge. Mit der Kombination lassen sich exakte CD-Kopien erstellen, auch wenn die Quell-CD mittels Kopierschutz gesichert ist. Beim Programmstart öffnet sich nur ein Fenster mit zwei CD-Symbolen. Erst auf den zweiten Blick wird klar, welches Symbol welches Modul startet. Die weitere Bedienerführung bis zur fertigen Kopie ist teilweise verwirrend. Es kommt zum Beispiel anfangs immer wieder vor, dass man das Programm durch irreführende Schaltflächen versehentlich beendet. Das Online-Handbuch ist zwar gut strukturiert, aber die angebotenen Informationen sind oft dürftig. Beim Auslesen der Quell-CDs informiert Blindread zwar über aufgetretene Fehler, ob diese korrigiert werden konnten, bleibt aber im Dunkeln. Der Lesevorgang dauert außerdem länger als bei anderen Kopier-Tools. Interessant ist das Modul Blindwrite aber allemal, da es Kopierschutzmechanismen auf Basis von defekten Sektoren, etwa Safedisc, auch auf älteren Brennern umgeht, die nicht den Raw-DAO-Modus unterstützen. Die Shareware läuft 30 Tage.

Alternative: Clone-CD (**www.elby.de**, ▷ Seite 95) ist teurer, dafür aber einfacher zu bedienen. -tom

CD-BRENN-SOFTWARE



Davideo CD-Brenner 5.5.6

Info: G-Data
www.gdata.de
Preis: 39,95 Euro

Wertung: ●●●○○

Testurteil: Die Software eignet sich für Einsteiger. Es fehlen jedoch einige Funktionen, UDF-Treiber und MP3-Encoder.

▸Davideo CD-Brenner für Windows 98 SE/ME, NT 4, 2000 und XP besticht durch eine sehr gute Benutzerführung. Das Programm unterstützt alle gängigen CD-Formate, inklusive Brennen von CDs aus ISO-Images. Bootfähige Datenträger lassen sich nicht generieren. Die Software unterstützt Technologien zur Vermeidung von Buffer Underruns. Kopiergeschützte CDs mit Key2audio oder Safedisc sind kein Hindernis, da Davideo CD-Brenner defekte Sektoren auf der Quell-CD ignoriert. Bei Cactus Data Shield 200 musste das Programm passen. Das Handbuch ist übersichtlich. Auch eine Liste der unterstützten CD-Brenner fehlt nicht. Bei der Installation bemängelte Davideo CD-Brenner das Vorhandensein anderer CD-Brenn-Software auf dem System. Die Installationsroutine wollte Nero Burning ROM durch Umbenennen von Treibern deaktivieren. Nachdem das abgelehnt wurde, ließ sich Davideo CD-Brenner trotzdem problemlos einrichten und arbeitete einwandfrei. Als Flop stellte sich das Update via Internet heraus. Der Link führte zur englischsprachigen Homepage von Newtech Infosystems. Dort gab es allerdings kein Update für Davideo CD-Brenner, sondern nur für ein ähnliches Programm namens NTI CD-Maker.

Alternative: Win on CD 5 (**www.roxio.de**, PC-WELT 2/2002, Seite 84) ist teurer, bietet aber mehr Funktionen. -tom ▸

Was ist eigentlich...

01 Firewall[6]
Eine Firewall ist ein Computer-Programm zum Schutz vor unbefugten Zugriffen aus dem Internet und damit auch vor dem Ausspionieren persönlicher Daten.

02 Viren-Scanner
Das sind Programme, die die meisten bekannten Viren 03 kennen und unschädlich machen.

03 Virus
Ein Computer-Virus ist ein kleines Schädlings-Programm, das Daten auf dem Computer verändern oder sogar komplett zerstören und löschen kann. Viren gelangen über Disketten, CD-ROMs oder über das Internet in den Computer.

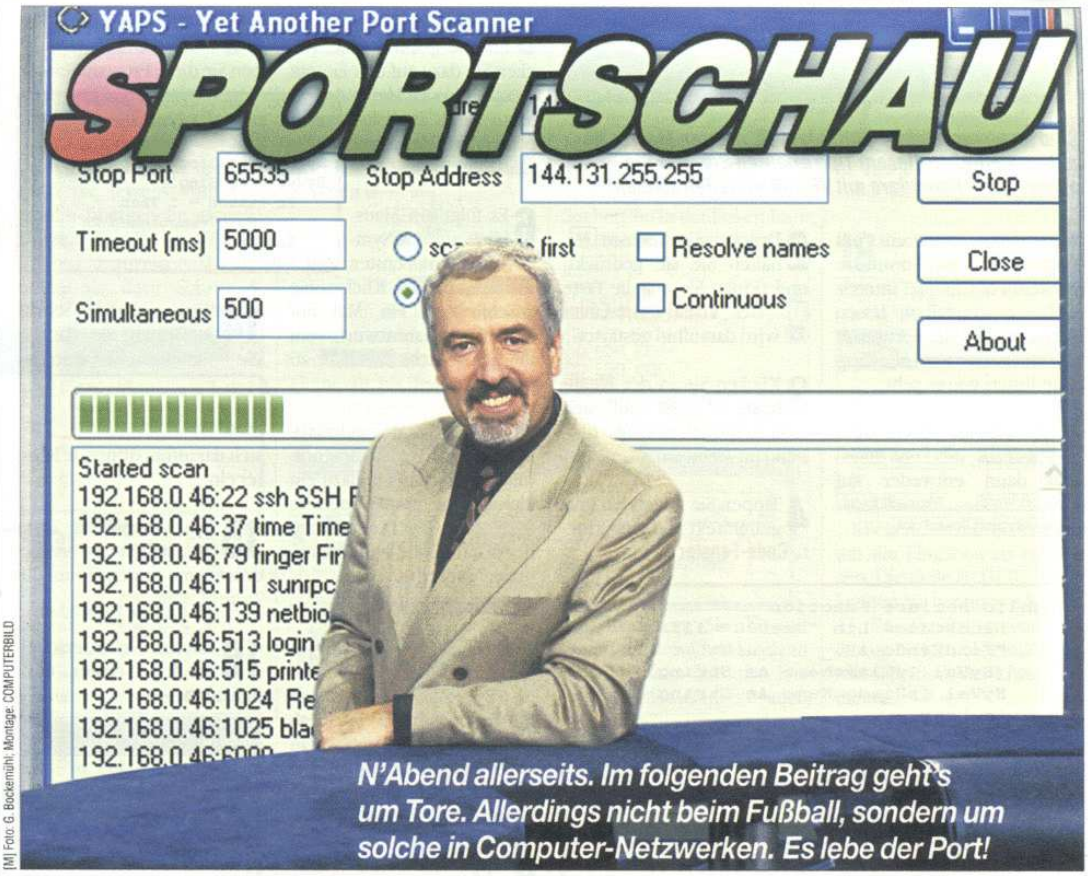
04 Internet-Protokoll
Das Internet-Protokoll (kurz: IP) ist ein standardisiertes Verfahren, das zur Datenübertragung im Internet und in privaten Netzwerken benutzt wird.

05 Server[7]
Server (auf Deutsch: „Diener") sind Computer, die Dienstleistungen in Netzwerken zum Abruf bereithalten.

06 Browser[8]
Browser ist der englische Fachbegriff für Internet-Anzeigeprogramme. Der bekannteste Browser ist der Internet Explorer 07 von Microsoft.

07 Internet Explorer
Mit diesem kostenlosen Programm des Herstellers Microsoft können Sie das Datennetz Internet durchstöbern sowie Texte, Grafiken und Musikdateien abrufen.

SPORTSCHAU



[M] Foto: G. Bockemühl; Montage: COMPUTERBILD

N'Abend allerseits. Im folgenden Beitrag geht's um Tore. Allerdings nicht beim Fußball, sondern um solche in Computer-Netzwerken. Es lebe der Port!

Das müssen Sie wissen

Was Sie in diesem Artikel erwartet

- **So ermitteln und beseitigen Sie Sicherheitslücken**
- **Diesen Schutz bietet ein so genannter Port-Scanner**[1]
- **Das sollten Sie bei der Einrichtung mehrerer Benutzer beachten**

COMPUTERBILD hat Ihnen im Netzwerk-Kurs „Computer verbinden" (Ausgabe 2 bis 7/2002) Sicherheitshinweise gegeben und gezeigt, wie Sie Ihr Netzwerk mit einer Firewall 01 vor unberechtigten Zugriffen und mit Viren-Scannern 02 vor Viren 03-Attacken schützen können. Aber ist Ihr Netzwerk damit ausreichend gesichert? Oder gibt es doch noch eine Möglichkeit, sich Zutritt über einen der im Netzwerk angeschlossenen Computer zu verschaffen?

In diesem Artikel erfahren Sie, wo sich mögliche Schwachstellen im Netzwerk befinden und wie Sie Schäden mit einer Sicherheitsüberprüfung vorbeugen können.

Welche Sicherheitslücken hat ein Netzwerk-Computer?

Das größte Risiko für einen Computer im Netzwerk entsteht durch den Benutzer selbst: Sichert er den Zugang zum Computer mit einem leicht zu erratenden Kennwort, kann ein „Datenpirat" ohne großen Aufwand in das Netzwerk eindringen, zum Beispiel über das Internet. Wie Sie eine solche Lücke aufspüren, lesen Sie im Abschnitt „Sicherheitsprüfung durchführen" auf Seite 122.

Weitere mögliche Sicherheitslücken in Netzwerken sind die Ports.

Was ist ein Port?

Port bedeutet „Anschluss" oder „Öffnung". Bei Ports handelt es sich um Nummern zwischen 0 und 65 535, die in Internet-Protokollen 04 verwendet werden, um die Kontaktaufnahme der Computer untereinander zu ermöglichen: Jedes Programm, das eine Verbindung zu einem Programm auf einem anderen Computer herstellt, benutzt dazu Ports.

Spielen mehrere Personen in einem Netzwerk, werden die Spielstände über spezielle Ports ausgetauscht. Auch Internet-Programme übermitteln Informationen über Ports, etwa für den Versand und Empfang elektronischer Post (E-Mail[2]). Können andere Computer vom Internet aus über einen dieser Ports Daten an Ihren Computer senden und von ihm empfangen, sind unberechtigten Zugriffen Tür und Tor geöffnet.

Wie kann ich mein Netzwerk auf offene Ports überprüfen?

Mit einem speziellen Überprüfungsprogramm, einem so genannten Port-Scanner, lässt sich schnell herausfinden, welche Ports und damit Netzwerk-Programme auf einem Server 05 oder einem Netzwerk-Computer aktiv sind. Nur die Ports, die auf eine Anfrage des Port-Scanners „antworten", stehen jeweils offen. Der PC, auf dem der Port-Scanner gerade läuft, kann dabei nicht auf offene Ports überprüft werden. Denn eine Anfrage des Port-Scanners an sich selbst ergibt teilweise falsche Ergebnisse.

Ein Port-Scanner ist etwa das englischsprachige Programm „Yaps 1.0.0.26". Es funktioniert ganz einfach: Yaps sucht alle vorhandenen Ports auf einem (oder mehreren) zu überprüfenden Computer(n) und testet, ob sie offen sind. Dafür schickt das Programm eine Testnachricht an jeden Port. Wird eine Antwort übermittelt, ist der entsprechende Port aktiv und stellt damit auch eine mögliche Schwachstelle im Netzwerk dar. Deshalb sollten Sie alle Ports schließen, die nicht unbedingt benötigt werden (siehe Netzwerk-Kurs „Computer verbinden" in Ausgabe 11/2002 auf Seite 162).

Wie überspiele ich das Programm Yaps auf meinen Computer?

Im Internet gibt es zahlreiche kostenlose Port-Scanner, die Sie auf den Computer überspielen können. Yaps 1.0.0.26 finden Sie auf der Internet-Seite →①. Wie Sie das Programm überspielen und einsetzen, lesen Sie in diesem Artikel.

Vorsicht: Es gibt ein gleichnamiges Programm, das jedoch anders funktioniert.

Internet: →① www.webattack.com

1 sprich: „Skänner" 2 sprich: „I-Mail" 3 sprich: „Skänns" 4 sprich: „Hohm" 5 sprich: „Prohfeschnell" 6 sprich: „Faierwohl" 7 sprich: „Ssörwer" 8 sprich: „Brauser" 9 sprich: „Sipp" 10 sprich: „Ai-Pi"

Figure 14.3: *Article 3: Computer Bild, August 2002.*

Sicherheitslücken im Netzwerk finden

Im Folgenden erfahren Sie, wie Sie mögliche Sicherheitslücken auf Netzwerk-Computern mit dem Port-Scanner Yaps 1.0.0.26 ermitteln. Um das Programm zu installieren, benötigen Sie das Datenkomprimierungs-Programm „Winzip". Dieses war etwa auf der Heft-CD-ROM in Ausgabe 19/2001.

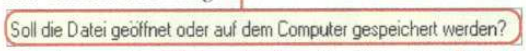
1 Starten Sie einen **Browser** 06, zum Beispiel den **Internet Explorer** 07. Dazu klicken Sie auf Start und Internet Explorer. Stellen Sie gegebenenfalls vorher eine Internet-Verbindung her.

2 Geben Sie in das Adressfeld ein, und drücken Sie

Sie ein Mal auf die ↵-Taste.

3 Daraufhin öffnet sich die Internet-Seite

Um das Überspielen des Programms Yaps zu starten, quittieren Sie die nach kurzer Zeit erscheinende Frage



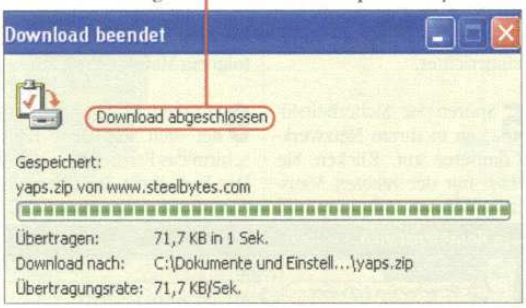
mit einem Mausklick auf Speichern.

4 Klicken Sie danach neben Speichern in auf , so dass

angezeigt wird.

Wählen Sie per Mausklick Desktop aus, und drücken Sie auf ↵, um Yaps beispielsweise auf der Arbeitsoberfläche des Computers zu speichern. Sie können auch einen anderen Speicherort auswählen.

5 Kurze Zeit später erhalten Sie die Meldung



Damit ist das Überspielen von Yaps beendet. Schließen Sie das geöffnete Fenster per Klick auf Schließen, und beenden Sie wie gewohnt die Internet-Verbindung.

6 Yaps ist als **ZIP** 08-Datei gespeichert. Um es zu installieren, klicken Sie mit der *rechten* Maustaste auf das Symbol

Im sich öffnenden **Kontextmenü** 09 klicken Sie dann auf Extrahiere in den Ordner.

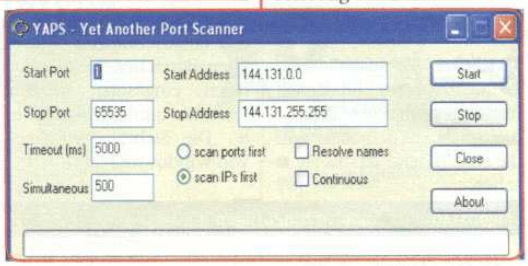
7 Erscheint das „Winzip"-Fenster, klicken Sie auf

Ist mir bekannt. Andernfalls machen Sie gleich mit Schritt 8 weiter.

8 Klicken Sie jeweils doppelt auf das Symbol

und auf den Dateinamen „yaps.exe", der bei einem „Windows-XP"-Computer zum Beispiel als Symbol in dieser Form dargestellt wird:

Daraufhin öffnet sich das Programmfenster von Yaps auf dem Bildschirm:

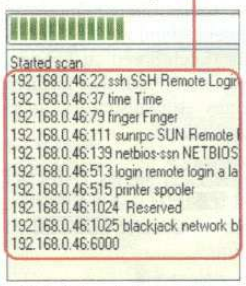


9 Nach dem ersten Öffnen des Fensters ist neben Start Address und Stop Address standardmäßig 144.131.0.0 und 144.131.255.255 eingetragen. Geben Sie an Stelle beider Werte jeweils die **IP-Adresse** 10 des Computers ein, der mit Yaps überprüft werden soll, etwa 192.168.0.46.

Um alle im Netzwerk angeschlossenen Computer mit Yaps zu „scannen", ohne das Programm mehrmals starten zu müssen, geben Sie den Adressbereich im entsprechenden **Subnetz** 11 an. Das heißt: Für Start Address würden Sie zum Beispiel die IP-Adresse **192.168.0.1** und für Stop Address die IP-Adresse **192.168.0.100** eingeben.

Im folgenden Beispiel bleibt es bei der Überprüfung eines Netzwerk-Computers.

10 Starten Sie das Programm mit einem Mausklick auf Start. Der Fortschritt des „Scans"[3] wird durch einen grünen Balken dargestellt. Darunter listet das Programm alle Ports auf, die seine Anfrage beantwortet haben, im Beispiel



Dabei handelt es sich um offene Ports. Sobald die Überprüfung der Ports mit der Nummer 1 bis 65535 abgeschlossen ist, erscheint die Meldung Stopping scan.

Im Beispiel hat Yaps unter 65535 überprüften Ports 14 aktive und somit offene Ports (connect 14) gefunden. 65521 Ports haben auf die Anfrage von Yaps nicht reagiert und sind folglich geschlossen.

Um zumindest einige der offenen Ports in Ihrem Computer zu schließen, gehen Sie am besten so vor, wie es im Netzwerk-Kurs „Computer verbinden" (Heft 11/2002 auf Seite 162) beschrieben wurde.

Benutzerkonten absichern

Windows XP ist ideal für mehrere Anwender, die einen PC gemeinsam nutzen wollen – und zwar sowohl in der „Home"[4]- als auch in der „Professional"[5]-Version. Bei der Installation von Windows XP werden Sie aufgefordert, für jeden Benutzer dieses Computers ein eigenes **Benutzerkonto** 12 einzurichten. Bis zu fünf solcher Konten sind pro Computer möglich.

Was viele nicht wissen: Jeder Benutzer hat nach der ersten Installation automatisch die Rechte eines **Administrators** 13. Unter dem Aspekt der Sicherheit ist das mehr als leichtsinnig. Denn bei der Einrichtung von XP werden Sie an keiner Stelle darauf aufmerksam gemacht, dass jeder Benutzer wie ein Administrator auf den Computer und alle darauf gespeicherten Dateien zugreifen kann. Ihm ist also erlaubt, Netzwerkeinstellungen zu ändern oder neue Programme zu installieren.

Fazit: Bereits bei der Einrichtung des Computers sollten Sie allen Benutzern (mit Ausnahme des Administrators) die Administrator-Rechte entziehen, indem Sie den Kontotyp der Benutzerkonten ändern. Wie Sie dafür vorgehen, lesen Sie in Heft 15/2002 auf Seite 115.

Was ist eigentlich...

08 ZIP[9]
Um Speicherplatz zu sparen, können Daten und Programmdateien komprimiert, also „geschrumpft" werden. ZIP ist das gebräuchlichste Komprimierungsverfahren.

09 Kontextmenü
Das Kontextmenü, etwa

öffnet sich in fast allen Windows-Programmen nach einem Klick mit der *rechten* Maustaste auf einen Dateinamen oder ein Programmelement.

10 IP[10]**-Adresse**
Für die Durchführung des **Internet-Protokolls** 04 erhält jeder Computer eine IP-Adresse, über die er im Netzwerk erreichbar ist. Sie setzt sich aus vier Zahlen zusammen, die jeweils einen Wert zwischen 0 und 255 annehmen und durch einen Punkt voneinander getrennt sind, zum Beispiel **192.164.1.5**.

