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ANWALTPARTNERSCHAFT mbB

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Copyright Software Protection: In Peril or in Flux?

Lessons from CJEU
SAS Institute/World Programming

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Copyright software protection under European law

- (EU) Computer Program Directive 2009/24/EC

1. Copyrighted subject matter

Art. 1 EU Computer Program Directive

- Protection of computer programs as “literary works”
- Ideas and principles underlying the computer program not protected

1. Copyrighted subject matter

**CJEU C-406/10 -
*SAS Institute Inc. / World Programming Ltd.***



Providing software solutions since 1976



1. Copyrighted subject matter

CJEU C-406/10 - *SAS Institute Inc. / World Programming Ltd.*

facts:

- The SAS System enables users to write and run their own application programs in order to adapt the SAS System to work with their data (Scripts). Such Scripts are written in a language which is peculiar to the SAS System (‘the SAS Language’).
- World Programming produced an alternative software capable of executing application programs written in the SAS Language.

1. Copyrighted subject matter

CJEU C-406/10 - *SAS Institute Inc. / World Programming Ltd.*

held:

- Copyright protection for computer programs
 - neither protects the functionality of a computer program
 - nor the programming language
 - nor the format of data files used in a computer program

1. Copyrighted subject matter

- The code is copyrighted, if (individual) **expression in any form**:
 - Copyright protection through e.g. the (individual)
 - **Phrasing of code**;
 - **Structure and organization of the program**;
 - **Collection, selection and arrangement of commands**.

1. Copyrighted subject matter

The Code: Copyright protection as works of language

Machine Code

```
45 6D 62 72 6F 69 64 65 72 79 20 64 69 73 6B 20 ; Embroidery dis
63 72 65 61 74 65 64 20 75 73 69 6E 67 20 73 6F ; created using so
66 74 77 61 72 65 20 6C 69 63 65 6E 73 65 64 20 ; ftware licensed
66 72 6F 6D 20 56 69 6B 69 6E 67 20 53 65 77 69 ; from Viking Sewi
6E 67 20 4D 61 63 68 69 6E 65 73 20 41 42 2C 20 ; ng Machines AB,
53 77 65 64 65 6E 0C 43 79 62 65 72 2D 6B 61 75 ; Sweden.Cyber-kau
66 31 63 52 2F 28 27 1A 09 00 00 00 00 00 00 ; fIcR/('.....
00 77 77 77 77 77 00 00 00 00 00 00 00 00 ; ~~~~~.....
00 00 00 00 00 00 77 77 77 77 77 77 77 77 ; .....~
77 70 00 00 00 00 00 00 00 00 00 00 07 77 77 ; ~~~~~.....~
77 77 77 77 77 77 77 77 77 77 77 70 00 00 00 ; ~~~~~~op....
00 00 00 00 00 77 77 77 77 77 77 77 77 77 ; .....~
77 77 77 77 00 00 00 00 00 00 00 00 77 77 77 ; ~~~~~.....~
77 77 77 77 77 77 77 77 77 77 77 77 00 00 00 ; ~~~~~~op.....
00 00 00 77 77 77 77 77 77 77 77 77 77 77 ; .....~
77 77 77 77 77 70 00 00 00 00 77 77 77 77 ; ~~~~~op...~
77 77 77 77 77 77 77 77 77 77 77 77 00 00 ; ~~~~~~op.....
00 00 77 77 77 77 77 77 77 77 77 77 77 77 ; .....~
77 77 77 77 77 77 70 00 00 00 77 77 77 77 ; ~~~~~op...~
77 77 77 77 77 77 77 77 77 77 77 77 77 00 ; ~~~~~~op.....
00 07 77 77 77 77 77 77 77 77 77 77 77 77 ; .....~
77 77 77 77 77 77 70 00 07 77 77 77 77 77 ; ~~~~~op...~
77 77 77 09 09 99 99 97 77 77 77 77 77 77 ; ~~~~~~op.....
00 77 77 77 77 77 77 00 00 09 99 99 99 99 ; .....~
97 77 77 77 77 77 70 00 77 77 77 77 77 77 ; ~~~~~op...~
00 99 99 99 99 99 99 99 77 77 77 77 77 ; ~~~~~~op.....
```

