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**Datasheet for the decision
of 14 March 2012**

Case Number: T 0980/08 - 3.5.06

Application Number: 03007758.0

Publication Number: 1351137

IPC: G06F 9/445

Language of the proceedings: EN

Title of invention:

Internet-enabled boot loader and booting method

Applicant:

Intrinsyc Software International, Inc.

Headword:

Internet-enabled boot loader/INTRINSYC SOFTWARE

Relevant legal provisions:

EPC R. 100(1), 137(3)

RPBA Art. 12(4)

Relevant legal provisions (EPC 1973):

EPC Art. 78(1)(c), 113(2)

Keyword:

Amended claims filed with grounds of appeal
Attempt to overcome the objections raised by the decision
under appeal [no]- new subject-matter which could have been
presented in the first instance proceedings [yes]- implying
full examination [yes]- admitted [no]

Decisions cited:

G 0010/93

Catchword:

Claims filed with statement of grounds of appeal (not
admitted), see reasons, point 4



Case Number: T 0980/08 - 3.5.06

D E C I S I O N
of the Technical Board of Appeal 3.5.06
of 14 March 2012

Appellant:
(Applicant)

Intrinsyc Software International, Inc.
700 West Pender Street, 10th Floor
Vancouver
British Columbia V6C 1G8 (CA)

Representative:

Jorio, Paolo
Studio Torta S.p.A.
Via Viotti, 9
I-10121 Torino (IT)

Decision under appeal:

**Decision of the Examining Division of the
European Patent Office posted 1 February 2008
refusing European patent application
No. 03007758.0 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman: D. H. Rees
Members: A. Teale
M.-B. Tardo-Dino

Summary of Facts and Submissions

- I. The appeal is against the decision by the examining division, dispatched on 1 February 2008, to refuse European patent application No. 03 007 758.0 on the basis that the claimed subject-matter according to the then main request did not involve an inventive step and the application amended according to the then auxiliary request did not satisfy Articles 84 EPC 1973 and 123(2) EPC.
- II. A notice of appeal against the decision in its entirety was received on 9 April 2008, the appeal fee being paid on the same date. The appellant requested that the decision be set aside and that an application be granted on the basis of the statement of grounds of appeal. If this request was not allowed then the appellant requested oral proceedings.
- III. A statement of grounds of appeal was received on 14 May 2008 together with a set of amended claims. The appellant withdrew the main and auxiliary requests containing the claims on which the decision had been based and requested that the appeal procedure continue with the claims filed with the statement of grounds of appeal.
- IV. The board gave its preliminary opinion on the appeal in an annex to a summons to oral proceedings, expressing *inter alia* doubts as to whether the amended claims should be admitted into the procedure, Article 12(4) RPBA (Rules of Procedure of the Boards of Appeal, OJ EPO 2007, 536). It also argued that there were

objections to the new claims with respect to Articles 84 EPC 1973 and 123(2) EPC.

V. In a letter received on 15 February 2012 the appellant stated that it would not be attending the oral proceedings. The appellant also withdrew its request for oral proceedings and requested a decision on the state of the file. The appellant did not submit amendments or otherwise comment on the substance of the case or on the objection raised under Article 12(4) RPBA by the board in the annex to the summons to oral proceedings.

VI. The registry of the board issued a communication dated 16 February 2012 on behalf of the board stating, for the avoidance of doubt, that the oral proceedings would take place as scheduled.

VII. Oral proceedings took place on 14 March 2012 in the absence of the appellant, as announced in advance. The board noted that the appellant requested that the decision under appeal be set aside and a patent be granted, the text of the sole request being as follows:

Description:

Pages 1, 2 and 4 to 22 as originally filed
Page 3, received on 10 February 2006.

Claims:

1 to 8, received with the statement of grounds of appeal.

Figures:

1 to 5, received on 27 June 2003.

At the end of the oral proceedings the board announced its decision.

VIII. Claim 1 according to the then main request on which the decision was based reads as follows:

"A boot loader (10) for a device having a IP stack (16) containing an address discovery service, a URI to IP address translator and one or more internet file transfer protocols, characterized by comprising:
a) a scripting engine (20) operative to use a default script to initialize [sic] said device, including validating partitions (SPT,PPT) in memory on said device; and
b) a boot loader operating system (12) and drivers (14) operative to use said Internet file transfer protocols (18) to download an operating system over the Internet."

The set of claims according to this request also comprised an independent claim directed to a method of booting a device.

IX. Claim 1 according to the then auxiliary request on which the decision was based is, editorial amendments aside, the same as that of the main request except that the following passage has been added at the end:

"said boot loader being configured to check (52) for a bootable partition in said memory; if no bootable partition is found a script being downloaded from a remote server and run (82) to recover the partition (76)."