11 Subnetz
Das Internet besteht aus vielen Tausenden über spezielle Computer miteinander verbundenen Einzelnetzwerken, den so genannten Subnetzen.

12 Benutzerkonto
Ein Benutzerkonto speichert verschlüsselt Namen und Kennwort eines Benutzers. Die Daten können nur vom Benutzer selbst oder vom **Administrator** 13 geändert werden.

13 Administrator
In der Computer-Technik wird damit die Person bezeichnet, die einen Computer oder ein Netzwerk verwaltet.

14 Datenbank
In einer Datenbank lassen sich zusammengehörende Daten und Informationen sammeln, speichern und abrufen.

Kurztests

Notebook

Asus L3800S

Im brandneuen **L3800S** von Asus verrichtet die Desktopvariante des schnellen Pentium 4 mit 1,8 GHz ihre Arbeit. In Verbindung mit dem flinken Grafikchip Mobility Radeon M7 von ATI bringt er das Notebook gehörig auf Touren und erreicht hervorragende Werte sowohl in den Office- wie in den 3D-Benchmarks. Das 15,1-Zoll-Display liefert bei einer

Schnell und sehr gut ausgestattet ist das neue L3800S aus dem Hause Asus.

optimalen Auflösung von 1400x1050 Bildpunkten ein sehr gutes Bild. Das Gewicht hält sich mit 3,38 Kilogramm trotz großem Display und Vollausstattung – Disketten- und DVD-CDRW-Kombilaufwerk – in erfreulich engen Grenzen. Schwach ist allerdings die Akkulaufzeit mit nur 68 Minuten. Problematisch ist auch der zu laut geratene Prozessorlüfter. Die Leistung der Laufwerke konnte indes ebenso überzeugen wie die übrige Hardware-Ausstattung. Jeweils zwei PCMCIA-, Firewire- und USB-Anschlüsse lassen keine Wünsche offen. Dazu gesellen sich jeweils eine parallele und serielle Schnittstelle sowie ein S-Video-Ausgang. st

FAZIT Das L3800S von Asus ist ein schnelles Notebook mit sehr guter Ausstattung und etwas zu lautem Lüfter. Für einen überwiegend mobilen Einsatz ist die Akkulaufzeit allerdings zu kurz geraten. Hier sollte man lieber auf die – allerdings teurere – C-Serie mit Mobile-Prozessor zurückgreifen.

QUICK INFO

Asus
Tel. (02102) 95 99 10
notebook.asuscom.de
Preis: 2333 Euro

PCgo! 9/2002 sehr gut

PCgo! 9/2002

81 Punkte

⊕ schnell, gute Ausstattung und Verarbeitung

⊖ lauter Lüfter, kurze Akkulaufzeit

Portabler Tintenstrahldrucker

Canon BJC-55

Neben dem BJC-85 bietet Canon mit dem **BJC-55** einen weiteren portablen Farbtintenstrahldrucker an. Der BJC-55 verfügt über eine USB- und eine Infrarotschnittstelle. Der Drucker kann entweder über einen Lithium-Ionen-Akku oder über ein externes Netzteil betrieben werden. Akku und Netzteil gehören zur Grundausstattung. In der Standardausrüstung wird das Gerät mit einem horizontalen Einzelblatteinzug angeboten. Optional können Sie einen Stapeleinzug für 30 Blatt erwerben. Für eine Textseite im Entwurfsmodus benötigt der Drucker 18 Sekunden. Auf eine Seite mit Text, Grafik und Foto mussten wir

Der Canon BJC-55 Tintenstrahler verfügt in der Grundausstattung nur über einen Einzelblatteinzug.

knapp 2 Minuten warten. Die Druckqualität ist gut. Zur Grundausstattung gehören zwei schnell austauschbare Druckköpfe, ein Schwarz- und ein 4-Farb-Druckkopf. Als Druckmedien lassen sich neben Normalpapieren auch Fotopapier und Overheadfolien verwenden. Optional bietet Canon einen speziellen Fotodruckkopf für Canon-Foto-Tinte an. Daneben steht, ebenfalls optional, ein Scankopf zur Verfügung. Der BJC-55 wiegt ca. ein Kilogramm und benötigt 302(B) x 112(T) x 50(H) mm als Stellfläche. hl

FAZIT Der portable Tintenstrahldrucker BJC-55 von Canon ist wegen des Einzelblatteinzugs für umfangreiche Dokumente nicht geeignet. An der Druckqualität und -geschwindigkeit war nichts auszusetzen. Mit nur einem Kilogramm Gewicht und kleinen Außenmaßen erfüllt er seinen Zweck.

QUICK INFO

Canon
Tel. (02154) 49 55 55
www.canon.de
Preis: 389 Euro

PCgo! 9/2002 gut

PCgo! 9/2002

75 Punkte

⊕ Akku und Netzteil, Druckqualität

⊖ teuer, Einzelblatteinzug

Notebook

IBM Thinkpad R31

Wie von IBMs bekannter Thinkpad-Familie gewohnt, kommt auch der neueste Spross in dezentem Schwarz daher. Auch nach dem Einschalten hält sich das Notebook vornehm zurück, zumindest was die Lautstärke betrifft. Der Lüfter des 1133 MHz Pentium 3 Mobile Prozessors meldet sich nur selten zu Wort, und auch dann ist er beinahe nicht hörbar. Er-

Das neue Thinkpad R31 von IBM hält fern der Steckdose 140 Minuten durch.

freulich ist auch die gute Qualität des 14,1-Zoll-Displays, an dem die Arbeit Freude macht. Das größte Manko des **R31** ist der mit 128 MByte zu knapp bemessene Hauptspeicher. Bei einem Preis von über 2700 Euro hätten es 256 MByte RAM ruhig sein dürfen. Wie gewohnt setzt IBM auf einen Mousestick als Mausersatz. Hat man sich erst daran gewöhnt, lässt sich der Cursor präzise an die angepeilte Stelle führen. Als ausgesprochen flink entpuppte sich im Test das DVD-Laufwerk. Einige Konkurrenten bieten in diesen Preisregionen allerdings ein DVD/CD-RW-Kombilaufwerk an, das aufgrund seiner Brennfunktion einen größeren Nutzwert gehabt hätte. st

FAZIT Das R31 von IBM ist ein gutes, allerdings nicht ganz preiswertes Notebook. Der Hauptspeicher ist mit 128 MByte etwas knapp bemessen, zumal der Grafikchip 8 MByte für sich beansprucht. Mit 140 Minten ist die Akkulaufzeit ausgezeichnet. Ein weiteres Plus ist der sehr leise Prozessorlüfter.

QUICK INFO

IBM
Tel. (01805) 42 64 52
www.ibm.de
Preis: 2760 Euro

PCgo! 9/2002 gut

PCgo! 9/2002

70 Punkte

⊕ gute Verarbeitung, leise, lange Akkulaufzeit

⊖ zu wenig Speicher, teuer

Figure 14.4: *Article 4: PC Go!, September 2002.*

Andreas Stiller

Prozessorgeflüster

Von Fluten, Flauten und FLOPS

Pleitewelle und Arbeitslosenschwemme hier, Flutwelle da – die Hiobsmeldungen reißen nicht ab. Aber das Leben geht weiter, neue Prozessoren braucht das Land und so legen Intel, AMD, IBM und Motorola zum Herbst hin wieder kräftig los.

Immerhin, das Jahrhunderthochwasser konnte den Milliarden Euro schweren Chip-Fabriken im sächsischen Silicon Valley nichts anhaben, denn die liegen hoch genug über der Elbe. Mit AMDs Fab 30 wäre ansonsten wohl der ganze Konzern und damit auch die Hightech-Zukunft des Freistaates abgesoffen. Doch auch ohne Flut steht der Hightech-Industrie in Deutschland das Wasser schon bis zum Hals, von dem erhofften Aufschwung ist einfach nichts zu sehen. Der Zentralverband der Elektro- und Elektronikindustrie (ZVEI) ist pessimistisch wie nie, rechnet mit einem Umsatzminus des Gesamtjahres von wenigstens vier Prozent und befürchtet in Deutschlands zweitgrößtem Industriezweig einen weiteren Rückgang der Arbeitsplätze. Der betrug allein schon in den drei Monaten von April bis Juni 2002 fast 5 Prozent.

Der Konjunkturflaute trotzend, starten die Prozessorhersteller (sei es Intel, AMD oder Motorola) unverdrossen ihre Herbstoffensive. Alle kommen jetzt mit kräftig beschleunigten Prozessoren, die alle gegenüber dem Jahresanfang einen um rund 25 Prozent höheren Takt aufweisen – wobei Intel und AMD in der Zwischenzeit schon den ein oder anderen 'Speed Grade' eingeschoben haben. Und die Preise der bisherigen Spitzenreiter werden wieder drastisch gesenkt, bei Intel gar bis über 60 Prozent (S. 24).

Von Motorola war eigentlich nicht nur ein schnellerer MPC7455, sondern gleich der MPC7470 erwartet worden, mit einem neuen DDR-Systembus. Doch zunächst bleibt es im neuen G4-Mac (siehe S. 40) beim alten, jetzt immerhin auf 167 MHz beschleunigten MPX-Bus. Doch auch damit bleibt der Bus um den Faktor drei hinter dem des Pentium 4 zurück.

Neuen Schwung in die PowerPC-Szene könnte mal wieder IBM bringen. Mit einer kurzen Notiz als Vorankündigung für das alljährliche Microprocessor Forum, sorgte IBMs Chefarchitekt Peter Sandon für allerhand Aufsehen, denn die Prozessorentwickler wollen Mitte Oktober in San José eine 64-bittige Power4-Version mit SIMD-Einheit für Desktops vorstellen. Für was für Desktops? – Apple-Macs oder was Eigenes? Und was für eine SIMD-Einheit – AltiVec oder was eigenes? (Schließlich hat Motorola bei dem neuen e500-Kern für Embedded auch eine neue SIMD-Einheit kreiert.) Fragen über Fragen, die Peter Sandon partout nicht vor der Zeit beantworten wollte.

Damit bekommt die Diskussion, ob 64 Bit für Desktops überhaupt von Nutzen sind, wieder neue Nahrung. Einst hatte DEC mit dem Alpha 21164PC über Vertriebswege wie Vobis versucht, in diesem Marksegment Fuß zu fassen – vergeblich. AMD will im Spätherbst mit der 64-Bit-Offensive beginnen und nun kommt auch noch IBM. Intel sieht hingegen nach Worten des Chief Technology Officers Pat Gelsinger in den nächsten Jahren dafür keinen Bedarf (hat aber für alle Fälle was in petto).

Supercomputer für jedermann

Mit ihrem aktuellen Power4, zu acht in teure Multi-Chip-Module gepackt und davon dann vier Stück in eServer p690 ('Regatta') eingebaut, erobert IBM derzeit ein Rechenzentrum nach dem anderen. Nach dem Hochleistungsrechner Nord (mit 24 Regatta-Systemen verteilt auf die zwei Standorte Hannover und Berlin) soll Deutschlands schnellster Supercomputer nun mit 37 Regatten und einer theoretischen Höchstleistung von 5,8 Billionen Gleitkommaoperationen pro Sekunde (5,8 TFLOPS) Mitte nächsten Jahres beim Forschungszentrum Jülich seinen Betrieb aufnehmen.

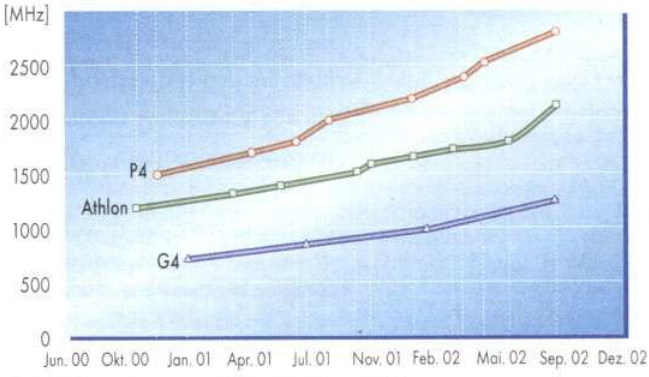
Was den Rechenzentren wert ist, ist den Gamern billig. Schließlich haben sich IBM, Sony und Toshiba schon vor einiger Zeit zusammengerauft, um einen 'Supercomputer on a Chip' mit Codenamen Cell zu kreieren, der auch die Playstation 3 antreiben soll. Wundersame Dinge sind über Cell zu vernehmen, Sony-Chef Okamota sprach gar von einer Vertausendfachung der Performance gegenüber der Playstation 2. Damit meint er vermutlich das Konzept des verteilten Rechnens, sowohl lokal in einem Zellhaufen als auch im Netz per Grid-Computing. Cell soll bis zu 16 Prozessorkerne mit einer Gesamtrechenleistung von 1 TFLOPS und diverse Controller für Breitband-Kommunikation an Bord haben. Um rechtzeitig Grid-taugliche Spiele-Software anbieten zu können, ist IBM dabei, kleine darauf spezialisierte Firmen (etwa das Startup butterfly.net) als Partner zu gewinnen. Und Sony macht dieser Tage die Playstation 2 onlinefähig (zunächst in den USA) und will wohl auch schon verteiltes Spielen und Rechnen erproben.

Rund 400 Millionen Dollar steckt das Triumvirat in das Cell-Projekt. Wie jetzt aus Austin, Texas, verlautete, ist das Design des Chips fertig, der Tape out steht bevor und man erwartet in einigen Wochen das erste Testsilizium (gefertigt wahrscheinlich schon im 100- oder 90-nm-Prozess). Doch es wird noch bis 2004/2005 dauern bis Cell wirklich spruchreif sein wird.

Gestrecktes Silizium

Weit früher, nämlich in der zweiten Jahreshälfte 2003, will Intel mit in einem 90-nm-Prozess gefertigten Prozessoren (Prescott) auf den Markt. Bereits zur diesjährigen CeBIT konnte Intels Fertigungsriege mit SRAMs in 90-nm-Design auftrumpfen, doch erst jetzt gab das Chiphaus interessante Details zu dem Herstellungsprozess bekannt. Die wichtigste Neuerung ist eine Technik, das Silizium ein wenig zu strecken ('strained silicon'). Schon ein Prozent Streckung reicht, damit die Ladungsträger um bis zu 70 Prozent besser fließen, was wiederum die möglichen Arbeitsfrequenzen um bis zu 30 Prozent erhöht.

Dieses Verfahren wurde bereits im vorigem Jahr von IBM lautstark 'verkündet', doch Intel verweist darauf, dass die Grundlagen schon vor zehn Jahren an der Universität Stanford entwickelt wurden und Intel darauf aufbauend eine eigenständige Strecktechnik entwickelt habe. Ob als 'Streckbank' wie bei IBM ein zusätzliche Si-Ge-Schicht unterlegt wurde, wollte Intel-Fellow Mark Bohr noch nicht verraten. Allerdings hat der neue P1262-Prozess einen Layer mehr … Die effektive Gate-Länge beim neuen Prozess beträgt nur 50 nm; das Gate-Dielektrikum (SiO_2) ist gar mit 1,2 nm nur noch fünf Atomlagen dick. Zusätzliche Techniken, wie SOI oder 'Body Bias' , die unter anderem die hohen Leckströme verringern, sind im 90-nm-Prozess noch nicht vorgesehen. (as)



Aufwärts gehts … zumindest bei den Taktfrequenzen.

Figure 14.5: *Article 5: c't magazin für computer technik, August 2002.*

BIS ZU 40 WATT LEISTUNG

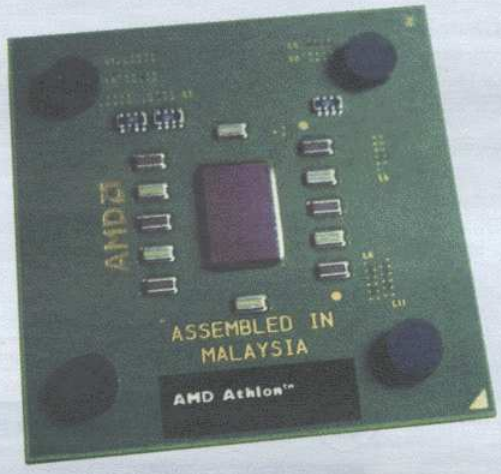
Mit dem mobilen Pentium 4 setzt Intel Maßstäbe in Sachen Rechenleistung

Bisher war so genanntes Desktop-Replacement, das Ersetzen von Schreibtisch-PCs durch ebenbürtige Notebooks, nur ein Schlagwort der Marketing-Abteilung vieler Notebook-Hersteller, um den Absatz ihrer Produkte anzukurbeln. Mit der neuen Generation von Prozessoren für den mobilen Einsatz mit bis zu 2 GHz Taktfrequenz und entsprechend leistungsfähigen Grafikchips stellen die Mobilrechner jedoch mittlerweile eine ernst zu nehmende Alternative zum Desktop-PC dar. Prinzipiell beherrscht ein Notebook alle Funktionen seines Desktop-Kontrahenten – nur eben auf viel kleinerem Raum und in tragbarer Form. Manche Komponenten wie 10/100-MBit-LAN-Adapter oder ein V.90-Modem, die ein PC-User meist nachrüsten muss, sind bei aktuellen Notebooks fast immer serienmäßig eingebaut.

Außer für besonders anspruchsvolle Grafikbearbeitung oder aufwendige 3D-Spiele eignen sich Notebooks heute für alle Anwendungen ebenso gut wie ein immobiler Desktop-Rechner. Dazu tragen auch neuartige Display-Technologien bei, die sehr hohe Luminanz- und Kontrastwerte bei akzeptabler Leistungsaufnahme ermöglichen. Dies war bisher im Mobilbereich nicht möglich. Daher musste der Notebook-Käufer stets Abstriche bei der Qualität des Displays in Kauf nehmen. Diese äußerten sich vor allem bei hellem Umgebungslicht oder bei einem leicht schrägen Blickwinkel zum Gerät. Im ersten Fall lässt sich auf dem Display kaum etwas erkennen, die zweite Variante führt zu einer starken Verfälschung der dargestellten Farben. Erste Hersteller, die neuartige, hochwertige Displays einsetzen, sind zum Beispiel Dell und Sony.

Sogar bei der Laufwerkstechnologie müssen sich Notebooks nicht mehr hinter den PCs verstecken. Festplattenkapazitäten von bis zu 60 GByte und CDRW/DVD-Combo-Laufwerke mit bis zu 16facher Brenngeschwindigkeit lassen keine Wünsche offen. Stromspartechnologien wie Intels Speedstep oder AMDs Power Now in Verbindung mit stromsparendem Arbeitsspeicher sorgen dafür, dass dem Anwender die Vorzüge ei-

Ein mobiler Athlon XP 1600+ tickt tatsächlich mit nur 1400 MHz



Athlon- und Intel-Prozessoren lassen sich nur mit einem zugedrückten Auge direkt miteinander vergleichen. Bis zur vorigen Ausgabe verwendeten wir für Notebooks andere Testverfahren, die wir wegen zu geringer Unterschiede in den Testergebnissen verschärfen mussten, weshalb Messwerte in dieser Ausgabe mit vergangenen Tests nicht vergleichbar sind. Nach altem Testverfahren erreicht ein mobiler Pentium 4/1500 einen rund 30 Prozent höheren CC Winstone 2001 als ein mobiler Athlon 1600+.

