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Subject: Re: Globally Unique IDs (GUIDs)  
Posted by [Joerg von Lingen](#) on Tue, 20 Apr 2004 06:35:43 GMT  
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Hello,

with regard to rolling stock there is no need to invent new GUIDs. Every railway operator use a numbering system for his rolling stock to indentify each single vehicle. Thus it would be simple to use the operator abbreviation, eg. SBB for Swiss Federal Railway, plus the operators vehicle number.

The advantage would be, that such GUIDs are human readable - means everyone could understand what an identifier like "DB 425 201-1" stands for.

With regard to IP or MAC address: up-to-date desktop computers are normally fitted with a network interface, but there are units without. And, as far as I know, even the MAC address can be manipulated by software.

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Regards,  
Joerg von Lingen  
Institut fuer Bahntechnik GmbH, Dresden

Nils Poldrack wrote the following on 05.04.2004 11:00:

- > Hello,
- >
- > Joachim Buechse from Ergon (CH) suggested on 2003-09-25 to use globally
- > unique
- > identifier for railML elements. He suggested to use the IP of the
- > creating computer concatenated with the milliseconds (e.g. since
- > 1970-01-01).
- >
- > In my "Instructions how to build a railML scheme" I adopted this proposal.
- > IPv4 and IPv6 create different spaces for their GUIDs.
- > Advantages of Joachim's proposal are:
- > - IP is easy to determine.
- > - The milliseconds since 1970-01-01 are easy to determine.
- > - There is not force to convert IPv4 to IPv6 or to pad the length.
- > - The saving format doesn't matter: HEX or Base64.
- > Disadvantages of Joachim's proposal are:
- > - No anonymity: via static IP it's possible to find the creator of the GUID.
- > - Not every computer has got an IP.
- >
- > Ulrich Linder made the suggestion to use the MAC instead of the IP:
- > there is anonymity and (almost) every PC has a network card and so a
- > MAC. (I don't know how to read the MAC - but this is a problem of the

> software engineer.)  
>  
> Please write me your opinion. I prefer Joachim's GUID but using MAC  
> instead of IP. Thank you there much for your statement.  
>  
> Nils Poldrack  
> IVI Dresden  
>  
> PS. Sorry for my "rusty" English.

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