The set of claims according to this request also comprised an independent claim directed to a method of booting a device.

X. Claim 1 filed with the statement of grounds of appeal reads as follows:

"A boot loader for a device comprising:

- a boot loader operating system (12) and drivers (14);
- an IP stack (16) containing an address discovery service, a URI to IP address translator and one or more Internet file transfer protocols (18); and
- a scripting engine (20) operative to use a default script (22) to initialize and boot said device, including:

. verifying the integrity of any partition, data and operating system in memory on said device, wherein said scripting engine uses a default script to verify the primary and the secondary partition tables in memory on said device (FIG 2), said primary partition table and said secondary partition table being identical in content, said content being partition metadata describing one or more partitions in memory, wherein said default script performs partition table validity checking comprising the steps of:

- a) determine the validity of said primary partition table (30) and using (30) said primary partition metadata (FIG 6) in the case of said primary partition table being determined valid;
- b) determine the validity of said secondary partition table (34) and using said secondary partition metadata (FIG 6) in the case of said primary partition table being determined invalid (34) and replacing (38) said

primary partition table with said secondary partition table (36);

c) in the case that said primary and secondary partition tables both being invalid, creating a primary partition table and a secondary partition table and initializing both to an empty state

. determining if said partition in memory is bootable wherein determination comprises the steps of:

i) reading said partition table;

ii) determining if said partition table has a bootable partition, and on determining said bootable partition does not exist, performing the steps of:

- reading a partition header script URI from the partition table header associated with said partition table;

- translating said partition header script URI into an IP address using said IP stack (16) address discovery service to locate a remote server on the Internet;

- downloading a recovery script (18) from said remote server having used said IP address and one or more Internet file transfer protocols to locate said remote server; and

- checking if said download was successful (56), and if successful running said downloaded recovery script (58) to create a bootable partition according to the recovery script

. checking said bootable partition for a multiple partition chain (70), and on determining a multiple partition chain exists, validating each partition of said multiple partition chain by performing the steps of:

a) loading the next partition header associated with the partition in the chain; (72)

b) determining if said partition header is invalid or if the partition update flag is set (74) associated with said partition, and if determined invalid or requiring update, performing the steps of:

- i) reading a partition entry script URI from the partition table header associated with said partition;
- ii) translating said partition entry script URI into an IP address using said IP stack (16) address discovery service to locate a remote server on the Internet;
- iii) downloading a partition entry script (18) from said remote server having used said IP address and one or more Internet file transfer protocols to locate said remote server;
- iv) checking if said download was successful (80), and if successful running said downloaded partition entry script (82) to create a partition and generate content for said partition;
- v) processing said partition (76); and
- vi) on determining said bootable partition exists and having verified and processed all partitions, said scripting engine (20) causes the operating system to boot and run the first bootable partition in the chain (88)."

The set of claims according to this request also comprised an independent claim directed to a method of booting a device.

Reasons for the Decision

1. *The admissibility of the appeal*

In view of the facts set out at points I, II and III above, the appeal is admissible, since it complies with the EPC formal admissibility requirements.

2. *The appellant's absence at the oral proceedings*

2.1 As announced in advance, the duly summoned appellant did not attend the oral proceedings.

2.2 The purpose of oral proceedings is to give the party the opportunity to present and expand orally its written case and convince the board of the merits of its submissions. However if a party gives up that opportunity the proceedings may continue without it (Rule 71(2) EPC 1973).

2.3 In accordance with Article 15(3) RPBA, the board relied for its decision on the appellant's written submissions. The board, with respect to Article 113(1) EPC 1973, was in a position to decide at the conclusion of the oral proceedings, since the case was ready for decision (Article 15(5, 6) RPBA), and the voluntary absence of the appellant was not a reason for delaying a decision (Article 15(3) RPBA), indeed the appellant had requested a decision on the state of the file in its last submission.

3. *The context of the invention*

3.1 The invention relates to boot loaders. These are programs for loading an operating system into the memory of a computer and then handing control to that operating system. The boot loader accesses boot information via the Internet for automatically providing, upgrading and recovering device images using a unique device ID. A boot loader can give a user a choice between several operating systems by creating partitions in memory, each partition including a single operating system or user data. The application is directed to embedded devices, such as PDAs and mobile phones, in particular updating or replacing corrupted software of such devices without the need to send the device back to the manufacturer for repair. The boot loader can load a device image (partition) from the Internet using Internet protocols such as HTTP (Hypertext Transfer Protocol). This can, for example, occur as part of an updating feature or an automatic disaster recovery feature from device corruption. The boot loader is operated by a scripting language which may contain instructions to periodically check for updates or to download and execute further scripts from the Internet.