Der AMD Mobile Athlon XP 1700+ ist günstiger, allerdings auch langsamer als der Intel Pentium 4M mit 2 GHz.

Ein mobiler Athlon XP verbraucht unter Volllast den meisten Strom

Der Highpaq XI 1600 (siehe PC DIREKT 8/2002) war eines der ersten Notebooks mit mobiler Athlon-CPU von AMD. Verglichen mit der mit 1,5 GHz etwa gleich getakteten mobilen CPU von Intel im Mediabook XL 5600 (siehe PC DIREKT 7/2002) erreicht es eine Akkulaufzeit von 2:10 gegenüber 2:07 Stunden, wobei die mit 4000 mAh etwas stärker dimensionierte Batterie im Mediabook ein um ein Zoll größeres TFT-Display zu versorgen hat.

Vobis verbaut als einer der ersten Hersteller den AMD Mobile Athlon XP.

Inhalt

21 P4M-Notebooks im Test

Prozessor	Intel Pentium 4M	Intel Pentium IIIM	Intel Pentium IIIM (LV1)	Intel Pentium IIIM (ULV3)	AMD Mobile	AMD Mobile Athlon XP
Modelle	1400, 1500, 1600, 1700, 1800, 1900, 2000	866, 933, 1000, 1066, 1133, 1200	733, 750, 800, 850, 866	700, 750	1400+, 1500+, 1600+, 1700+	1000, 1100, 1200, 1500+, 1600+
Fertigungstechnik	0,13 µ	0,13 µ	0,13 µ	0,13 µ	0,13 µ	0,18 µ
Stromspar-technologie	Enhanced Speedstep	Enhanced Speedstep	Enhanced Speedstep	Enhanced Speedstep	Power Now	Power Now
FSB	400 MHz	133 MHz	100/133 MHz2	100 MHz	266 MHz	200 MHz
L2-Cache	512 KByte	512 KByte	512 KByte	512 KByte	256 KByte	256 KByte
3D-Befehlssatz	SSE-2	SSE	SSE	SSE	3D Now, SSE	3D Now, SSE
MMX-Befehlssatz	ja	ja	ja	ja	ja	ja

1) LV: Low Voltage 2) modellabhängig 3) ULV: Ultra Low Voltage

Figure 14.6: *Article 6: PC Direkt, September 2002.*

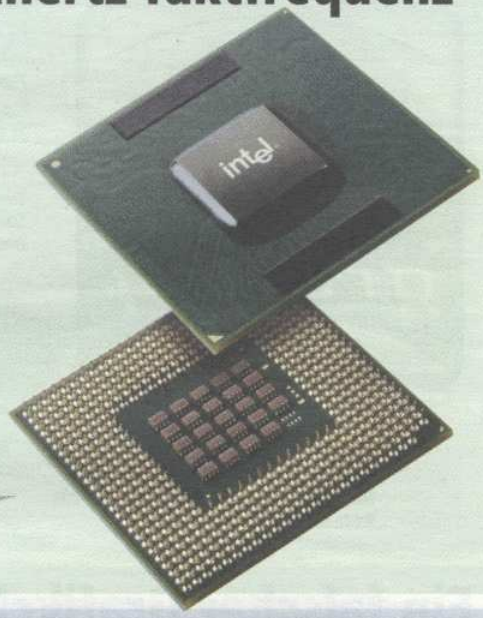
BENÖTIGT EINE MOBILE CPU

und Stromverbrauch. Da kommt AMD mit dem Mobile Athlon XP nicht heran.

Patrick Gruber/tj

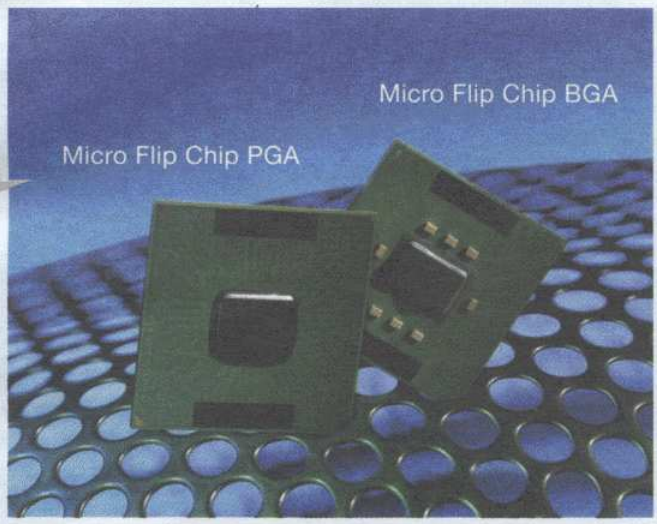
Ein mobiler Pentium 4 erreicht bis zu 2000 Megahertz Taktfrequenz

Keine einzige CPU in den Notebooks im Test dieser Ausgabe ist mit 2 GHz getaktet. Die stärksten laut eingebautem Prozessor erreichen 1800 MHz, schaffen in der Gesamtperformance aber keineswegs Bestleistungen. Verantwortlich dafür ist in der Regel eine Kombination aus geringerem Arbeitsspeicher und minderwertigem Grafikchip. Je besser die Graphics Processor Unit (GPU) vom Typ Geforce 4 oder ATI Mobility Radeon, desto mehr können PC-Anwendungen das CPU-Potenzial ausschöpfen.



Klein, aber fein: Der Intel Pentium 4M ist mit 2 GHz der stärkste Mobilprozessor der Welt.

Ein mobiler Pentium III verbraucht mit 15 Watt den geringsten Strom



Nur preisgünstig und sparsam: Die alternative Generation der Mobile-CPUs kann selbst dem Pentium IIIM in Sachen Leistungsaufnahme nicht das Wasser reichen.

nes Notebooks auch unterwegs für eine ausreichende Zeitdauer zur Verfügung stehen.

Der beste Kompromiss aus Performance und Leistungsaufnahme ist die mobile Variante des Pentium 4. Dank der Intel-eigenen Stromspartechnologie in der weiterentwickelten Variante Enhanced Speedstep und den Funktionen Deep Sleep und Deeper Sleep kommt ein Prozessor mit 1,7 GHz Taktgeschwindigkeit mit rund 10 Watt aus. Zum Vergleich: Die Desktop-Variante verbrät rund das Vierfache. Speedstep schaltet den Prozessortakt im Akkubetrieb automatisch je nach benötigter Rechenleistung herunter. Beim Pentium 4M mit 1,6 GHz geht die Taktung bei aktiviertem Speedstep im Akkubetrieb auf 1,2 GHz zurück. Deep Sleep und Deeper Sleep versetzen den Prozessor darüber hinaus in einen Tiefschlaf, wenn keine Aufgaben anstehen. Das geschieht zum Beispiel schon während der Pause zwischen zwei Tastaturanschlägen.

Eine typische Plattform des Pentium 4M ist der 845er Chipsatz aus dem Hause Intel. Dieser sorgt mit DDR-RAM-Support und 400-MHz-Frontside-Bus für überragende Performance im Notebook-Segment. Günstig sind Modelle mit Intels Flaggschiff allerdings nicht. Daher ist der Pentium 4M mit bis zu 2 GHz Taktfrequenz die richtige Wahl für Anwender, die einen tragbaren Computer für höchste Ansprüche suchen und nicht auf den Cent schauen müssen.

Basierend auf dem neuen Thoroughbred-Kern wird auch der Mobile Athlon XP ebenso wie der Intel Pentium 4M in 0,13 µ gefertigt. Die aktuell schnellste Version des Mobile Athlon XP ist der 1700+. Wie die Desktop-Varianten des Athlon XP spiegelt die Bezeichnung jedoch nicht die tatsächliche Taktfrequenz des Prozessors wider. Ein XP 1600+ beispielsweise läuft mit einer tatsächlichen Taktfrequenz von 1,4 GHz. AMD begründet diese Diskrepanz mit der so genannten Quantispeed-Architektur der Athlon-XP-Modelle. Dahinter verbirgt sich ein Paket aus Techniken wie Hardware-seitige Vorab-Datenzugriffe, die einem XP-Prozessor mit 1,4 GHz Taktfrequenz die Leistungsfähigkeit einer vergleichbaren Intel-CPU mit 1,6 GHz verleihen sollen. Daher bezeichnet AMD diesen Prozessor als 1600+. In Sachen Leistungsaufnahme liegt das AMD-Flaggschiff über dem Pentium 4M. Trotz Stromsparmodus Power Now benötigt die 1600+-Variante rund 15 Watt. Ohne Taktreduzierung liegt der Wert bei knapp über 40 Watt.

Bei den Verkaufszahlen kommt AMD allerdings im Gegensatz zum Desktop-Segment im Mobilbereich nicht annähernd an Intel heran. Der Löwenanteil der verkauften Notebooks ist mit Intel-CPUs ausgestattet. Die Prozessoren von AMD werden meist in den Budget-Modellen der großen Hersteller wie Sony oder Compaq eingesetzt. Auch viele B-Brands setzen auf die AMD-Prozessoren, um Notebooks zu attraktiven Preisen anbieten zu können.

Unschlagbar in puncto Leistungsaufnahme ist der immer noch häufig eingesetzte Pentium IIIM von Intel. Selbst die 1133-MHz-Version begnügt sich mit nur rund 15 Watt bei vollem Takt. Per Speedstep reduziert auf 733 MHz kommt er sogar mit gerade mal 5 bis 6 Watt aus.

Die zweitwichtigste Komponente in Hochleistungs-Notebooks ist der verwendete Grafikchip. Ohne ihn sehen Sie nichts – egal auf welchem TFT-Display. Mehr darüber auf den folgenden Seiten.

14.2 Appendix B - Alphabetical Vocabulary List

Numerical: 1,2 nm ('1,2 nano meter') [1], 8MByte ('8 megabyte') [1], 3D-Benchmarks ('three dimensional benchmark') [1], 3D-Befehlssatz ('three dimensional instruction set') [1], 3D Now (3D Now^{TM}) [2], 3D-Spiele ('3D games') [1], 4-Farb-Druckkopf ('4 colour print head') [1], 10/100-MBit-LAN-Adapter ('10/100 megabit local area network adapter') [1], 14,1 Zoll-Display ('14,1 inch display') [1], 15,1-Zoll-Display ('15,1 inch display') [1], 16facher Brenngeschwindigkeit ('sixteenfold burning speed') [1], 32fach-Brenner ('thirtytwofold burner') [1], 50 nm ('50 nano meters') [1], 64-bitige Power4-Version ('64 bit Power4^{TM} version') [1], 64-Bit-Offensive ('64 bit offensive') [1], 90-nm-Prozess ('90 nano meter process') [3], 90-nm-Design ('90 nano meter design') [1], 100-nm-Prozess ('100 nanometer process') [1], 100/133 MHz2 ('100/133 megahertz 2') [1], 256 MByte RAM ('256 megabyte random access memory') [1], 302(B)x112(T)x50(H) mm ('302x112x50 milimetres') [1], 400-MHZ-Frontside-Bus ('400 megahertz frontside bus') [1], 845er Chipsatz ('845 chipset') [1], 1133 MHz Pentium 3 Mobile Prozessor ('1133 megahertz Pentium 3 mobile processor') [1], 1133-MHz-Version ('1133 megahertz version') [1], 1400x1050 Bildpunkten ('1400x1050 pixels') [1], 1600+-Variante ('1600+ variant') [1], 4000 mAh ('milli-ampere-hours') [1].

A: abrufen ('to call/recall') [2], Administrator ('administrator') [5], Administrator-Rechte ('administrator authorisations') [1], Adressbereich ('address range') [1], Adressfeld ('address field') [1], Akku ('accumulator/storage battery') [1], Akkubetrieb ('battery operation') [2], Akkulaufzeit ('battery life') [3], Aktion ('action') [1], aktiv ('active') [2], aktiviertem ('activated') [1], aktuell ('actual/current') [8], akzeptable ('acceptable') [1], Alpha 21164PC ('Alpha^{TM} 21164PC') [1], alternative ('alternative') [1], Alternative ('alternative') [4], AltiVec (AltiVec^{TM}) [1], AMD (AMD^{TM} - Advanced Micro Devices Inc.) [13], AMD-Flaggschiff ('AMD^{TM} flagship') [1], AMD Mobile ('AMD^{TM} Mobile') [1], AMD Mobile Athlon XP ('AMD^{TM} Mobile Athlon^{TM} XP') [2], AMD Mobile Athlon XP 1700+ ('AMD^{TM} Mobile Athlon^{TM} XP 1700+') [1], AMD-Prozessoren ('AMD^{TM} processors') [1], analysieren ('to analyse') [1], an Board ('onboard') [1], Antiviren-Software ('antivirus software') [2], Antwort ('response') [1], antworten ('to respond') [1], Anwender ('user') [5], Anwendung ('application') [1], AppleMac (AppleMac^{TM}) [1], Arbeitsfrequenzen ('operating frequency') [1], Arbeitsoberfläche ('desktop') [1], Arbeitsgeschwindigkeit ('operating speed') [1], Arbeitsspeicher ('system memory') [2], Artikel ('article') [3], Aspekt ('aspect') [1], Asus (Asus^{TM}) [3], Athlon-CPU ('Athlon^{TM} central processing unit') [1], Athlon-Prozessoren ('Athlon^{TM} processors') [1], Athlon XP ('Athlon^{TM} XP') [2], Athlon XP 1600+ ('Athlon^{TM} XP 1600+') [2], Athlon-XP-Modelle ('Athlon^{TM} XP

models') [1], ATI (ATI^{TM}) [1], ATI Mobility Radeon ('ATI Mobility Radeon^{TM}) [1], attraktiven ('attractive') [1], Audio-CD ('audio compact disc') [2], Auflösung ('resolution') [1], Aufruf ('call/calling') [1], Auslesen ('readout') [1], Ausspionieren ('espionage') [1], Ausstattung ('layout/configuration') [1], Auswahlfelder ('multiple choice fields') [1], automatisch ('automated/automatic') [2].

B: Backup-Software ('backup software') [1], basierend ('based') [1], Basis ('base') [1], Batterie ('battery') [1], B-Brands ('B brands') [1], Bedienerführung ('operator prompting') [3], beenden ('to end/cancel/quit') [4], beginnen ('to begin/start') [1], Benchmark ('benchmark') [1], Benutzer ('user') [8], Benutzerführung ('user prompting') [3], Benutzerkonto ('user account') [5], Benutzertags ('user tags') [3], Bestleistungen ('best performance') [1], Bild ('image') [1], Bit ('bit/binary digit') [1], BJC-55 (BJC-55^{TM}) [3], BJC-85 (BJC-85^{TM}) [1], Blindread (Blindread^{TM}) [2], Blindwrite (Blindwrite^{TM}) [2], Blindwrite Suite (Blindwrite Suite^{TM}) [1], Blindwrite Suite 4.0 (Blindwrite Suite 4.0^{TM}) [2], Blickwinkel ('angle of view') [1], Body Bias (Body Bias^{TM}) [1], bootfähig ('bootable') [2], brandneuen ('brand new') [1], Breitband-Kommunikation ('broadband communication') [1], Brennfunktion ('burn function') [1], brennen ('to burn') [1], Brennen ('burning') [1], Brenner ('burner') [2], Brennprogramme ('burning program') [2], Brenn-Tool ('burning tool') [1], Browser ('browser') [8], Budget-Modellen ('budget models') [1], Buffer ('buffer') [1], Bus ('bus') [1], butterfly.net (butterfly.net^{TM}) [1], Button ('button') [1].

C: Cactus Data Shield 200 (Cactus Data Shield 200^{TM}) [2], Canon (Canon^{TM}) [3], Canon BJC-55 (Canon BJC-55^{TM}) [1], Canon BJC-55 Tintenstrahler ('Canon BJC-55^{TM} ink-jet printer') [1], Canon-Foto-Tinte ('Canon^{TM} photo ink') [1], CC Winstone 2001 (CC Winstone 2001^{TM}) [1], CD ('compact disc') [8], CD 5 ('CD 5') [1], CD-Brenner ('CD burner') [1], CD-Brenn-Software ('CD burning software') [5], CD-Formate ('CD formats') [1], CD-Kopien ('CD copies') [1], CD-Kopier-Programm ('CD copying program') [1], CD-Kopier-Tool ('CD copying tool') [1], CD-ROM ('Compact Disk Read-Only Memory') [2], CDRW/DVD-Combo-Laufwerke ('Compact Disk ReWritable/Digital Versatile Disk combined drive') [1], CDR-Win (CDR-Win^{TM}) [1], CD-Symbolen ('CD characters/icons') [1], CeBIT (CeBIT^{TM}) [1], Cell (Cell^{TM}) [4], Cell-Projekt ('Cell^{TM} project') [1], Chief Technology Officer ('chief technology officer') [1], Chip ('chip') [1], Chip-Fabriken ('chip factories') [1], Chip-Haus ('chip house') [1], Clone-CD (Clone-CD^{TM}) [4], Clone-CD 4 (Clone-CD 4^{TM}) [6], Code ('code') [1], Codename ('code name') [1], Compaq (Compaq^{TM}) [1], Computer ('computer') [27], Computerbild ('computer image') [1], Computer-Netzwerken ('computer networks') [1], Computer-Programm ('computer pro-

gram') [1], Computer-Technik ('computer technology') [1], Computer-Virus ('computer virus') [1], connect ('connect') [1], Controller ('controller') [1], CPU ('CPU - central processing unit') [3], CPU-Potenzial ('CPU-potential') [1], C-Serie ('C series') [1], Cursor ('cursor') [1].

D: Dateiname ('file name') [2], Dateien ('files') [1], Daten ('data') [6], Datenbank ('database') [2], Daten-CD ('data CD') [1], Datenkomprimierungs-Programm ('data compression program') [1], Datennetz ('data network') [1], Datenpirat ('data pirate') [1], Daten Tracks ('data tracks') [1], Datenträger ('data carrier') [1], Datenübertragung ('data exchange') [1], Davideo CD-Brenner ('Davideo^{TM} CD burner') [5], Davideo CD-Brenner 5.5.6 ('Davideo^{TM} CD burner 5.5.6') [2], DDR-RAM-Support ('double data rate random access meemory support') [1], DDR-Systembus ('double data rate system bus') [1], deaktivieren ('deactivate') [1], DEC ('digital entertainment centre') [1], Deep Sleep (Deep Sleep^{TM}) [2], Deeper Sleep (Deeper Sleep^{TM}) [2], defekt ('defective') [2], Definition ('definition') [1], Dell (Dell^{TM}) [1], Design ('design') [1], Desktop ('Windows^{TM} desktop/ desktop computer') [5], Desktop-Kontrahenten ('desktop rivals') [1], Desktop-PC ('desktop personal computer') [1], Desktop-Rechner ('desktop computer') [1], Desktop-Replacement ('desktop replacement') [1], Desktop-Segment ('desktop segment/overlay') [1], Desktopvariante ('desktop variant') [1], Desktop-Variante ('desktop variant') [2], Dialogfenster ('dialog window') [1], Diener ('server') [1], Dienstleistungen ('service') [1], dimensionierte ('dimensioned') [1], direkt ('direct') [4], Disketten ('floppy disks') [2], Diskussion ('discussion') [1], Diskrepanz ('discrepancy') [1], Display ('display') [4], Display-Technologien ('display technology') [1], Distribution ('distribution') [1], diverse ('diverse') [1], Dokument ('document') [2], Download ('download') [2], drastisch ('drastic') [1], Drucker ('printer') [2], Druckgeschwindigkeit ('printing speed') [1], Druckköpf ('print head') [1], Druckmedien ('print media') [1], Druckqualität ('print quality') [2], DVD-CDRW-Kombilaufwerk ('Digital Versatile Disk Compact Disk ReWritable combined drive') [2], DVD-Laufwerk ('Digital Versatile Disk drive') [1].

