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Advocate General's Opinion in Case C-406/10
SAS Institute Inc. v World Programming Ltd

In Advocate General Bot's view, the functionalities of a computer program and the programming language cannot be protected by copyright

The source code of a program may, if certain conditions are met, be reproduced in order to ensure interoperability with another program

SAS Institute Inc. has developed an integrated set of programs which enables users to carry out data processing and analysis tasks, and in particular statistical analysis. The core component of the SAS System is known as Base SAS. It permits users to write and run application programs (also known as "scripts"), written in SAS programming language and enabling users to manipulate data. The functionality of Base SAS may be extended by the use of additional components.

When SAS Institute's customers wanted to run their SAS Language application programs or create new ones, they had, as a rule, no alternative but to continue to acquire a licence to be able to use the necessary components in the SAS System. A customer wishing to change software supplier would need to re-write its existing application programs in a different language, which requires a considerable investment.

World Programming Ltd (WPL) perceived that there would be a market for alternative software which would be able to execute application programs written in SAS Language. It therefore created a product called World Programming System (WPS) to do this. WPS emulates much of the functionality of the SAS components, the aim being that customers' application programs should run in the same way on WPS as on the SAS components. In addition, to enable its program to access and process data previously stored by the customer in the SAS format, WPL has designed its program in such a way that it can understand and interpret that data format to ensure interoperability between the two programs.

Although there is no suggestion that WPL had access to, or copied, the source code¹ of the SAS components, SAS Institute brought an action in the United Kingdom seeking to establish that WPL's actions infringed copyright in its computer programs. In that context, the High Court of Justice (Chancery Division), hearing the case, has referred a number of questions to the Court of Justice for a preliminary ruling seeking clarification of the scope of the legal protection conferred by EU law – in particular by Directive 91/250/EEC² – on computer programs.

In his Opinion delivered today, Advocate General Bot recalls, as a preliminary point, that the protection conferred by Directive 91/250/EEC applies to the expression in any form of a computer program and not to the ideas and principles which underlie any element of a computer program. Thus, **the Advocate General takes the view that the protection of a computer program**

¹ The source code, which underlies a computer program, is written by the programmer. That code, composed of words, is intelligible to the human mind. However, it is not executable by the computer. To become so, it needs to be compiled so that it can be translated into binary-form computer language, usually the figures 0 and 1. This is known as the object code.

² Council Directive of 14 May 1991 on the legal protection of computer programs (OJ 1991 L 122, p. 42).

covers the literal elements of that program, that is to say, the source code and the object code, and also any other element expressing the creativity of its author³.

In the first place, with regard to the functionality of a computer program, the Advocate General defines it as the set of possibilities offered by a computer system – in other words, the service which the user expects from it.

Starting from that premiss, the Advocate General considers that the functionalities of a computer program are not eligible, as such, for copyright protection. The functionalities of a computer program are in fact dictated by a specific and limited purpose. In this, they are similar to ideas. That is why there may be a number of computer programs offering the same functionalities. Thus, **if it were accepted that a functionality of a computer program can be protected as such, that would amount to making it possible to monopolise ideas,** to the detriment of technological progress and industrial development.

By contrast, **the means for achieving the concrete expression of the functionalities of a program may be protected by copyright. Creativity, skill and inventiveness are expressed in the way in which the program is drawn up, in its writing.** Thus, the way in which formulae and algorithms are arranged – like the style in which the computer program is written – will be likely to reflect the author's own intellectual creation and therefore be eligible for protection

The Advocate General therefore takes the view that, as is the case with other works that may be protected by copyright, the fact of reproducing a substantial part of the expression of the functionalities of a computer program may constitute an infringement of copyright. In the present case, he concludes that **the national court will have to consider whether, in reproducing the functionalities of the SAS System in its computer program, WPL reproduced a substantial part of the elements of the SAS System which are the expression of SAS Institute's own intellectual creation.**

In the second place, the Advocate General considers that a programming language cannot, as such, be protected by copyright. Since programming language is an element which allows instructions to be given to the computer, it must be compared, for example, with the language used by the author of a novel. **Programming language is thus the means which permits expression to be given, not the expression itself.**

Finally, the Advocate General provides some clarification on the question whether WPL was entitled to reproduce the SAS code or to translate the form of the SAS data formatting code into its program in order to ensure interoperability between the SAS system and its own system (WPS).

In that regard, the Advocate General concludes that, **subject to two conditions, the holder of a licence to use a computer program may, without the author's authorisation, reproduce the program code or translate the form of the code of a data format in that program so as to write, in his own computer program, a source code which reads and writes that data format.** First, that operation must be absolutely indispensable for the purposes of obtaining the information necessary to achieve interoperability between the elements of the various programs. Second, that operation must not have the effect of enabling the licensee to recopy the code of the computer program in his own program, a question which it will be for the national court to determine.

NOTE: The Advocate General's Opinion is not binding on the Court of Justice. It is the role of the Advocates General to propose to the Court, in complete independence, a legal solution to the cases for which they are responsible. The Judges of the Court are now beginning their deliberations in this case. Judgment will be given at a later date.

³ Amongst other things, preparatory design work, where it leads to the creation of a program, is also protected by copyright applicable to computer programs. That design work can include, for example, a structure or organisational chart developed by the programmer which is liable to be re-transcribed in source code and object code, thus enabling the machine to execute the computer program. That organisational chart developed by the programmer could be compared to the scenario of a film (see the Opinion in Case [C-393/09](#)).

NOTE: A reference for a preliminary ruling allows the courts and tribunals of the Member States, in disputes which have been brought before them, to refer questions to the Court of Justice about the interpretation of European Union law or the validity of a European Union act. The Court of Justice does not decide the dispute itself. It is for the national court or tribunal to dispose of the case in accordance with the Court's decision, which is similarly binding on other national courts or tribunals before which a similar issue is raised.

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The [full text](#) of the Opinion is published on the CURIA website on the day of delivery.

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