Object Code

Address	Label	Instruction (AT&T syntax)	Object code ^[21]
		.begin	
		.org 2048	
	a_start	.equ 3000	
2048		ld length,%t	
2064		be done	00000010 10000000 00000000 00000110
2068		addcc %r1,-4,%r1	10000010 10000000 01111111 11111100
2072		addcc %r1,%r2,%r4	10001000 10000000 01000000 00000010
2076		ld %r4,%r5	11001010 00000001 00000000 00000000
2080	ba loop		00010000 10111111 11111111 11111011
2084		addcc %r3,%r5,%r3	10000110 10000000 11000000 00000101
2088	done:	jmp1 %r15+4,%r0	10000001 11000011 11100000 00000100
2092	length:	20	00000000 00000000 00000000 00010100
2096	address:	a_start	00000000 00000000 00001011 10111000
		.org a_start	
3000	a:		

Source Code

Dies ist ein einfacher Arc-Agent in der Programmiersprache C. Er migriert zu einem Ort namens store (hier: einfach ein Rechenname) und druckt dort eine Meldung.

```
#include <stdio.h>
#include <arcface.h>

int
main(int argc, char* argv[])
{
    char homeString[AAA_PLACENAME_SPACE];
    Arc_Placename home = Arc_Here(), destination = Arc_PlacenameCreate("thor");

    Arc_Go(AAA_ID_MOVE, destination, AAA_ALLOWANCE_MOVE, AAA_ALLOWANCE_MOVE);

    Arc_PlacenamePrint(home, homeString);
    printf("Hello at thor, I've come from %s!\n", homeString);

    Arc_PlacenameDelete(home);
    Arc_PlacenameDelete(destination);
    Arc_Exit(0);

    /* Never reached */
    return -1;
}
```


1. Copyrighted subject matter

- **‘Expression in any form’** of a computer program in general does not include the result (functionality) of the computer program.
- Such results remain outside the protection of the Computer Program Directive
 - “...*protection only covers the individual expression of the work and leaves other authors the desired latitude to create similar or even identical programs provided that they refrain from copying.*”
(CJEU C- 406/10 para. 41 - *SAS Institute Inc. / World Programming Ltd.*)

1. Copyrighted subject matter

- ‘**Expression in any form**’ of a computer program in general does not include the result (functionality) of the computer program.
- But protection under “ordinary” EU copyright regime (e.g. Directive 2001/29):
 - **Software graphic user interface** (CJEU C-393/09, *Bezpečnostní softwarová asociace (BSA) / Svaz softwarové ochrany v Ministerstvo kultury*;
problem for applied art: EU Design Directive leaves level of originality to member states
 - **Computer games** (CJEU C-355/12 – *Nintendo*): graphic and sound elements protected according to Directive 2001/29

1. Copyrighted subject matter

- **‘Expression in any form’** of a computer program in general does not include the result (functionality) of the computer program.
- But protection under other IP rights, e.g.
 - Patents;
 - Designs;
 - Trademarks.

2. Exceptions and limitations, infringement

**CJEU C-406/10,
*SAS Institute Inc. / World Programming Ltd.***

facts:

- See above, World Programming produced an alternative software capable of executing application programs written in the SAS Language.
- **It could not be shown by SAS that World Programming had access to the source code of the SAS components, copied any of the text of that source code or copied any of the structural design of the source code.**

2. Exceptions and limitations, infringement

CJEU C-406/10, *SAS Institute Inc.* – *World Programming Ltd.*

held:

- A person who has obtained a copy of a computer program under a license is entitled, without the authorization, to **observe, study or test the functioning of that program to determine the ideas and principles which underlie any element of the program.**
- Under condition that person carries out acts covered by that license and acts of loading and running necessary for the use of the computer program.

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