E: effektive ('effective') [1], eigenständig ('stand-alone') [1], Einlesen ('readin') [1], Einschalten ('activation') [1], Einstellungen ('settings') [4], Einstellungen-Profile ('settings profile') [1], Einzelblatteinzug ('single-sheet feeder') [3], Einzelnetzwerken ('separate networks') [1], einzubinden ('to link') [1], Elaborate Bytes ('elaborate bytes') [1], elektronischer Post ('electronic post') [1], Elektroindustrie ('electric indusry') [1], Elektronikindustrie ('electronic industry') [1], E-Mail ('e-mail') [1], entpacken ('to unpack') [2], Embedded ('embedded') [1], Enhanced Speedstep ('enhanced Speedstep^{TM}') [5], Entwicklern ('developers') [1], Entwicklungs-Suite ('development suite') [1], Eröffender Tag ('open-

ing tag') [1], eServer ('eServer') [1], exakte ('exact') [1], externe ('external') [4], Externe Browser ('external browser') [1], extrahieren ('to extract') [1], e500-Kern ('e500 kernel') [1].

F: Fab 30 (Fab 30^{TM}) [1], Faktor ('factor') [1], Farbtintenstrahldrucker ('colour ink-jet printer') [1], Fehler ('error/failure') [1], Feldern ('fields/arrays/items/panels/cells') [1], Fenster ('window') [3], Fernsteuer-Software ('remote control software') [1], Fertigungstechnik ('maufacturing/production technology') [1], Festplattenkapazität ('hard disc capacity') [1], Figur ('figure') [1], Filme ('films') [1], Firewall ('firewall') [4], Firewire-Anschlüsse ('firewire port/connection') [1], Flaggschiff ('flagship') [1], Flop ('flop') [1], FLOPS ('floating point operations per second') [1], Form ('form') [2], Foto ('photo') [1], Fotodruckkopf ('photo print head') [1], Fotopapier ('photo paper') [1], FP-Win Anti-Virus 3.0 (FP-Win Anti-Virus 3.0^{TM}) [1], Freischaltcode ('PIN - personal identification number') [2], FSB ('front side bus') [1], Funktionen ('functions') [5], funktionieren ('to function') [2], Funktionsumfang ('range of function') [2], Fußball ('football') [1].

G: Gamern ('gamers/gaming') [1], Gast-Betreibssysteme ('guest operating system') [1], Gate-Dielektrikum ('gate dielectric medium') [1], Gate-Länge ('gate length') [1], GByte ('gigabyte') [1], G-Data ('G-Data') [1], GHz ('gigahertz') [13], Geforce 4 (Geforce 4^{TM}) [1], Generation ('generation') [2], generieren ('to generate') [1], Gerät ('device') [3], Gesamtperformance ('overall performance') [1], gestalten ('to design') [2], gestrecktes Silizium ('stretched silicon') [1], Gleitkommaoperationen pro Sekunde ('floating point operation per second') [1], Gnome ('gnomes') [1], GPU ('graphics processing unit') [1], Grafik ('graphic') [2], Grafikbearbeitung ('graphics editing') [1], Grafikchip ('graphics chip') [4], Grafikchipsätze ('graphics chipsets') [1], Graphics Processor Unit ('graphics processor unit') [1], Grid-Computing ('grid computing') [1], Grid-taugliche ('grid suitable/complient') [1], Grundausstattung ('basic configuration') [2], G4-Mac (G4-Mac^{TM}) [1].

H: Haken ('hook') [1], Handbuch ('handbook/manual') [1], Hardware ('hardware') [3], Hardware-Ausstattung ('hardware configuration') [1], Hardware-seitige ('hardware-curre nt') [1], Hauptspeicher ('central/main memory') [2], Heft-CD ('magazine CD') [4], Heft-CD-ROM ('magazine compact disc read only memory') [1], Herstellungsprozess ('manufacturing process') [1], herunterschalten ('to close/shut down') [1], Highpaq XI 1600 (Highpaq XI 1600^{TM}) [1], Hightech-Industrie ('hightech industry') [1], Hightech-Zunkunft ('hightech future') [1], Hinzufügen ('attach') [2], HTML-Dokument ('hypertext markup language document') [1], HTML-Editor ('hypertext markup language editor') [1], Hochleis-

tung (‘high-performance’) [1], Hochleistungsrechner (‘high-performance computer’) [1], Hochleistungs-Notebook (‘high-performance notebook’) [1], Home (‘home’) [1], Homepage (‘homepage’) [1], horizontal (‘horizontal’) [1], Total: 29

I: IBM (IBM^{TM}) [13], IBM Thinkpad R31 (IBM Thinkpad R31^{TM}) [1], Icons (‘icons’) [1], ideal (‘ideal’) [1], ingnorieren (‘to ignore’) [1], Images (‘images’) [1], immobile (‘immobile’) [1], Import-Funktionen (‘import functions’) [1], Industriezweig (‘sector of industry’) [1], Info (‘information’) [3], Informationen (‘informations’) [3], informieren (‘to inform’) [1], Infrarotschnittstelle (‘infrared interface’) [1], inklusive (‘inclusive’) [1], instabil (‘instable’) [1], installieren (‘to install/set up’) [4], Installation (‘installation/setup’) [6], Installationsroutine (‘setup/installation routine’) [1], InstallShield-Wizzard (‘InstallShield ^{TM}-Wizzard’) [1], Intel (Intel^{TM}) [17], Intel-CPU (‘Intel^{TM} central processing unit’) [2], Intel-eigenen (‘Intel^{TM} own’) [1], Intel-Fellow (‘Intel^{TM} fellow’) [1], Intel-Pentium 4M (Intel-Pentium 4M^{TM}) [3], Intel-Pentium IIIM (Intel-Pentium IIIM^{TM}) [1], Intel-Pentium IIIM (LV1) (Intel-Pentium IIIM (LV1)^{TM}) [1], Intel-Pentium IIIM (ULV3) (Intel-Pentium IIIM (ULV3)^{TM}) [1], Intel-Prozessoren (‘Intel^{TM} processors’) [1], interessant (‘interesting’) [2], Internet (‘Internet’) [10], Internet-Anzeigeprogramme (‘Internet display program’) [1], Internet Explorer (Internet Explorer^{TM}) [5], Internet-Film-Brenner (‘Internet film burner’) [1], Internet-Programm (‘Internet program’) [1], Internet-Protokoll (‘Internet protocol’) [4], IP (‘Internet protocol’) [1], IP-Adresse (‘Internet protocol address’) [5], Internet-Seite (‘Internet pages/web pages’) [2], Internet-Verbindung (‘Internet connection’) [2], ISO-Images (‘ISO/International Organisation for Standardisation images’) [1].

K: KByte (‘kilobyte’) [6], Kennwort (‘call word/code word/keyword/password’) [2], Key2audio (Key2audio^{TM}) [2], Kilogramm (‘kilogramme’) [2], Klick (‘click’) [5], klicken (‘to click’) [9], Kombination (‘combination’) [2], Komfort (‘comfort/convenience’) [1], Kompendium (‘compendium’) [1], komplette (‘complete’) [4], Komponenten (‘components’) [2], komprimiern (‘to compress/zip’) [1], Komprimierungsverfahren (‘compression proceedure’) [1], Kompromiss (‘compromise’) [1], konfigurieren (‘to configure’) [1], Konkurrenz (‘contention’) [1], Kontext-Menü (‘object menu’) [3], Kontrastwerte (‘contrast value’) [1], Konzept (‘concept’) [1], Konzern (‘concern’) [1], Kopie (‘copy’) [1], Kopieren (‘copying/duplication’) [1], Kopier-Neulinge (‘copy beginners’) [1], Kopiergesch ützte CDs (‘copy protected compact discs’) [1], Kopierschutz (‘copy protection’) [4], Kopierschutzmechanismen (‘copy protection mechanisms’) [2], Kopier-Tools (‘copy tools’) [1], Kopiervorgang (‘copying process’) [1], korrigieren (‘to correct’) [1], kreieren (‘to create’) [2], Kurztest (‘short test’) [1].

L: L2-Cache ('L2 cache') [1], L3800S (L3800S') [3], Ladungsträger ('charge carrier') [1], laufen ('to run') [4], Laufwerke ('drives') [1], Laufwerktechnologie ('drive technology')[1], Layer ('layer') [1], Leckströme ('leakage currents') [1], Leistungsaufnahme ('power input') [5], Leistungsfähig ('performance') [1], Leistungsfähigkeit ('capability/performance') [1], Leistungsspektrum ('performance spectrum') [1], Lesefehler ('read error') [1], Lesetempo ('reading tempo') [1], Lesevorgang ('reading process') [2], Link ('link') [2], Linux (Linux ^{TM}) [1], Linux-System ('Linux^{TM} system') [1], Linux Software ('Linux^{TM} software') [1], Liste ('list/register') [1], Lite-On (Lite-On^{TM}) [1], Lithium-Ionen-Akku ('lithium ion battery') [1], lokal ('local') [1], Löwenanteil ('lion's share') [1], Lücke ('gap') [1], Lüfter ('blower/fan') [2], Luminanz ('luminance') [1].

M: Marketing-Abteilung ('marketing department') [1], Mausersatz ('mouse replacement') [1], Mausklick ('mouse click') [4], Maustaste ('mouse key/button') [2], MByte ('megabyte') [2], McAfee Desktop Firewall 7.5 (McAfee Desktop Firewall 7.5^{TM}) [1], Mediabook ('mediabook') [1], Mediabook XL 5600 (Mediabook XL 5600^{TM}) [1], Megahertz ('megahertz') [1], Menü ('menu') [3], Menüleiste ('menu bar') [2], Menüname ('menu name') [1], Menüpunkt ('menu level') [4], MHz ('megahertz') [9], Microprocessor Forum ('microprocessor newsgroup') [1], Microsoft (Microsoft^{TM}) [2], MMX-Befehlssatz ('MMX command sentence') [1], Mobilbereich ('mobile sector') [2], mobile ('mobile') [12], Mobile Athlon XP (Mobile Athlon XP^{TM}) [3], Mobile-CPU ('mobile CPU/central processing unit') [1], Mobile-Prozessor ('mobile processor') [2], Mobility Radeon M7 (Mobility Radeon M7') [1], Mobilrechner ('mobile computer') [1], Modelle ('models') [2], Modul ('module') [3], Motorola (Motorola^{TM}) [4], Mousestick ('mousestick') [1], MPC7455 (MPC7455^{TM}) [1], MPC7470 (MPC7470^{TM}) [1], MPX-Bus ('MPX bus') [1], MP3-Encoder ('MP3 encoder') [2], Multi-Chip-Module ('multi chip module') [1], Multimedia-CD ('multimedia CD') [1], Musikdateien ('music files') [1].

N: Namen ('names') [1], Nero Burning ROM ('Nero^{TM} burning read only memory') [1], Netscape (Netscape^{TM}) [1], Newtech Infosystems (Newtech Infosystems^{TM}) [1], Netz ('net/network/web/Internet') [1], Netzteil ('power supply unit') [2], Netzwerk ('network') [16], Netzwerk-Computer ('networkcomputer') [3], Netzwerkeinstellungen ('network settings') [1], Netzwerk-Kurs ('network course') [3], Netzwerk-Programme ('network program') [1], Nord (Nord^{TM}) [1], Normalpapier ('standard paper') [1], Notebook ('notebook') [17], Notebook-CPU ('notebook CPU/cental processing unit') [1], Notebook-Hersteller ('notebook manufacturer') [1], Notebook-Käufer ('notebook customer') [1], Notebook-Segment ('notebook overlay/segment') [1], NTI CD-Maker ('NTI^{TM} CD-Maker')

[1], Nutzen (‘utility’) [1], Nutzwert (‘utility value’) [1].

O: Office (‘office’) [1], offline (‘offline’) [1], Offline-Version (‘offline version’) [1], Öffnung (‘opening/nozzle/port’) [1], OK (‘OK’) [3], online (‘online’) [3], onlinefähig (‘online’) [1], Online-Handbuch (‘online handbook/manual’) [1], Opera (Opera^{TM}) [1], optimal (‘optimal’) [1], optional (‘optional’) [3], Optionen (‘options’) [4], Ordner (‘folder’) [1], Overheadfolien (‘overhead slides’) [1].

P: P1262-Prozess (‘P1262 process’) [1], P4M-Notebook (‘P4M notebook’) [4], packen (‘to pack/compress’) [1], Pack-Programm (‘packer’) [1], Paket (‘packet/package’) [2], Paketmanager (‘package manager’) [1], parallele (‘parallel’) [1], Partitionierer (‘partitioner’) [1], Partner (‘partner’) [1], Passwort-Tools (‘password tools’) [1], PC (‘PC/personal computer’) [3], PC-Anwendungen (‘PC applications’) [1], PC DIREKT (PC DIREKT^{TM}) [2], PCMCIA-Anschlüsse (‘PCMCIA/personal computer memory card interface adapter port ’) [1], PC-Simulator (‘PC simulator’) [2], PC-User (‘PC user’) [1], Pentium III (Pentium III^{TM}) [1], Pentium IIIM (Pentium IIIM^{TM}) [2], Pentium 4 (^{TM}Pentium 4^{TM}) [6], Pentium 4M (Pentium 4M^{TM}) [4], Pentium 4/1500 (Pentium 4/1500^{TM}) [1], perfekt (‘perfect’) [1], Performance (‘performance’) [3], Personen (‘people’) [1], pessimistisch (‘pessimistic’) [1], Pfad (‘path’) [4], Plattform (‘platform’) [1], Playstation 2 (Playstation 2^{TM}) [2], Playstation 3 (Playstation 3^{TM}) [1], Plus (‘plus’) [1], Port (‘port’) [23], Port 14 (‘port 14’) [1], portable (‘portable’) [2], Portabler Tintenstrahldrucker (‘portable ink-jet printer’) [1], Port-Scanner (‘port scanner’) [8], Power Now (Power Now^{TM}) [4], PowerPC-Szene (‘power PC scene’) [1], Power 4 (Power 4^{TM}) [1], präsentieren (‘to present’) [1], Praxis (‘practice’) [2], präzise (‘precise’) [1], Preis (‘price’) [5], Preis-Leistungs-Verhältnis (‘price-performance ratio’) [1], Preisregion (‘price region’) [1], preiswerte (‘unexpensive’) [1], Prescott (Prescott^{TM}) [1], prinzipiell (‘on pinciple’) [1], privaten (‘private’) [1], Problem (‘problem’) [2], promblematisch (‘poblematic’) [1], problemlos (‘problemless’) [1], Produkte (‘products’) [1], Professional-Version (‘professional version’) [1], Profis (‘professionals’) [1], Programm (‘program’) [30], Programmdateien (‘program files’) [1], Programmelement (‘program element’) [1], Programm-Fenster (‘program window’) [1], Programm-Start (‘program start’) [1], Projektmanager-Funktionen (‘project manager functions’) [1], Prozent (‘percent’) [5], Prozess (‘process’) [1], Prozessor (‘processor’) [11], Prozessorentwickler (‘processor developer’) [1], Prozessorgeflüster (‘processor whispers/noise’) [2], Prozessorhersteller (‘processor manufacturer’) [1], Prozessorkerne (‘processor core’) [1], Prozessorlüfter (‘processor fan’) [2], Prozessor-Takt (‘processor clock/meter’) [1].

Q: Qualität ('quality') [2], Quantispeed-Architektur ('quantispeed architechture') [1], Quell-CD ('source CD') [4], quittieren ('to aknowledge') [1].

R: R31 ('R31') [2], Raw-DAO-Modus ('raw DAO mode') [1], Rechenleistung ('computing performance') [2], Rechenzentrum ('computing centre') [2], Red Hat Linux 7.3 ('Red Hat Linux 7.3') [1], Red Hat Linux 7.3 Professional ('Red Hat Linux 7.3 Professional') [1], reduzieren ('to reduce') [2], Regatta (Regatta^{TM}) [2], Regatta-Systemen ('Regatta^{TM} systems') [1], Risiko ('risk') [1].

S: Safedisc (Safedisc^{TM}) [4], Scan ('scan') [1], Scankopf ('scanning head') [1], scannen ('to scan') [1], Schädlings-programm ('parasite program') [1], Schaltflächen ('button/box') [1], Schema-Unterstützung ('schema support') [1], Schreibvorgang ('writing process') [1], Schließender Tag ('closing tag') [1], Schnittstelle ('interface') [2], Schreibtempo ('writing tempo') [1], SchreibtischPC ('desk PC') [1], Schutz ('protection') [1], schützen ('to protect/save') [2], Schwachstellen ('flaws') [2], Schwarz-Druckkopf ('black print head') [1], Sektoren ('sectors') [2], Seiten ('pages/web pages') [2], Seitenvorschau ('page preview') [1], SelfHTML (SelfHTML^{TM}) [5], SelfHTML Handbuch ('SelfHTML^{TM} handbook') [1], SelfHTML Homepage ('SelfHTML^{TM} homepage') [1], senden ('to send') [1], serielle ('serial') [1], serienmäßig ('in series') [1], Server ('server') [3], Shareware ('shareware') [2], Si-Ge-Schicht (' SiGe coating/layer') [1], Sicherheit ('security') [1], Sicherheitshinweis ('security hints') [1], Sicherheitskopie ('security copy') [1], Sicherheits-Kopien ('security copies') [1], Sicherheitslücken ('security gaps') [5], Sicherheitsprüfung ('security check') [1], Sicherheits-Software ('security check') [1], Sicherheitsüberprüfung ('security check') [1], sichern ('to protect/back up/save') [3], Silicon Valley ('Silicon Valley') [1], SIMD-Einheit ('SIMD (Single Instruction Multiple Data) unit') [3], Software ('software') [10], SOI ('SOI') [1], Sony (Sony^{TM}) [4], Sony-Chef ('Sony^{TM} boss') [1], Speed Grade (Speed Grade^{TM}) [1], Speedstep (Speedstep^{TM}) [4], speichern ('to record/store') [8], Speicherplatz ('memory space') [1], spezialisierte ('specialised') [1], spezielle ('special') [3], Spiele ('(computer) games') [1], Spiele-CD ('(computer) games CD') [1], Spiele-Software ('games software') [1], SRAMs ('synchronous dynamic random access memories') [1], SSE-2 ('Streaming SIMD Extension 2') [1], SSE ('Streaming SIMD Extension') [5], Standardausrüstung ('standard equipment') [1], standardisierte ('standardised') [1], standardmäßig ('standard') [1], Stapeleinzug ('batch feeder') [1], Start ('start') [2], Start Address ('starting address') [2], starten ('to start/activate') [9], Startmenü ('start menu') [1], Startseite ('home/start page') [1], Startup ('startup') [1], Steckdose ('outlet box') [1], Stellfläche ('footprint') [1], Stop Address ('stopping address') [2], Stopping Scan ('stopping scan') [1], strained silicon ('strained silicon') [1], Streckbank ('rack')

[1], Strecktechnik (‘straining technology’) [1], stromsparendem (‘power/energy saving’) [1], Stromsparmodus (‘power-down mode’) [1], Stromspartechnologien (‘power/energy saving technology’) [3], strukturieren (‘to structure’) [1], Subchannel (‘subchannel’) [1], Subnetz (‘subnet’) [3], Such-Tool (‘search tool’) [1], Supercomputer (‘supercomputer’) [2], Supercomputer on a Chip (‘supercomputer on a chip’) [1], SuperHTML 5.0 (SuperHTML 5.0^{TM}) [3], SuperHTML (SuperHTML^{TM}) [7], S-Video-Ausgang (‘S-video outlet’) [1], Symbol (‘symbol’) [4], System (‘system’) [1], Systemoptimierung (‘system tuning/opyimisation’) [1].