3.2 More specifically, the boot loader comprises an "IP stack" supporting Internet protocols for file transfer over the Internet and an "address discovery service" for obtaining an IP address from a configuration server. The boot loader also comprises a URI to IP address translator which translates domain names meaningful to humans into the numerical identifiers associated with networking equipment for the purpose of locating and

addressing these devices worldwide. The boot loader also has a "scripting engine" to run a default script to initialize the device and verify the integrity of any data and operating systems in device memory.

- 3.3 The default script generates and verifies a primary and a secondary partition table in device memory. The two partition tables have identical content which is "partitional metadata" describing one or more partitions in device memory. At device start up the boot loader attempts to verify the redundant partition tables. If they do not exist or an update flag is set the unique device ID is retrieved and the recovery script is used to create the partition tables by downloading scripts and/or data from the Internet. If only one redundant partition table is invalid then it is recovered using the other one. Having validated the partition tables, the boot loader runs a start-up script to check for updates and to repair or replace corrupted software.

4. *The admittance of the amended claims into the proceedings*

- 4.1 According to Article 12(1) RPBA, *ex parte* appeal proceedings shall be based *inter alia* on the notice of appeal and statement of grounds of appeal, Article 12(1)(a) RPBA. As an exception to this, Article 12(4) RPBA foresees that the board can hold inadmissible facts, evidence or requests which could have been presented in the first instance proceedings.

- 4.2 In the present case the board stated in its preliminary opinion in the annex to the summons to oral proceedings

that the claims filed with the statement of grounds of appeal were not restricted forms of those forming the basis of the decision. In particular, the feature of downloading "an operating system over the Internet" had been removed and many features have been added. Hence the amendments did not cause the procedure to converge, but instead created a new case on appeal. This raised the question of whether such amendments could not have been presented before the examining division. The appellant has not challenged this objection or submitted any counter-arguments to it.

- 4.3 Since the feature set out in claim 1 according to both the main and the auxiliary request upon which the decision was based of downloading "an operating system over the Internet" is no longer present in claim 1 according to the appellant's only request, claim 1 now covers subject-matter not falling under the claims according to the appealed decision. Consequently the appeal does not represent an attempt to overcome the objections leading to the refusal of the application but rather to obtain a patent on the basis of subject-matter significantly different from that considered by the examining division. The majority of the features now set out in claim 1 were also not present in the independent claims forming the basis of the appealed decision. For example, the features of verifying the validity of partition tables, determining whether partition tables are bootable, downloading a recovery script and determining whether a multiple partition chain exists were not set out in claim 1 according to the main and auxiliary request forming the basis of the decision. Furthermore the appellant has not provided any explanations why such a major shift in the subject-

matter under discussion is warranted at the appeal stage of this procedure.

- 4.4 At this point the board refers to the principles governing *ex parte* proceedings as set out in G 10/93 (OJ EPO 1995, 172). It is true that, since the judicial examination in *ex parte* proceedings concerns the stage prior to grant and lacks a contentious nature, the boards are restricted, in their review of the decision under appeal, neither to the examination of the grounds for the contested decision nor to the facts and evidence on which the decision is based. But this absence of restriction does not amount to a positive obligation for the boards to consider any request filed in appeal especially when the requests bring about a new case. As stated in G 10/93, "proceedings before the boards of appeal in *ex parte* cases are primarily concerned with examining the contested decision", and the power accorded to the boards "does not however mean that boards carry out a full examination of the application as to the patentability requirements". In other words, applying the principle to the present case, the appeal proceedings are intended to review the correctness of the decision of the first instance rather than to continue examination by other means. The factual position regarding substantive issues when the appellant filed the amended claims with the statement of grounds of appeal was the same as that in the oral proceedings before the first instance. Moreover the appellant did not put forward any explanation as to why it had not filed these new claims before the department of first instance. Nor did the appellant contest the objections under Articles 84 EPC 1973 and 123(2) EPC raised by the board in the annex to the summons to oral

proceedings. Hence the board comes to the conclusion that there is no obligation and indeed no reason to start a full examination of the present amended claims which could have been presented in the first instance proceedings.

- 4.5 Consequently the board decided not to admit the amended claims filed with the statement of grounds of appeal into these appeal proceedings, Article 12(4) RPBA and Article 123(1) EPC in conjunction with Rules 137(3) and 100(1) EPC.

5. *Conclusion on the appellant's requests*

Under Article 113(2) EPC 1973 the European Patent Office shall consider and decide upon the European patent application only in the text submitted to it, or agreed, by the applicant. In the present case, since the board did not admit the amended claims filed with the grounds of appeal into the proceedings, the application according to the appellant's only request lacked any claims either submitted or agreed by the appellant, contrary to Article 78(1)(c) EPC 1973. The appealed decision could therefore not be set aside.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

B. Atienza Vivancos

D. H. Rees