T: Tag (‘tag’) [4], Takt (‘clock/pulse/meter’) [2], takten (‘to synchronise’) [2], Taktfrequenz (‘clock frequency’) [7], Taktgeschwindigkeit (‘clock speed’) [1], Taktreduzierung (‘clock reduction’) [1], Taktung (‘clocking’) [1], Tagname (‘tag name’) [1], Tape (‘tape’) [1], Taskmanager (‘taskmanager’) [1], Tastaturanschlägen (‘keyboard stroke’) [1], Technik (‘engineering/technology’) [3], Technologien (‘technologies’) [1], Test (‘test’) [9], Testcenter (‘test centre’) [2], testen (‘to test’) [5], Testergebnissen (‘test results’) [1], Testnachricht (‘test message’) [1], Testsilizium (‘test silicon’) [1], Testurteil (‘test execution’) [3], Testverfahren (‘test method’) [2], Testversion (‘test version’) [1], Text (‘text’) [2], Textseite (‘text page’) [1], ticken (‘to tick’) [1], TFLOPS (‘’trillion floating point operations per second”) [2], TFT-Display (‘thin-film transistor display’) [3], Thinkpad-Familie (‘Thinkpad^{TM} family’) [1], Thinkpad R31 (Thinkpad R31^{TM}) [1], Thoroughbred-Kern (‘thoroughbred core’) [1], Tiefschlaf (‘deep sleep’) [1], Tintenstrahldrucker BJC-55 (‘ink-jet printer BJC-55’) [1], Titel (‘title’) [2], Tool (‘tool’) [4], Toshiba (Toshiba^{TM}) [1], tragbaren Computer (‘portable computer’) [1], Treiber (‘driver’) [1], Triumvirat (Triumvirat^{TM}) [1], Typ (‘type’) [1].

U: übernehmen (‘accept’) [5], überprüfen (‘to review/revise/inspect’) [4], Überprüfung (‘inspection’) [2], Überprüfungsprogramm (‘inspection program’) [1], überspringen (‘to leap/skip’) [1], Überwachungs-Tool (‘monitor/watchdog program’) [1], UDF-Treiber (‘UDF /Universal Disc Format drive’) [2], Umbenennen (‘renaming’) [1], Umgebungslicht (‘ambient light’) [1], Underruns (‘underruns’) [1], Universität (‘university’) [1], Update (‘update’) [2], USB-Anschlüsse (‘USB/Universal Serial Bus connection’) [1], USBschnittstelle (‘USB/Universal Serial Bus interface’) [1],

V: V9.0-Modem (‘V9.0 modem’) [1], Variante (‘variant’) [3], verschlüsselt (‘encode’) [1], Verschlüsselung (‘encoding/encrytion’) [1], Version (‘version’) [5], Versionsnummer 5 (‘version number 5’) [1], verteilte Rechen (‘distributed computing’) [2], verteiltes Spielen (‘distributed playing’) [1], Video-CD (‘video CD’) [1], Videodateien (‘video files’)

[1], Virus (‘virus’) [3], Viren-Attacken (‘virus attacks’) [1], Viren-Scanner (‘virus scanner’) [2], Vobis (‘Vobis’) [2], Vollausstattung (‘maximum configuration’) [1], Vollversion (‘full/complete version’)[1], Vorab-Datenzugriffe (‘pre-data access’) [1], Vorschau (‘preview’) [1], VSO-Software (‘VSO^{TM}-Software’) [1].

W: Watt (‘watt’) [7], Website (‘website’) [1], Webseite (‘website’) [2], Weiter (‘forward’) [1], Werkzeug (‘tool’) [1], Win (Win^{TM}) [1], Win4Lin (Win4Lin^{TM}) [1], Win4Lin 4.0 (Win4Lin 4.0^{TM}) [1], Windows (Windows^{TM}) [1], Windows 95 und 98 (Windows^{TM} 95 and 98) [1], Windows 95 B/98/ME, NT 4, 2000 und XP (Windows^{TM} 95 B/98/ME, NT 4, 2000 and XP) [1], Windows 95/98, NT 4, 2000 und XP (Windows^{TM} 95/98, NT 4, 2000 and XP) [1], Windows 98 SE/ME, NT4, 2000, XP (Windows^{TM} 98 SE/ME, NT4, 2000, XP) [1], Windows XP (Windows^{TM} XP) [2], Windows-XP-Computer (‘Windows^{TM} XP computer’) [1], Winzip (Winzip^{TM}) [1], Winzip-Fenster (‘Winzip^{TM} window’) [1].

X: X-Fenster (‘X window’) [1], Xmetal (Xmetal^{TM}) [1], XML (‘extensible markup language’) [1], XML-Befehl (‘extensible markup language instruction’) [1], XML-Editor (‘extensible markup language editor’) [2], XML-Syntax (‘extensible markup language syntax’) [1], XP (‘XP’) [1], XP 1600+ (‘XP 1600+’) [1], XP-Prozessor (‘XP processor’) [1].

Y: YAPS (‘YAPS^{TM}/ yet another port scanner’) [1]. Yaps (‘Yaps^{TM}/yet another port scanner’) [12], Yaps 1.0.0.26 (‘Yaps/yet another port scanner 1.0.0.26^{TM}’) [3], Yet Another Port Scanner (‘yet another port scanner’) [1].

Z: Zellhaufen (‘cell heap’) [1], ZIP (‘zip’) [2], ZIP-Datei (‘zip file’) [1], Zusatzprogramme (‘addin program’) [1].

Total Types: 758.
Total Tokens: 1457.

14.3 Appendix C - Eliminated Words

4000 mAh (‘4000 milli-ampere-hours’) [1], 302(B)x112(T)x50(H) mm (‘302x112x50 milim etres’) [1], akzeptable (‘acceptable’) [1], alternative (‘alternative’) [1], Alternative (‘alternative’) [4], Artikel (‘article’) [3], Aspekt (‘aspect’) [1], attraktiven (‘attractive’) [1], B-Brands (‘B brands’) [1], brandneuen (‘brand new’) [1], Diskussion (‘discussion’) [1], Diskrepanz (‘discrepancy’) [1], drastisch (‘drastic’) [1], Figur (‘figure’) [1], Filme (‘films’) [1], Flaggschiff (‘flagship’) [1], Flop (‘flop’) [1], Foto (‘photo’) [1], Fotopapier (‘photo paper’) [1], Fußball (‘football’) [1], ideal (‘ideal’) [1], Industriezweig (‘sector of industry’) [1], interessant (‘interesting’) [2], Kilogramm (‘kilogramme’) [2], Komfort (‘comforts/conveniences’) [1], Kompendium (‘compendium’) [1], Kompromiss (‘compromise’) [1], Konzern (‘concern’) [1], Löwenanteil (‘lion’s share’) [1], Marketing-Abteilung (‘marketing department’) [1], Namen (‘names’) [1], Normalpapier (‘standard paper’) [1], Overheadfolien (‘overhead slides’) [1], Partner (‘partner’) [1], perfekt (‘perfect’) [1], Personen (‘people’) [1], pessimistisch (‘pessimistic’) [1], Plus (‘plus’) [1], präsentieren (‘to present’) [1], Praxis (‘practice’) [2], präzise (‘precise’) [1], Preis (‘price’) [5], Preisregion (‘price region’) [1], preiswerte (‘inexpensive’) [1], prinzipiell (‘on pinciple’) [1], privaten (‘private’) [1], Problem (‘problem’) [2], promblematisch (‘problematic’) [1], problemlos (‘problemless’) [1], Produkte (‘products’) [1], Prozent (‘percent’) [5], Qualität (‘quality’) [2], reduzieren (‘to reduce’) [2], Risiko (‘risk’) [1], Titel (‘title’) [2], Umgebungslicht (‘ambient light’) [1], Universität (‘university’)[1], Watt (‘watt’) [7].

Types: 58.
Tokens: 84.

14.4 Appendix D - Division of Compounds into Constituent Parts

Numerical: 3D [3] → 3D-Benchmarks [1], 3D-Befehlssatz [1], 3D-Spiele [1].

A: Adapter [1] → 10/100-MBit-LAN-Adapter [1]. Administrator [1] → Administrator-Rechte [1]. Address [4] → Start Address [2], Stop Address [2]. Adress [7] → Adressbereich [1], Adressfeld [1], IP-Adresse [5]. Akku [6] → Akkubetrieb [2], Akkulaufzeit [3], Lithium-Ionen-Akku [1]. Alpha [1] → Alpha 21164PC [1]. AMD [6] → AMD-Flaggschiff [1], AMD Mobile [1], AMD Mobile Athlon XP [2], AMD Mobile Athlon XP 1700+ [1], AMD-Prozessoren [1]. Anschlüsse [3] → Firewire-Anschlüsse [1], PCMCIA-Anschlüsse [1], USB-Anschlüsse [1]. Antiviren [2] → Antiviren-Software [2]. Anwendung [1] → PC-Anwendungen [1]. Athlon [13] → AMD Mobile Athlon XP [2], AMD Mobile Athlon XP 1700+ [1], Athlon-CPU [1], Athlon-Prozessoren [1], Athlon XP [2], Athlon XP 1600 [2], Athlon-XP-Modelle [1], Mobile Athlon XP [3]. ATI [1] → ATI Mobility Radeon [1]. Ausrüstung [1] → Standardausrüstung [1]. Ausstattung [4] → Grundausstattung [2], Hardware-Ausstattung [1], Vollausstattung [1].

B: Backup [1] → Backup-Software [1]. Befehlssatz [2] → 3D-Befehlssatz [1], MMX-Befehlssatz [1]. Benchmark [1] → 3D-Benchmarks [1]. Benutzer [11] → Benutzerführung [3], Benutzerkonto [5], Benutzertags [3]. Betreibssysteme [1] → Gast-Betreibssysteme [1]. Bild [1] → Computerbild [1]. Bildpunkten [1] → 1400x1050 Bildpunkten [1]. Bit [1] → 64-Bit-Offensive [1]. bitige [1] → 64-bitige Power4-Version [1]. BJC-55 [2] → Canon BJC-55 [1], Tintenstrahldrucker BJC-55 [1]. Blindwrite [2] → Blindwrite Suite [1], Blindwrite Suite 4.0 [1]. Breitband [1] → Breitband-Kommunikation [1]. Brenn [10] → Brennfunktion [1], 16facher Brenngeschwindigkeit [1], Brennprogramme [2], Brenn-Tool [1], CD-Brenn-Software [5]. Brenner [10] → 32fach-Brenner [1], CD-Brenner [1], Davideo CD-Brenner [5], Davideo CD-Brenner 5.5.6 [2], Internet-Film-Brenner [1]. Browser [1] → Externe Browser [1]. Burning [1] → Nero Burning ROM [1]. Bus [3] → 400-MHz-Frontside-Bus [1], DDR-Systembus [1], MPX-Bus [1]. Byte [1] → Elaborate Bytes [1].

C: Cache [1] → L2-Cache [1]. Cactus [2] → Cactus Data Shield 200 [2]. Canon [3] → Canon BJC-55 [1], Canon BJC-55 Tintenstrahler [1], Canon-Foto-Tinte [1]. CD [37] → Audio-CD [2], CD-Brenner [1], CD-Brenn-Software [5], CD-Formate [1], CD-Kopien [1], CD-Kopier-Programm [1], CD-Kopier-Tool [1], CD-ROM [2], CD-Symbolen [1], Daten-CD [1], Davideo CD-Brenner [5], Davideo CD-Brenner 5.5.6 [2], Heft-CD [4], Heft-CD-ROM [1], Kopiergeschützte CDs [1], Multimedia-CD [1], NTI CD-Maker [1], Quell-CD

[4], Spiele-CD [1], Video-CD [1]. CDR [1] → CDR-Win [1]. CDRW [3] → CDRW/DVD-Combo-Laufwerke [1], DVD-CDRW-Kombilaufwerk [2]. Cell [1] → Cell-Projekt [1]. Channel [1] → Subchannel [1]. Chip [10] → Chip-Fabriken [1], Chip-Haus [1], Grafikchip [4], 845er Chipsatz [1], Grafikchipsätze [1], Multi-Chip-Module [1], Supercomputer on a Chip [1]. Clone-CD [6] → Clone-CD 4 [6]. Code [3] → Codename [1], Freischaltcode [2]. Computer [13] → Computerbild [1], Computer-Netzwerken [1], Computer-Programm [1], Computer-Technik [1], Computer-Virus [1], Netzwerk-Computer [3], Supercomputer [2], Supercomputer on a Chip [1], tragbaren Computer [1], Windows-XP-Computer [1]. Computing [1] → Grid-Computing [1]. CPU [6] → Athlon-CPU [1], CPU-Potenzial [1], Intel-CPU [2], Mobile-CPU [1], Notebook-CPU [1].

D: DAO [1] → Raw-DAO-Modus [1]. Data [2] → Cactus Data Shield 200 [2]. Datei [5] → Dateiname [1], Musikdateien [1], Programmdateien [1], Videodateien [1], ZIP-Datei [1]. Daten [10] → Datenbank [2], Daten-CD [1], Datenkomprimierungs-Programm [1], Datennetz [1], Datenpirat [1], Daten Tracks [1], Datenträger [1], Datenübertragung [1], Vorab-Datenzugriffe [1]. Davideo [7] → Davideo CD-Brenner [5], Davideo CD-Brenner 5.5.6 [2]. DDR [2] → DDR-RAM-Support [1], DDR-Systembus [1]. Design [1] → 90-nm-Design [1]. Desktop [8] → Desktop-Kontrahenten [1], Desktop-PC [1], Desktop-Rechner [1], Desktop-Replacement [1], Desktop-Segment [1], Desktopvariante [1], Desktop Variante [1], McAfee Desktop Firewall 7.5 [1]. Dielektrikum [1] → Gate-Dielektrikum [1]. Display [6] → 14,1 Zoll-Display [1], 15,1-Zoll-Display [1], Display-Technologien [1], TFT-Display [3]. Druckkopf [3] → 4-Farb-Druckkopf [1], Fotodruckkopf [1], Schwarz-Druckkopf [1]. DVD [4] → CDRW/DVD-Combo-Laufwerke [1], DVD-CDRW-Kombilaufwerk [2], DVD-Laufwerk [1].

E: Editor [3] → HTML-Editor [1], XML-Editor [2]. Einstellungen [1] → Einstellungen-Profile [1]. elektronisch [1] → elektronischer Post [1]. Encoder [2] → MP3-Encoder [2]. externe [1] → Externe Browser [1].

F: Feld [2] → Adressfeld [1], Auswahlfelder [1]. Fenster [4] → Dialogfenster [1], Program m-Fenster [1], Winzip-Fenster [1], X-Fenster [1]. Festplatt [1] → Festplattenkapazität [1]. Firewall [1] → McAfee Desktop Firewall 7.5 [1]. Firewire [1] → Firewire-Anschlüsse [1]. Formate [1] → CD-Formate [1]. Funktion [5] → Brennfunktion [1], Funktionsumfang [2], Import-Funktionen [1], Projektmanager-Funktionen [1].

G: Gate [2] → Gate-Dielektrikum [1], Gate-Länge [1]. Grafik [6] → Grafikbearbeitung [1], Grafikchip [4], Grafikchipsätze [1]. Graphics [1] → Graphics Processor Unit [1]. Grid

[2] → Grid-Computing [1], Grid-taugliche [1].

H: Handbuch [2] → Online-Handbuch [1], SelfHTML Handbuch [1]. Hardware [2] → Hardware-Ausstattung [1], Hardware-seitige [1]. Highpaq [1] → Highpaq XI 1600 [1]. Hightech [2] → Hightech-Industrie [1], Hightech-Zunkunft [1]. Hochleistung [2] → Hochleistungsrechner [1], Hochleistungs-Notebook [1]. Homepage [1] → SelfHTML Homepage [1]. HTML [2] → HTML-Dokument [1], HTML-Editor [1].

I: IBM [1] → IBM Thinkpad R31 [1]. Images [1] → ISO-Images [1]. Import [1] → Import-Funktionen [1]. Infrarot [1] → Infrarotschnittstelle [1]. Installation [1] → Installationsroutine [1]. InstallShield [1] → InstallShield-Wizzard [1]. Intel [11] → Intel-CPU [2], Intel-eigenen [1], Intel-Fellow [1], Intel-Pentium 4M [3], Intel-Pentium IIIM [1], Intel-Pentium IIIM (LV1) [1], Intel-Pentium IIIM (ULV3) [1], Intel-Prozessoren [1]. Internet [11] → Internet-Anzeigeprogramme [1], Internet-Film-Brenner [1], Internet-Programm [1], Internet-Protokoll [4], Internet-Seite [2], Internet-Verbindung [2]. IP [5] → IP-Adresse [5]. ISO [1] → ISO-Images [1].

K: Kern [3] → e500-Kern [1], Prozessorkerne [1], Thoroughbred-Kern [1]. Klick [4] → Mausklick [4]. Komprimierung [2] → Komprimierungsverfahren [1], Datenkomprimierungs-Programm [1]. Kopie [3] → CD-Kopien [1], Sicherheitskopie [1], Sicherheits-Kopien [1]. Kopier [5] → CD-Kopier-Programm [1], CD-Kopier-Tool [1], Kopier-Neulinge [1], Kopier-Tools [1], Kopiervorgang [1]. Kopierschutz [2] → Kopierschutzmechanismen [2]. kopiergeschützte → Kopiergeschützte CDs [1].

L: LAN [1] → 10/100-MBit-LAN-Adapter [1]. Laufwerk [5] → CDRW/DVD-Combo-Laufwerke [1], DVD-CDRW-Kombilaufwerk [2], DVD-Laufwerk [1], Laufwerktechnologie [1]. Laufzeit [3] → Akkulaufzeit [3]. Leistung [13] → Bestleistungen [1], Dientsleistungen [1], Leistungsaufnahme [5], Leistungsfähig [1], Leistungsfähigkeit [1], Leistungsspektrum [1], Preis-Leistungs-Verhältnis [1], Rechenleistung [2]. Linux [4] → Linux-System [1], Linux Software [1], Red Hat Linux 7.3 [1], Red Hat Linux 7.3 Professional [1]. Lücken [5] → Sicherheitslücken [5].

M: Maus [7] → Mausersatz [1], Mausklick [4], Maustaste [2]. MBit [1] → 10/100-MBit-LAN-Adapter [1]. MByte [2] → 8Mbyte [1], 256 MByte RAM [1]. McAfee [1] → McAfee Desktop Firewall 7.5 [1]. Mediabook [1] → Mediabook XL 5600 [1]. Menü [11] → Menüleiste [2], Kontext-Menü [3], Menüname [1], Menüpunkt [4], Startmenü [1]. MHz [4] → 100/133 MHz2 [1], 400-MHz-Frontside-Bus [1], 1133 MHz Pentium 3 Mobile

Prozess [1], Herstellungsprozess [1]. Prozessor [16] → 1133 MHz Pentium 3 Mobile Prozessor [1], AMD-Prozessoren [1], Athlon-Prozessoren [1], Intel-Prozessoren [1], Mobile-Prozessor [2], Microprocessor Forum [1], Prozessorentwickler [1], Prozessorgeflüster [2], Prozessorhersteller [1], Prozessorkerne [1], Prozessorlüfter [2], Prozessor-Takt [1], XP-Prozessor [1].

Q: Quantispeed [1] → Quantispeed-Architektur [1].

R: RAM [2] → 256 MByte RAM [1], DDR-RAM-Support [1]. Rechen [6] → Rechenleistung [2], Rechenzentrum [2], verteilte Rechen [2]. Rechner [3] → Desktop-Rechner [1], Hochleistungsrechner [1], Mobilrechner [1]. Red Hat [2] → Red Hat Linux 7.3 [1], Red Hat Linux 7.3 Professional [1]. Reduzierung [1] → Taktreduzierung [1]. Regatta [1] → Regatta-Systemen [1]. ROM [4] → CD-ROM [2], Heft-CD-ROM [1], Nero Burning ROM [1]. Routine [1] → Installationsroutine [1].

S: Scan [1] → Stopping Scan [1]. Scanner [2] → Viren-Scanner [2]. Schema [1] → Schema-Unterstützung [1]. Schnittstelle [2] → Infrarotschnittstelle [1], USBschnittstelle [1], Segment [2] → Desktop-Segment [1], Notebook-Segment [1]. Seite [7] → Internet-Seite [2], Seitenvorschau [1], Startseite [1], Textseite [1], Webseite [2]. SelfHTML [2] → SelfHTML Handbuch [1], SelfHTML Homepage [1]. Serie [1] → C-Serie [1]. Server [1] → eServer [1]. Sicherheit [11] → Sicherheitshinweis [1], Sicherheitskopie [1], Sicherheits-Kopien [1], Sicherheitslücken [5], Sicherheitsprüfung [1], Sicherheits-Software [1], Sicherheitsüberprüfung [1]. Silicon [1] → strained silicon [1]. SIMD [3] → SIMD-Einheit [3]. Simulator [2] → PC-Simulator [2]. Software [13] → Antiviren-Software [2], Backup-Software [1], CD-Brenn-Software [5], Fernsteuer-Software [1], Linux Software [1], Sicherheits-Software [1], Spiele-Software [1], VSO-Software [1]. Sony [1] → Sony-Chef [1]. Speedstep [5] → Enhanced Speedstep [5]. Speicher [5] → Arbeitsspeicher [2], Hauptspeicher [2], Speicherplatz [1]. Spiele [3] → 3D-Spiele [1], Spiele-CD [1], Spiele-Software [1], Spielen [1] → verteiltes Spielen [1]. SSE [1] → SSE-2 [1]. standard [1] → Standardausrüstung [1]. Start [5] → Programm-Start [1], Start Address [2], Startmenü [1], Startseite [1]. Stop [3] → Stop Address [2], Stopping Scan [1]. Stromspar [4] → Stromsparmodus [1], Stromspartechnologien [3], SuperHTML [3] → SuperHTML 5.0 [3]. Symbolen [1] → CD-Symbolen [1]. System [4] → DDR-Systembus [1], Linux-System [1], Regatta-Systemen [1], Systemoptimierung [1].

T: Tag [6] → Benutzertags [3], Eröffender Tag [1], Schließender Tag [1], Tagname [1]. Takt [11] → Prozessor-Takt [1], Taktfrequenz [7], Taktgeschwindigkeit [1], Tak-

treduzierung [1], Taktung [1]. Task [1] → Taskmanager [1]. Test [12] → Kurztest [1], Testcenter [2], Testergebnissen [1], Testnachricht [1], Testsilizium [1], Testurteil [3], Testverfahren [2], Testversion [1]. Technik [3] → Computer-Technik [1], Fertigungstechnik [1], Strecktechnik [1]. Technologie [5] → Display-Technologien [1], Laufwerktechnologie [1], Stromspartechnologien [3]. Technology [1] → Chief Technology Officer [1]. TFT [3] → TFT-Display [3]. Thinkpad [3] → Thinkpad-Familie [1], Thinkpad R31 [1], IBM Thinkpad R31 [1]. Tintenstrahler [1] → Canon BJC-55 Tintenstrahler [1]. Tintenstrahldrucker [3] → Farbtintenstrahldrucker [1], Portabler Tintenstrahldrucker [1], Tintenstrahldrucker BJC-55 [1]. Tool [6] → Brenn-Tool [1], CD-Kopier-Tool [1], Kopier-Tools [1], Passwort-Tools [1], Such-Tool [1], Überwachungs-Tool [1]. tragbar [1] → tragbaren Computer. Treiber [2] → UDF-Treiber [2].

U: Überprüfung [2] → Sicherheitsüberprüfung [1], Überprüfungsprogramm [1]. Übert rägung [1] → Datenübertragung [1]. UDF [2] → UDF-Treiber [2]. Unit [1] → Graphics Processor Unit [1]. USB [2] → USB-Anschlüsse [1], USBschnittstelle [1]. User [1] → PC-User [1].

V: Variant [3] → 1600+-Variante [1], Desktopvariante [1], Desktop-Variante [1]. Version [7] → 64-bitige Power4-Version [1], 1133-MHz-Version [1], Offline-Version [1], Professional-Version [1], Testversion [1], Versionsnummer 5 [1], Vollversion [1]. verteilte [3] → verteilte Rechen [2], verteiltes Spielen [1]. Video [3] → S-Video-Ausgang [1], Video-CD [1], Videodateien [1]. Virus [5] → Computer-Virus [1], FP-Win Anti-Virus 3.0 [1], Viren-Attacken [1], Viren-Scanner [2]. Vorschau [1] → Seitenvorschau [1]. VSO [1] → VSO-Software [1].

W: Web [2] → Webseite [2]. Win [2] → CDR-Win [1], FP-Win Anti-Virus 3.0 [1]. Win4Lin [1] → Win4Lin 4.0 [1]. Windows [7] → Windows 95 und 98 [1], Windows 95 B/98/ME, NT 4, 2000 und XP [1], Windows 95/98, NT 4, 2000 und XP [1], Windows 98 SE/ME, NT4, 2000, XP [1], Windows XP [2], Windows-XP-Computer [1]. Winstone [1] → CC Winstone 2001 [1]. Winzip [1] → Winzip-Fenster [1]. Wizzard [1] → InstallShield-Wizzard [1].

X: XML [4] → XML-Befehl [1], XML-Editor [2], XML-Syntax [1]. XP [19] → AMD Mobile Athlon XP [2], AMD Mobile Athlon XP 1700+ [1], Athlon XP [2], Athlon XP 1600+ [2], Athlon-XP-Modelle [1], Mobile Athlon XP [3], Windows 95 B/98/ME, NT 4, 2000 und XP [1], Windows 95/98, NT 4, 2000 und XP [1], Windows 98 SE/ME, NT4, 2000, XP [1], Windows XP [2], Windows-XP-Computer [1], XP 1600+ [1], XP-Prozessor (XP processor) [1].

Y: Yaps [3] → Yaps 1.0.0.26 [3].

Z: ZIP [1] → ZIP-Datei [1].

Types: 229.
Tokens: 790.

14.5 Appendix E - New Types Derived from Compounds

3D [3], Adapter [1], Address [4], Adress [7], Alpha [1], Anschlüsse [3], Antiviren [2], Athlon [13], Ausrüstung [1], Backup [1], Befehlssatz [2], Betreibssysteme [1], Bildpunkten [1], bitige [1], Breitband [1], Brenn [10], Burning [1], Byte [1], Cache [1], Cactus [2], CDR [1], CDRW [3], Channel [1], Computing [1], DAO [1], Data [2], Davideo [7], DDR [2], Dielektrikum [1], DVD [4], Editor [3], elektronisch [1], Encoder [2], Festplatt [1], Firewire [1], Formate [1], Gate [2], Graphics [1], Grid [2], Highpaq [1], Hightech [2], HTML [2], Import [1], Infrarot [1], InstallShield [1], ISO [1], Komprimierung [2], kopiergeschützte [1], Kern [3], LAN [1], Laufzeit [3], Leistung [13], Maus [7], MBit [1], McAfee [1], MMX [1], Mobility Radeon [2], Modem [1], Modus [2], Mouse [1], MPX [1], MP3 [2], Multimedia [1], Nero [1], nm [6], NTI [1], Operationenen [1], Optimierung [1], P1262 [1], P4M [4], Passwort [1], PCMCIA [1], Pentium [21], Playstation [3], PowerPC [1], Processor [1], Profile [1], Projektmanager [1], Protokoll [4], Quantispeed [1], RAM [2], Rechen [6], Rechner [3], Red Hat [2], Reduzierung [1], ROM [4], Routine [1], Scanner [2], Schema [1], Segment [2], Serie [1], Silicon [1], SIMD [3], Simulator [2], Speicher [5], Spielen [1], standard [1], Stop [3], Stromspar [4], Task [1], Technology [1], TFT [3], Thinkpad [3], Tintenstrahler [1], Tintenstrahldrucker [3], tragbar [1], Überträgung [1], UDF [2], Unit [1], USB [2], User [1], verteilte [3],Video [3], VSO [1], Web [2], Winstone [1], Wizzard [1].
Total Number of New Types: 117.
Tokens: 272.

14.6 Appendix F - Classification of Borrowings

14.6.1 Foreign Words

3D Now (3D Now^{TM}) [2], Adapter ('adapter') [1], Address ('address') [4], Alpha (Alpha^{TM}) [1], AltiVec (AltiVec^{TM}) [1], AMD (AMD^{TM} - Advanced Micro Devices Inc.) [13], AMD Mobile (AMD^{TM} Mobile) [1], AppleMac (AppleMac^{TM}) [1], Asus (Asus^{TM}) [3], Athlon (Athlon^{TM}) [13], ATI (ATI^{TM}) [1], ATI^{TM} Mobility Radeon (ATI Mobility Radeon) [1], Backup ('backup') [1], Backup-Software ('backup software') [1], Benchmark (benchmark') [1], Bit ('bit/binary digit') [1], Blindread (Blindread^{TM}) [2], Blindwrite (Blindwrite^{TM}) [2], Blindwrite Suite (Blindwrite^{TM} Suite) [1], Body Bias (Body Bias^{TM}) [1], Browser ('browser') [8], Buffer ('buffer') [1], Burning ('burning') [1], Bus ('bus') [1], butterfly.net (butterfly.net^{TM}) [1], Button ('button') [1], Byte ('byte') [1], Cache ('cache') [1], Cactus (Cactus^{TM}) [2], Canon (Canon^{TM}) [3], CeBIT (CeBIT^{TM}) [1], Cell (Cell^{TM}) [4], Channel ('channel') [1], Chief Technology Officer ('chief technology officer') [1], Chip ('chip') [1], Code ('code') [1], Compaq (Compaq) [1], Computer ('computer') [27], Computing ('computing') [1], connect ('connect') [1], Controller ('controller') [1], Cursor ('cursor') [1], DAO ('Disk At Once') [1], Data ('data') [2], Davideo (Davideo^{TM}) [7], Deep Sleep (Deep Sleep^{TM}) [2], Deeper Sleep (Deeper Sleep^{TM}) [2], Dell (Dell^{TM}) [1], Design ('design') [1], Desktop ('Windows^{TM} desktop/desktop computer') [5], Desktop-Replacement ('desktop replacement') [1], Display ('display') [4], diverse ('diverse') [1], Download ('download') [2], Elaborate Bytes (Elaborate Bytes^{TM}) [1], Editor ('editor') [3], E-Mail ('e-mail') [1], Embedded ('embedded') [1], Encoder ('encoder') [2], Enhanced Speedstep (Enhanced Speedstep^{TM}) [5], eServer ('eServer') [1], Firewall ('firewall') [4], Firewire ('firewire') [1], FLOPS ('floating point operations per second') [1], Form ('form') [2], FSB ('front side bus') [1], Gate ('gate') [2], GByte ('gigabyte') [1], G-Data (G-Data^{TM}) [1], GHz ('gigahertz') [13], GPU ('graphics processing unit') [1], Graphics ('graphics') [1], Graphics Processor Unit ('graphics processor unit') [1], Grid ('grid') [2], Grid-Computing ('grid computing') [1], Hardware ('hardware') [3], Highpaq (Highpaq^{TM}) [1], Hightech ('hightech') [2], Import ('import') [1], HTML-Editor ('hypertext markup language editor') [1], Home ('home') [1], Homepage ('homepage') [1], IBM (IBM^{TM}) [13], Icons ('icons') [1], Images ('images') [1], Info ('information') [3], InstallShield (InstallShield^{TM}) [1], InstallShield-Wizzard (InstallShield-Wizzard^{TM}) [1], Intel (Intel^{TM}) [17], Intel-Fellow ('Intel^{TM} fellow') [1], Internet ('Internet') [10], Internet Explorer (Internet Explorer^{TM}) [5], IP ('internet protocol') [1], ISO-Images ('ISO/ International Organisation for Standardisation images') [1], KByte ('kilobyte') [6], Key2audio (Key2audio^{TM}) [2], LAN ('local area network') [1], Layer ('layer') [1], Link ('link') [2], Linux (Linux^{TM}) [1], Linux Software ('Linux^{TM} software') [1], Lite-On (Lite-On^{TM}) [1],

MBit ('Megabit') [1], MByte ('megabyte') [2], McAfee (McAfee^{TM}) [1], Mediabook ('mediabook') [1], Megahertz ('megahertz') [1], MHz ('megahertz') [9], Microprocessor Forum ('microprocessor newsgroup') [1], Microsoft (Microsoft^{TM}) [2], Mobility Radeon (Mobility Radeon^{TM}) [2], Modem ('modem') [1], Motorola (Motorola^{TM}) [4], Mouse ('mouse') [1], Mousestick ('mousestick') [1], Multimedia ('multimedia') [1], Nero (Nero^{TM}) [1], Nero Burning ROM ('Nero^{TM} burning read only memory') [1], Netscape (Netscape^{TM}) [1], Newtech Infosystems (Newtech Infosystems^{TM}) [1], nm ('nano meters') [6], Nord (Nord^{TM}) [1], Notebook ('notebook') [17], NTI (NTI^{TM}) [1], Office ('office') [1], offline ('offline') [1], OK ('OK') [3], online ('online') [3], Opera (Opera^{TM}) [1], Pentium (Pentium^{TM}) [21], Performance ('performance') [3], Playstation (Playstation^{TM}) [3], Port ('port') [23], Power Now (Power Now^{TM}) [4], PowerPC (PowerPc^{TM}) [1], Processor ('processor') [1], Prescott (Prescott^{TM}) [1], Profile ('profile') [1], Quantispeed (Quantispeed^{TM}) [1], RAM ('random access memoery') [2], Red Hat (Red Hat^{TM}) [2], Regatta (Regatta^{TM}) [2], ROM ('read only memory') [4], Routine ('routine') [1], Safedisc (Safedisc^{TM}) [4], Scan ('scan') [1], Scanner ('scanner') [2], Segment ('segment') [2], SelfHTML (SelfHTML^{TM}) [5], Server ('server') [3], Shareware ('shareware') [2], Silicon ('silicon') [1], Silicon Valley ('Silicon Valley') [1], Software ('software') [10], SOI ('Silicon-On-Insulator') [1], Sony (Sony^{TM}) [4], Speed Grade (Speed Grade^{TM}) [1], Speedstep (Speedstep^{TM}) [4], SRAMs ('synchronous dynamic random access memories') [1], SSE ('Streaming SIMD Extension') [5], standard ('standard') [1], Start ('start') [2], Start Address ('starting address') [2], Startup ('startup') [1], Stop ('stop') [3], Stop Address ('stopping address') [2], Stopping Scan ('stopping scan') [1], strained silicon ('strained silicon') [1], Subchannel ('subchannel') [1], Supercomputer ('supercomputer') [2], Supercomputer on a Chip ('supercomputer on a chip') [1], SuperHTML (SuperHTML^{TM}) [7], Symbol ('symbol') [4], Tag ('tag') [4], Tape ('tape') [1], Task ('task') [1], Taskmanager ('taskmanager') [1], Technology ('technology') [1], Test ('test') [9], Testcenter ('test centre') [2], Text ('text') [2], Thinkpad (Thinkpad^{TM}) [3], ticken ('to tick') [1], TFLOPS ('trillion floating point operations per second') [2], TFT-Display ('Thin-Film Transistor display') [3], Tool ('tool') [4], Toshiba (Toshiba^{TM}) [1], Triumvirat (Triumvirat^{TM}) [1], Underruns ('underruns') [1], Unit ('unit') [1], Update ('update') [2], User ('user') [1], Video ('video') [3], Vobis (Vobis^{TM}) [2], VSO-Software ('VSO^{TM} software') [1], Web ('web') [2], Website ('website') [1], Win (Win^{TM}) [1], Win4Lin (Win4Lin^{TM}) [1], Windows (Windows^{TM}) [1], Winstone (Winstone^{TM}) [1]. Winzip (Winzip^{TM}) [1], Xmetal (Xmetal^{TM}) [1], Yaps (Yaps^{TM}/'yet another port scanner') [13], Yet Another Port Scanner ('yet another port scanner') [1], ZIP ('zip') [2].

Types: 206. **Tokens:** 551.

14.6.2 Assimilated Loan Words

1,2 nm ('1,2 nano meter') [1], 3D ('3 dimensional') [3], 3D-Benchmarks ('three dimensional benchmark') [1], 8MByte ('8 megabyte') [1], 10/100-MBit-LAN-Adapter ('10/100 megabit local area network adapter') [1], 50 nm ('50 nano meters') [1], 64-Bit-Offensive ('64 bit offensive') [1], 100/133 MHz2 ('100/133 megahertz 2') [1], 256 MByte RAM ('256 megabyte random access memory') [1], 400-MHZ-Frontside-Bus ('400 megahertz frontside bus') [1], 1133-MHz-Version ('1133 megahertz version') [1], 1133 MHz Pentium 3 Mobile Prozessor ('1133 megahertz Pentium 3 mobile prosessor') [1], 1600+-Variante ('1600+ variant') [1], Administrator ('administrator') [5], Adress ('address') [7], Aktion ('action') [1], aktiv ('active') [2], aktiviertem ('activated') [1], aktuell ('actual/current') [8], Alpha 21164PC (Alpha^{TM} 21164PC) [1], AMD Mobile Athlon XP (AMD Mobile Athlon XP^{TM}) [2], AMD Mobile Athlon XP 1700+ (AMD Mobile Athlon XP 1700+^{TM}) [1], AMD-Prozessoren ('AMD^{TM} processors') [1], analysieren ('to analyse') [1], Athlon-CPU ('Athlon^{TM} central processing unit') [1], Athlon-Prozessoren ('Athlon^{TM} processors') [1], Athlon XP (Athlon XP^{TM}) [2], Athlon XP 1600+ (Athlon XP 1600+^{TM}) [2], Athlon-XP-Modelle ('Athlon XP^{TM} models') [1], Audio-CD ('audio compact disc') [2], automatisch ('automated/automatic') [2], basierend ('based') [1], Basis ('base') [1], Batterie ('battery') [1], bitige ('bit') [1], BJC-55 (BJC-55^{TM}) [3], BJC-85 (BJC-85^{TM}) [1], Blindwrite Suite 4.0 (Blindwrite Suite 4.0^{TM}) [2], bootfähig ('bootable') [2], Cactus Data Shield 200 (Cactus Data Shield 200^{TM}) [2], Canon BJC-55 (Canon BJC-55^{TM}) [1], CC Winstone 2001 (CC Winstone^{TM} 2001) [1], CD ('compact disc') [8], CD 5 ('CD 5') [1], CDR ('Compact Disk Recordable') [1], CD-ROM ('compact disc read-only memory') [2], CDRW ('Compact Disk ReWritable') [3], CDR-Win ('CDR-Win^{TM}') [1], Cell-Projekt ('Cell^{TM} project') [1], Clone-CD (Clone-CD^{TM}) [4], Clone-CD 4 (Clone-CD 4^{TM}) [6], Codename ('code name') [1], CPU ('CPU - central processing unit') [3], Daten ('data') [6], Daten-CD ('data CD') [1], DDR ('Double Data Rate') [2], DDR-RAM-Support ('double data rate random access memory support') [1], DDR-Systembus ('double data rate system bus') [1], deaktivieren ('deactivate') [1], DEC ('digital entertainment centre') [1], defekt ('defective') [2], Definition ('definition') [1], Desktop-PC ('desktop personal computer') [1], Desktop-Segment ('desktop segment/overlay') [1], Dielektrikum ('dielectric') [1], dimensionierte ('dimensioned') [1], direkt ('direct') [4], Disketten ('floppy disks') [2], Distribution ('distribution') [1], Dokument ('document') [2], DVD ('Digital Versatile Disk) [4], effektive ('effective') [1], elektronisch ('electronic') [1], Entwicklungs-Suite ('development suite') [1], exakte ('exact') [1], externe ('external') [4], extrahieren ('to extract) [1], Fab 30 (Fab 30^{TM}) [1], Faktor ('factor') [1], Formate (formats) [1], FP-Win

Anti-Virus 3.0 (FP-Win Anti-Virus 3.0^{TM}) [1], Funktionen ('functions') [5], funktionieren ('to function') [2], Gamern ('gamers/gaming') [1], Geforce 4 (Geforce 4^{TM}) [1], Generation ('generation') [2], generieren ('to generate') [1], Gnome ('gnomes') [1], G4-Mac (G4-Mac) [1], Heft-CD ('magazine CD') [4], Heft-CD-ROM ('magazine compact disc read only memory') [1], Highpaq XI 1600 (Highpaq XI 1600^{TM}) [1], HTML ('Hyper Text Markup Language') [2], HTML-Dokument ('hypertext markup language document') [1], horizontal ('horizontal') [1], IBM Thinkpad R31 (IBM Thinkpad R31^{TM}) [1], ingnorieren ('to ignore') [1], immobile ('immobile') [1], Informationen ('informations') [3], informieren ('to inform') [1], inklusive ('inclusive') [1], instabil ('instable') [1], installieren ('to install/set up') [4], Installation ('installation/setup') [6], Installationsroutine ('setup/installation routine') [1], Intel-CPU ('Intel^{TM} central processing unit) [2], Intel-Pentium 4M (Intel-Pentium 4M^{TM}) [3], Intel-Pentium IIIM (Intel-Pentium IIIM^{TM}) [1], Intel-Pentium IIIM (LV1) (Intel-Pentium IIIM (LV1)^{TM}) [1], Intel-Pentium IIIM (ULV3) (Intel-Pentium IIIM (ULV3)^{TM}) [1], Intel-Prozessoren (Intel^{TM} processors') [1], ISO ('International Organization for Standardization') [1], Klick ('click') [5], klicken ('to click') [9], Kombination ('combination') [2], komplette ('complete') [4], Komponenten ('components') [2], komprimiern ('to compress/zip') [1], konfigurieren ('to configure') [1], Konkurrenz ('contention') [1], Konzept ('concept') [1], Kopie ('copy') [1], Kopieren ('copying/duplication') [1], korrigieren ('to correct') [1], kreieren ('to create') [2], L2-Cache ('L2 cache') [1], L3800S (L3800S^{TM}) [3], Linux-System ('Linux^{TM} system') [1], Liste ('list/register') [1], lokal ('local') [1], Lüfter ('blower/fan') [2], Luminanz ('luminance') [1], McAfee Desktop Firewall 7.5 (McAfee Desktop Firewall 7.5^{TM}) [1], Mediabook XL 5600 (Mediabook XL 5600^{TM}) [1], Menü ('menu') [3], MMX ('**M**ulti**m**edia E**x**tensions,') [1], mobile ('mobile') [12], Mobile Athlon XP ('Mobile Athlon XP^{TM}') [3], Mobility Radeon M7 (Mobility Radeon M7^{TM}) [1], Modelle ('models') [2], Modul ('module') [3], Modus ('mode') [2], MPC7455 (MPC7455^{TM}) [1], MPC7470 (MPC7470^{TM}) [1], MPX (MPX^{TM}) [1], MPX-Bus ('MPX bus') [1], MP3 ('MP3') [2], MP3-Encoder ('MP3 encoder') [2], Multimedia-CD ('multimedia CD') [1], Netz ('net/network/web/Internet') [1], Netzwerk ('network') [16], Netzwerk-Computer ('network computer') [3], Netzwerk-Kurs ('network course') [3], Netzwerk-Programme ('network program') [1], Notebook-CPU ('notebook CPU/cental processing unit') [1], NTI CD-Maker (NTI CD-Maker^{TM}) [1], Offline-Version ('offline version') [1], onlinefähig ('online') [1], Operationenen ('operations')[1], optimal ('optimal') [1], Optimierung ('optimisation') [1], optional ('optional') [3], Optionen ('options') [4], P1262 (P1262^{TM}) [1], P1262-Prozess ('P1262^{TM} process') [1], P4M (P4M^{TM}) [4], P4M-Notebook ('P4M^{TM} notebook') [4], parallele ('parallel') [1], PC ('PC/personal computer') [3], PC DIREKT (PC DIREKT^{TM}) [2], PCMCIA ('Personal Computer Memory Card Interface Adapter') [1], Pentium III (Pentium III^{TM})

[1], Pentium IIIM (Pentium IIIM^{TM}) [2], Pentium 4 (Pentium 4^{TM}) [6], Pentium 4M (Pentium 4M^{TM}) [4], Pentium 4/1500 (Pentium 4/1500^{TM}) [1], Playstation 2 (Playstation 2^{TM}) [2], Playstation 3 (Playstation 3^{TM}) [1], Port 14 ('port 14') [1], portable ('partable') [2], Power 4 (Power 4^{TM}) [1], Profis ('professionals') [1], Programm ('program') [30], Protokoll ('protocol') [4], Prozess ('process') [1], Prozessor ('processor') [11], R31 (R31^{TM}) [2], Red Hat Linux 7.3 (Red Hat Linux 7.3^{TM}) [1], Red Hat Linux 7.3 Professional (Red Hat Linux 7.3 Professional^{TM}) [1], Reduzierung ('reduction') [1], Schema ('schema') [1], Serie ('series') [1], serielle ('serial') [1], serienmäßig ('in series') [1], SIMD ('Single Instruction Multiple Data') [3], Simulator ('simulator') [2], Sony-Chef ('Sony^{TM} boss') [1], spezialisierte ('specialised') [1], spezielle ('special') [3], SSE-2 ('Streaming SIMD Extension 2') [1], standardisierte ('standardised') [1], standardmäßig ('standard') [1], strukturieren ('to structure') [1], SuperHTML 5.0 (SuperHTML 5.0^{TM}) [3], Technik ('engineering/technology') [3], Technologien ('technologies') [1], testen ('to test') [5], TFT ('Thin-Film Transistor') [3], Thinkpad R31 (Thinkpad R31^{TM}) [1], Typ ('type') [1], UDF ('Universal Disc Format') [2], USB ('Universal Serial Bus') [2], V9.0-Modem ('V9.0 modem') [1], Variante ('variant') [3], Version ('version') [5], Virus ('virus') [3], VSO (VSO^{TM}) [1], Wizzard ('wizzard') [1], Win4Lin 4.0 (Win4Lin 4.0) [1], Windows 95 und 98 (Windows^{TM} 95 and 98) [1], Windows 95 B/98/ME, NT 4, 2000 und XP (Windows^{TM} 95 B/98/ME, NT 4, 2000 and XP) [1], Windows 95/98, NT 4, 2000 und XP (Windows^{TM} 95/98, NT 4, 2000 and XP) [1], Windows 98 SE/ME, NT4, 2000, XP (Windows^{TM} 98 SE/ME, NT4, 2000, XP) [1], Windows XP (Windows^{TM} XP) [2], XML (extensible markup language') [1], XML-Editor ('extensible markup language editor') [2], XML-Syntax ('extensible markup language syntax') [1], XP (XP^{TM}) [1], XP 1600+ (XP 1600+^{TM}) [1], XP-Prozessor ('XP^{TM} processor')[1], Yaps 1.0.0.26 (Yaps/'yet another port scanner' 1.0.0.26^{TM}) [3].

Types: 230.
Tokens: 479.

14.6.3 Loan Translations

3D-Befehlssatz (‘three dimensional instruction set’) [1], 3D-Spiele (‘3D Games’) [1], 4-Farb-Druckkopf (‘4 colour print head’) [1], 14,1 Zoll-Display (‘14,1 inch display’) [1], 15,1-Zoll-Display (‘15,1 inch display’) [1], 16facher Brenngeschwindigkeit (‘sixteenfold burning speed’) [1], 32fach-Brenner (‘32 fold burner’) [1], 64-bitige Power4-Version (‘64 bit Power4^{TM} version’) [1], 90-nm-Prozess (‘90 nano meter process’) [3], 90-nm-Design (‘90 nano meter design’) [1], 100-nm-Prozess (‘100 nanometer process’) [1], 845er Chipsatz (‘845 chipset’) [1], Administrator-Rechte (‘administrator authorisations’) [1], Adressbereich (‘address range’) [1], Adressfeld (‘address field’) [1], Akkubetrieb (‘battery operation’) [2], AMD-Flaggschiff (‘AMD^{TM} flagship’) [1], an Board (‘onboard’) [1], Antiviren (‘antivirus’) [2], Antiviren-Software (‘antivirus software’) [2], Arbeitsfreqeunzen (‘operating frequency’) [1], Arbeitsgeschwindigkeit (‘operating speed’) [1], Auslesen (‘readout’) [1], Auswahlfelder (‘multiple choice fields’) [1], Bedienerführung (‘operator prompting’) [3], Befehlssatz (‘instruction set’) [2], Benutzerführung (‘user prompting’) [3], Benutzerkonto (‘user account’) [5], Benutzertags (‘user tags’) [3], Bestleistungen (‘best performance’) [1], Betreibssysteme (‘operating system’) [1], Blickwinkel (‘angle of view’) [1], Breitband (‘broadband’) [1], Breitband-Kommunikation (‘broadband communication’) [1], Brennfunktion (‘burn function’) [1], Brenner (‘burner’) [2], Brennprogramme (‘burning program’) [2], Brenn-Tool (‘burning tool’) [1], Budget-Modellen (‘budget models’) [1], Canon BJC-55 Tintenstrahler (‘Canon BJC-55^{TM} ink-jet’) [1], Canon-Foto-Tinte (‘Canon^{TM} photo ink’) [1], CD-Brenner (‘CD burner’) [1], CD-Brenn-Software (‘CD burning software’) [5], CD-Formate (‘CD formats’) [1], CD-Kopien (‘CD copies’) [1], CD-Kopier-Programm (‘CD copying program’) [1], CD-Kopier-Tool (‘CD copying tool’) [1], CDRW/DVD-Combo-Laufwerke (‘compact disc read write/digital versatile disc combined drive’) [1], CD-Symbolen (‘CD characters/icons’) [1], Chip-Fabriken (‘chip factories’) [1], Chip-Haus (‘chip house’) [1], Computerbild (‘computer image’) [1], Computer-Netzwerken (‘computer networks’) [1], Computer-Programm (‘computer program’) [1], Computer-Technik (‘computer technology’) [1], Computer-Virus (‘computer virus’) [1], CPU-Potenzial (‘CPU-potential’) [1], C-Serie (‘C series’) [1], Datenkomprimierungs-Programm (‘data compression program’) [1], Dateiname (‘file name’) [2], Datennetz (‘data network’) [1], Datenpirat (‘data pirate’) [1], Daten Tracks (‘data tracks’) [1], Datenträger (‘data carrier’) [1], Datenübertragung (‘data exchange’) [1], Davideo CD-Brenner (‘Davideo^{TM} CD burner’) [5], Davideo CD-Brenner 5.5.6 (‘Davideo^{TM} CD burner 5.5.6’) [2], Desktop-Kontrahenten (‘desktop rivals’) [1], Desktop-Rechner (‘desktop computer’) [1], Desktopvariante (‘desktop variant’) [1], Desktop-Variante (‘desktop variant’) [2], Dialogfenster (‘dialog window’) [1], Display-Technologien (‘display technology’) [1], Druckgeschwindigkeit (‘printing speed’) [1], Druckköpf (‘print head’) [1], Druckmedien

('print media') [1], Druckqualität ('print quality') [2], DVD-CDRW-Kombilaufwerk ('digital versatile disc compact disc read write combined drive') [2], DVD-Laufwerk ('digital versatile disc drive') [1], Einlesen ('readin') [1], Einstellungen-Profile ('settings profile') [1], Einzelblatteinzug ('single-sheet feeder') [3], Einzelnetzwerken ('separate networks') [1], elektronischer Post ('electronic post') [1], Elektroindustrie ('electric industry') [1], Elektronikindustrie ('electronic industry') [1], Eröffender Tag ('opening tag') [1], Externe Browser ('external browser') [1], e500-Kern ('e500 kernel') [1], Farbtintenstrahldrucker ('colour ink-jet printer') [1], Fernsteuer-Software ('remote control software') [1], Fertigungstechnik ('maufacturing/production technology') [1], Firewire-Anschlüsse ('firewire port/connection') [1], Fotodruckkopf ('photo print head') [1], Funktionsumfang ('range of function') [2], Gast-Betreibssysteme ('guest operating system') [1], Gate-Dielektrikum ('gate dielectric medium') [1], Gate-Länge ('gate length') [1], Gesamtperformance ('overall performance') [1], gestrecktes Silizium ('stretched silicon') [1], Gleitkommaoperationen pro Sekunde ('floating point operation per second') [1], Grafikbearbeitung ('graphics editing') [1], Grafikchip ('graphics chip') [4], Grafikchipsätze ('graphic chipsets ') [1], Grid-taugliche ('grid compliant') [1], Grundausstattung ('basic configuration') [2], Handbuch ('handbook/manual') [1], Hardware-Ausstattung ('hardware configuration') [1], Hardware-seitige ('hardware-current') [1], Herstellungsprozess ('manufacturing process') [1], Hightech-Industrie ('hightech industry') [1], Hightech-Zunkunft ('hightech future') [1], Hochleistung ('high-performance') [1], Hochleistungsrechner ('high-performance computer') [1], Hochleistungs-Notebook ('high-performance notebook') [1], Import-Funktionen ('import functions') [1], Infrarot ('infrared') [1], Intel-eigenen ('Intel^{TM} own') [1], Internet-Anzeigeprogramme ('Internet display program') [1], Internet-Film-Brenner ('internet film burner') [1], Internet-Programm ('internet program') [1], Internet-Protokoll ('Internet protocol') [4], IP-Adresse ('internet protocol address') [5], Internet-Seite ('internet pages/ web pages') [2], Internet-Verbindung ('Internet connection') [2], Komprimierungsverfahren ('compression proceedure') [1], Kontrastwerte ('contrast value') [1], Kopier-Neulinge ('copy beginners') [1], kopiergeschützte [1], Kopiergeschützte CDs ('copy protected compact discs') [1], Kopierschutz ('copy protection') [4], Kopierschutzmechanismen ('copy protection mechanisms') [2], Kopier-Tools ('copy tools') [1], Kopiervorgang ('copying process') [1], Kurztest ('short test') [1], Ladungsträger ('charge carrier') [1], Laufwerktechnologie ('drive technology') [1], Leckströme ('leakage currents') [1], Leistungsspektrum ('performance spectrum') [1], Lesefehler ('read error') [1], Lesetempo ('reading tempo') [1], Lesevorgang ('reading process') [2], Lithium-Ionen-Akku ('lithium ion battery') [1], Mausersatz ('mouse replacement') [1], Mausklick ('mouse click') [4], Maustaste ('mouse key/button') [2], Menüname ('menu name') [1], MMX-Befehlssatz ('MMX instruction set') [1], Mobilbereich ('mobile sector') [2], Mobile-CPU ('mobile

CPU/central processing unit') [1], Mobile-Prozessor ('mobile processor') [2], Mobilrechner ('mobile computer') [1], Multi-Chip-Module ('multi chip module') [1], Musikdateien ('music files') [1], Netzwerkeinstellungen ('network settings') [1], Notebook-Hersteller ('notebook manufacturer') [1], Notebook-Käufer ('notebook customer') [1], Notebook-Segment ('notebook overlay/segment') [1], Nutzwert ('utility value') [1], Online-Handbuch ('online hanbook/manual') [1], Pack-Programm ('packer/pack program') [1], Paketmanager ('package manager') [1], Passwort-Tools ('password tools') [1], PC-Anwendungen ('PC applications') [1], PCMCIA-Anschlüsse ('PCMCIA/personal computer memory card interface adapter port ') [1], PC-Simulator ('PC simulator') [2], PC-User ('PC user') [1], Portabler Tintenstrahldrucker ('portable ink-jet printer') [1], Port-Scanner ('port scanner') [8], Passwort ('password') [1], PowerPC-Szene ('power PC scene') [1], Preis-Leistungs-Verhältnis ('price-performance ratio') [1], Professional-Version ('professional version') [1], Programmdateien ('program files') [1], Programmelement ('program element') [1], Programm-Fenster ('program window') [1], Programm-Start ('program start') [1], Projektmanager ('project manager') [1], Projektmanager-Funktionen ('project manager functions') [1], Prozessorentwickler ('processor developer') [1], Prozessorhersteller ('processor manufacturer') [1], Prozessorkerne ('processor core') [1], Prozessorlüfter ('processor fan') [2], Prozessor-Takt ('processor clock/meter') [1], Quantispeed-Architektur ('Quantispeed^{TM} architechture') [1], Quell-CD ('source CD') [4], Raw-DAO-Modus ('raw DAO mode') [1], Rechenleistung ('computing performance') [2], Rechenzentrum ('computing centre') [2], Regatta-Systemen ('Regatta^{TM} systems') [1], Scankopf ('scanning head') [1], Schädlings-programm ('parasite program') [1], Schema-Unterstützung ('schema support') [1], Schreibvorgang ('writing process') [1], Schließender Tag ('closing tag') [1], Schreibtempo ('writing tempo') [1], SchreibtischPC ('desktop PC') [1], Schwarz-Druckkopf ('black print head') [1], Seitenvorschau ('page preview') [1], SelfHTML Handbuch ('SelfHTML^{TM} handbook') [1], SelfHTML Homepage ('SelfHTML^{TM} homepage') [1], Si-Ge-Schicht (' SiGe coating/layer') [1], Sicherheitshinweis ('security hints') [1], Sicherheitskopie ('security copy') [1], Sicherheits-Kopien ('security copies') [1], Sicherheitslücken ('security gaps') [5], Sicherheitsprüfung ('security check') [1], Sicherheits-Software ('security check') [1], Sicherheitsüberprüfung ('security check') [1], SIMD-Einheit ('SIMD ('single instruction/multiple data') unit') [3], Spiele-CD (''computer') games CD') [1], Spiele-Software ('games software') [1], Standardausrüstung ('standard equipment') [1], Stapeleinzug ('batch feeder') [1], Startmenü ('start menu') [1], Startseite ('home/start page') [1], Strecktechnik ('straining technology') [1], Stromspar ('energy/ power saving) [4], stromsparendem ('power/energy saving') [1], Stromsparmodus ('power-down mode') [1], Stromspartechnologien ('power/energy saving technology') [3], Subnetz ('subnet') [3], Such-Tool ('search tool') [1], S-Video-Ausgang ('S-video outlet') [1], Sys-

temoptimierung ('system tuning/optimisation') [1], Taktfrequenz ('clock frequency') [7], Taktgeschwindigkeit ('clock speed') [1], Taktreduzierung ('clock reduction') [1], Taktung ('clocking') [1], Tagname ('tag name') [1], Tastaturanschlägen ('keyboard stroke') [1], Testergebnissen ('test results') [1], Testnachricht ('test message') [1], Testsilizium ('test silicon') [1], Testurteil ('test execution') [3], Testverfahren ('test method') [2], Testversion ('test version') [1], Textseite ('text page') [1], Thinkpad-Familie ('Thinkpad^{TM} family') [1], Thoroughbred-Kern ('thoroughbred core') [1], Tiefschlaf ('deep sleep') [1], Tintenstrahler ('ink jet (printer)') [1], Tintenstrahldrucker ('ink jet printer') [3], Tintenstrahldrucker BJC-55 ('ink-jet printer BJC-55^{TM}') [1], tragbaren Computer ('portable computer') [1], Überprüfungsprogramm ('inspection program') [1], Überwachungs-Tool ('monitor/watchdog program') [1], UDF-Treiber ('UDF/universal disc format drive') [2], USB-Anschlüsse ('USB/universal serial bus') [1], USBschnittstelle ('USB/universal serial bus interface') [1], Versionsnummer 5 ('version number 5') [1], verteilte Rechen ('distributed computing') [2], verteiltes Spielen ('distributed playing') [1], Video-CD ('video CD') [1], Videodateien ('video files') [1], Viren-Attacken ('virus attacks') [1], Viren-Scanner ('virus scanner') [2], Vollausstattung ('maximum configuration') [1], Vollversion ('full/complete version')[1], Vorab-Datenzugriffe ('pre-data access') [1], Webseite ('website') [2], Windows-XP-Computer ('Windows XP^{TM} computer') [1], Winzip-Fenster ('Winzip^{TM} window') [1], XML-Befehl ('extensible markup language instruction') [1], X-Fenster ('X window') [1], Zellhaufen ('cell heap') [1], ZIP-Datei ('zip file') [1], Zusatzprogramme ('addin program') [1].

Types: 268.
Tokens: 371.

14.6.4 Loan Renditions

Akku ('accumulator/storage battery') [1], Akkulaufzeit ('battery life') [3], Arbeitsoberfläche ('desktop') [1], Arbeitsspeicher ('system memory') [2], Datenbank ('database') [2], Festplatt ('hard disk') [1], Festplattenkapazität ('hard disk capacity') [1], Hauptspeicher ('central/main memory') [2], Infrarotschnittstelle ('infrared interface') [1], Kennwort ('call word/code word/keyword/password') [2], Kontext-Menü ('object menu') [3], Menü -leiste ('menu bar') [2], Menüpunkt ('menu level') [4], Prozessorgeflüster ('processor noise') [2].

Types: 14.
Tokens: 27.

14.6.5 Loan Meanings

abrufen (‘to call/recall’) [2], Anschlüsse (‘connection’) [3], Antwort (‘response’) [1], antw -orten (‘to respond’) [1], Anwender (‘user’) [5], Anwendung (‘application’) [1], Auflösung (‘resolution’) [1], Aufruf (‘call/calling’) [1], Ausspionieren (‘espionage/spying’) [1], Ausrü -stung (‘equipment’) [1], Ausstattung (‘layout/configuration’) [1], beenden (‘to end/cancel /quit’) [4], beginnen (‘to begin/start’) [1], Benutzer (‘user’) [8], Bild (‘image’) [1], brennen (‘to burn’) [1], Brenn (‘burning’) [10], Brennen (‘burning’) [1], Diener (‘server’) [1], Dienstleistungen (‘service’) [1], Drucker (‘printer’) [2], eigenständig (‘stand-alone’) [1], Einschalten (‘activation’) [1], Einstellungen (‘settings’) [4], einzubinden (‘to link’) [1], entpacken (‘to unpack/unzip’) [2], Entwicklern (‘developers’) [1], Fehler (‘error/failure’) [1], Feldern (‘fields/arrays/items/panels/cells’) [1], Fenster (‘window’) [3], Gerät (‘device’) [3], gestalten (‘to design’) [2], Haken (‘hook/position in program’) [1], herunterschalten (‘to close/shut down’) [1], Hinzufügen (‘attach’) [2], Kern (‘core’) [3], Komprimierung (‘compression’) [2], laufen (‘to run’) [4], Laufwerke (‘drives’) [1], Laufzeit (‘runtime’) [3], Leistung (‘performance’) [13], Leistungsfähig (‘high-capacity/performance’) [1], Leistungsfähigkeit (‘capability/performance’) [1], Lücke (‘gap’) [1], Maus (‘mouse’) [7], Nutzen (‘utility’) [1], Öffnung (‘opening/nozzle/port’) [1], Ordner (‘folder’) [1], packen (‘to pack/compress’) [1], Paket (‘packet/package’) [2], Partitionierer (‘partitioner’) [1], Pfad (‘path’) [4], Plattform (‘platform’) [1], quittieren (‘to aknowledge’) [1], Rechen (‘computing’) [6], Rechner (‘computer’) [3], scannen (‘to scan’) [1], Schnittstelle (‘interface’) [2], Schutz (‘protection’) [1], schützen (‘to protect/save’) [2], Schwachstellen (‘flaws’) [2], Sektoren (‘sectors’) [2], Seiten (‘pages/web pages’) [2], senden (‘to send’) [1], Sicherheit (‘security’) [1], sichern (‘to protect/back up/save’) [3], Speicher (‘memory’) [5], speichern (‘to record/store’) [8], Spiele (‘(‘computer’) games’) [1], Spielen (‘gaming’) [1], starten (‘to start/activate’) [9], Streckbank (‘rack’) [1], System (‘system’) [1], Takt (‘clock/pulse/meter’) [2], takten (‘to synchronise’) [2], tragbar [1], Treiber (‘driver’) [1], übernehmen (‘accept’) [5], überprüfen (‘to check’) [4], überspringen (‘to leap/skip’) [1], Überprüfung (‘check’) [2], Überträgung (‘exchange/transfer’) [1], Umbenennen (‘renaming’) [1], verschlüsselt (‘encode’) [1], Verschlüsselung (‘encoding/encrytion’) [1], verteilte (‘distributed’) [3], Vorschau (‘preview’) [1], Weiter (‘forward’) [1], Werkzeug (‘tool’) [1].

Types: 89.
Tokens: 201.

14.6.6 Loan Creations

1400x1050 Bildpunkten (‘1400x1050 pixels’) [1], Bildpunkten [1], Dateien (‘files’) [1], Freischaltcode (‘self service password’) [2], Leistungsaufnahme (‘power input’) [5], Netzteil (‘power supply unit’) [2], Schaltfläche (‘button’)[1], Speicherplatz (‘memory space’) [1], Steckdose (‘outlet box’) [1], Stellfläche (‘footprint’) [1].

Types: 10.
Tokens: 16.

14.7 Appendix G - Online Survey

Willkommen zur Online-Umfrage über Anglizismen in der deutschen Sprache, die nur einige Minuten Ihrer Zeit durchzuführen aufnimmt!

Zuerst lesen Sie bitte den folgenden Artikel, dann beantworten Sie die Fragen und wenn fertig, klicken Sie bitte auf "Schicken"!

Der Sicherheitscheck

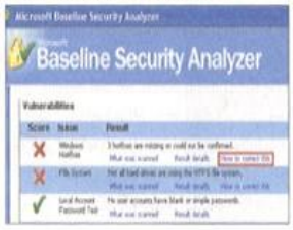
Wie gesagt: Endlich hat Microsoft auch in Sachen Sicherheit Initiative ergriffen. Neben den Sicherheits-Fixes, die beim Windows Update automatisch auf den PC heruntergeladen werden, ist der neue „Microsoft Baseline Security Analyzer" (MBSA) besonders nützlich.

Wie wichtig dieses Tool ist, zeigt unser Test: Obwohl das automatische Update keinerlei fehlende Patches mehr moniert, zeigt MBSA mehrere Schwachstellen auf dem Rechner.

1 Das MBSA-Tool finden Sie, indem Sie auf der Homepage www.microsoft.de auf das Icon „Get secure - stay secure" sowie auf „Tools and Services" and „Microsoft Baseline Security Analyzer" auf den Folgeseiten klicken. Mit einem Klick auf den Link unter „Download Now" laden Sie das rund 2,5 MByte große Diagnose-Tool herunter.

2 Beginnen Sie die Installation mit einem Doppelklick auf die EXE-Datei, and folgen Sie den weiteren Schritten. Nach Abschluss des Setups startet MBSA automatisch. Klicken Sie auf das Icon "Scan a computer". Im nächsten Schritt lassen Sie sämtliche Optionen aktiviert and beginnen die Sicherheitsüberprüfung mit "Start scan".

3 Nach weniger als einer Minute erscheint das Ergebnis, and die gravierendsten Lücken stehen ganz oben in der Liste. Die Option "How to correct this" erklärt, wie jede aufgedeckte Lücke zu beheben ist.



Die folgende Prozedur sieht - abhängig vom festgestelltem Problem - unterschiedlich aus. Hier müssen Sie sich notgedrungen durch die englischsprachige Erklärung („Solution") kämpfen. Einfach zu handhaben ist ein direkter Internet-Link, der wie beim „Windows Update" automatisch alle weiteren Schritte ausführt.

Damit Ihr PC wirklich sicher ist, gehen Sie jede monierte Schwachstelle an and beheben sie nach der Anleitung!

TIPP Updates dokumentieren

Nach drei Wochen wissen Sie bei mehreren Dutzend Patches garantiert nicht mehr, welche Sie bereits installiert haben and welche nicht. Dokumentieren Sie deshalb genau, welche Tools bereits auf dem Rechner sind. Dazu markieren Sie beim automatischen Windows Update die im Web-Browser angezeigte Liste, and übertragen den Inhalt mit "Strg"+"V" in die Zwischenablage. Fügen Sie diese Liste in einem Textdokument, beispielsweise in Word, wieder ein and speichern die Datei oder drucken sie aus.

Alter

Geschlecht

Muttersprache

Englisch

zum Abitur ○ an der Uni ○

Englischkenntnisse

schlecht ○ mittelmäßig ○ gut ○ sehr gut ○

---

1. Wie viele Anglizismen gibt es in diesem Artikel?

sehr wenig ○ wenig ○ genug ○ viele ○ zu viele ○

---

2. Welche Wörter Ihrer Meinung nach sind Anglizismen? Bitte begründen Sie Ihre Antwort.

Homepage Ja ○ **oder** nein ○ Warum

Installation Ja ○ **oder** nein ○ Warum

aktivieren Ja ○ **oder** nein ○ Warum

Sicherheitscheck Ja ○ **oder** nein ○ Warum

Sicherheitsüberprüfung Ja ○ **oder** nein ○ Warum

---

3. Erleichtern die Anglizismen Ihr Gesamtverständnis des Artikels?

Ja ○ **oder** nein ○

---

4. Gibt es Wörter, die Sie nicht verstehen?

ja ○ **oder** nein ○

Wenn ja . welche und wieso?

---

5. Bitte wählen Sie das Wort aus. das Sie am häufigsten im Bereich der Informatik benutzen

Rechner ○	**oder**	Computer ○
Bildschirm ○	**oder**	Monitor ○
Tastatur ○	**oder**	Keyboard ○
Verknüpfung ○	**oder**	Link ○
Werkzeug ○	**oder**	Tool ○
hinaufladen ○	**oder**	uploaden ○
herunterladen ○	**oder**	downloaden ○
verbinden ○	**oder**	konnektieren ○

Kommentar

---

6. Wenn die englischen Wörter im Text in Deutsch wären. wie würde das Ihr Verständnis des Textes beeinflussen? (Zum Beispiel. Tool > Werkzeug)

schlechter ○ gleich ○ besser ○

---

7. Was halten Sie von Wörtern. die halb englisch halb deutsch sind. zum Beispiel Sicherheitscheck . Im Vergleich zu anderen Wörtern. a) die nur Deutsch sind.

sehr schwer ○ schwer ○ gleich ○ leicht ○ sehr leicht ○

und b) die nur Englisch sind?

sehr schwer ○ schwer ○ gleich ○ leicht ○ sehr leicht ○

8. Denglisch ist supercool... oder der Einfluss von Englisch auf die deutsche Sprache

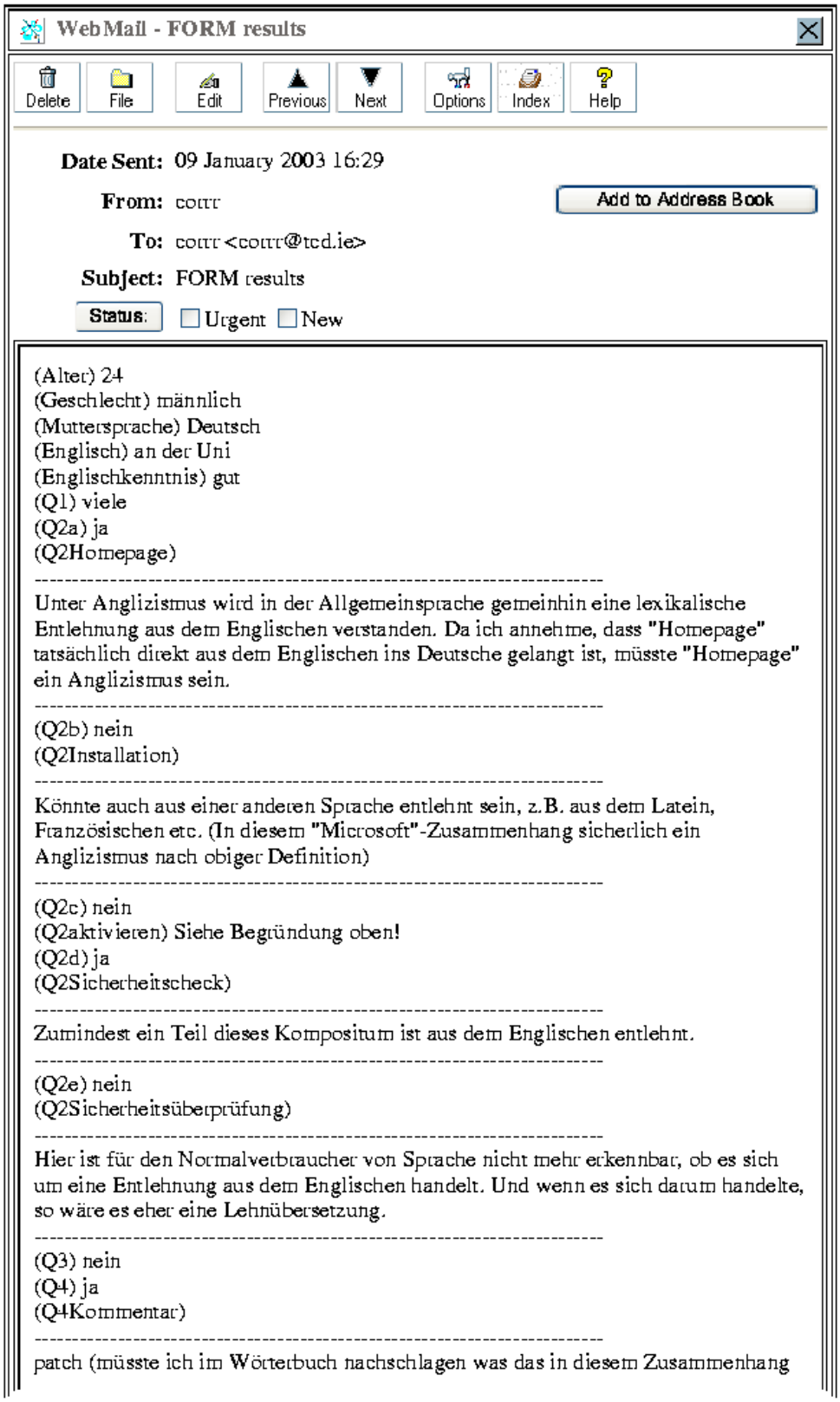
- Ist ganz normal Englisch beeinflusst meine eigene Muttersprache ebenfalls sehr.
- Was soll man machen. Englisch ist eben DIE Weltsprache.
- Es ist gut, dass sich Sprachen verändern und weiterentwickeln.
- Denglisch ist keine sprachliche Weiterentwicklung.
- Ich hasse Denglisch!
- Dieses Thema interessiert mich absolut nicht!
- Im Englischen gibt es doch auch eine Menge deutscher Wörter!

Kommentar

Schicken

Vielen Dank für Ihre Teilnahme, sie wird sehr geschätzt!

14.8 Appendix H - Sample Survey Response



WebMail - FORM results

Delete | File | Edit | Previous | Next | Options | Index | Help

Date Sent: 09 January 2003 16:29

From: corrr — Add to Address Book

To: corrr <corrr@tcd.ie>

Subject: FORM results

Status: ☐ Urgent ☐ New

(Alter) 24
(Geschlecht) männlich
(Muttersprache) Deutsch
(Englisch) an der Uni
(Englischkenntnis) gut
(Q1) viele
(Q2a) ja
(Q2Homepage)

Unter Anglizismus wird in der Allgemeinsprache gemeinhin eine lexikalische Entlehnung aus dem Englischen verstanden. Da ich annehme, dass "Homepage" tatsächlich direkt aus dem Englischen ins Deutsche gelangt ist, müsste "Homepage" ein Anglizismus sein.

(Q2b) nein
(Q2Installation)

Könnte auch aus einer anderen Sprache entlehnt sein, z.B. aus dem Latein, Französischen etc. (In diesem "Microsoft"-Zusammenhang sicherlich ein Anglizismus nach obiger Definition)

(Q2c) nein
(Q2aktivieren) Siehe Begründung oben!
(Q2d) ja
(Q2Sicherheitscheck)

Zumindest ein Teil dieses Kompositum ist aus dem Englischen entlehnt.

(Q2e) nein
(Q2Sicherheitsüberprüfung)

Hier ist für den Normalverbraucher von Sprache nicht mehr erkennbar, ob es sich um eine Entlehnung aus dem Englischen handelt. Und wenn es sich darum handelte, so wäre es eher eine Lehnübersetzung.

(Q3) nein
(Q4) ja
(Q4Kommentar)
---
patch (müsste ich im Wörterbuch nachschlagen was das in diesem Zusammenhang

bedeuten soll)

(Q5a) Computer
(Q5b) Bildschirm
(Q5c) Tastatur
(Q5d) Verknüpfung
(Q5e) Tool
(Q5f) uploaden
(Q5g) herunterladen
(Q5h) verbinden
(Q6) gleich
(Q7a) gleich
(Q7b) gleich
(Q8Kommentar)

Englisch ist im Moment die dominierende Sprache auf der internationalen Bühne. Und das in den verschiedensten Bereichen. Ich glaube, dass sich viele Entlehnungen nicht lange halten werden. Und besonders sprachliche Entlehnungen, die gleichzeitig Sachentlehnungen sind, wie im Bereich der Informatik, werden wahrscheinlich verschwinden sobald die "Sachen" verschwinden. Ich glaube nicht, dass Entlehnungen aus dem Englischen eine Gefahr darstellen. Es nervt mich aber oft, wenn Unternehmen englische Wörter benutzen, nur um "cooler" zu wirken. (Siehe Deutsche Bahn, BP, Deutsche Telekom und andere).
Viel Glück mit dem Projekt!

Chapter 15

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