



## Suggestions for a unique sample coding system for macro-invertebrate samples in “STAR”

Since most countries have already started sampling macro-invertebrate samples for “STAR”, the question of how to define **unique and standardized codes** for all different samples (AQEM/STAR, RIVPACS, IGBN, IBE, EBEOSWA, NORDIC, ‘main sample’, ‘replicate sample’) may rise up soon.

Ralph Clarke has recently suggested, to add one more digit in order to indicate whether AQEM/STAR or ‘national protocols’ and whether ‘main sample’ or ‘replicate sample’ are to be numbered. Others may suggest to add even another digit to indicate e. g. the sampled organism group.

However, the original restriction to an **eight-digit sample code** in AQEM should be maintained for two reasons!

1. Data input in **AQEMdip is restricted to eight-digit sample codes.**
2. Many statistical programs (e. g. CANOCO, SPSS, PC-ORD) and all DOS based analytical software packages are restricted to an eight-digit coding system at maximum (rows/columns). Thus, any analytical process of the data would require a re-coding of the sample code first. We should strictly **avoid to enlarge the sample code** in order not to get confused later on with re-coded codes and other handicaps!

A solution to the problem is presented below. Each sample (AQEM/STAR, other national protocols, ‘main sample’ replicate sample’) is coded individually with an eight-digit code. The code is composed of:

1<sup>st</sup> digit: *country abbreviation:*

D0300202

A = Austria	C = Czech Republic
D = Germany	F = France
H = Greece	I = Italy
K = Denmark	P = Portugal
S = Sweden	U = United Kingdom

2<sup>nd</sup> and 3<sup>rd</sup> digit: *stream type code:* The two-digit stream type code indicates samples belonging to the same (presumed) stream type. It does not necessarily have to follow e. g. the code 01 or 02 for core stream type 1 or 2, respectively, in each country, but it must be identical for all samples within the same core stream type/additional stream type!

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4<sup>th</sup> to 7<sup>th</sup> digit: *sample number:* The four-digit sample number allows to number up to 9999 different samples (don’t use ‘0000’ as a sample number).

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8<sup>th</sup> digit: *season code:* The sampled season is coded:

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1 = spring	2 = summer
3 = autumn	4 = winter

The table below shows an example of the coding system for the whole set of macro-invertebrate samples of core stream type 2, Germany, summer. In order to keep consistency with former (AQEM) data, the AQEM stream type code "03" for this stream type is maintained and used consistently. Samples are numbered consecutively:

site code	stream(-system)	method	main/replicate	Samples included in the replicate sampling are indicated in blue
D0300202	Stepenitz	AQEM/STAR	main	
D0300212	Eltingm.bach	AQEM/STAR	main	
D0300222	Rhin	AQEM/STAR	main	
D0300232	Örtze	AQEM/STAR	main	
D0300242	Aue	AQEM/STAR	main	
D0300252	Lachte	AQEM/STAR	main	
D0300262	Berkel	AQEM/STAR	main	
D0300272	Böhme	AQEM/STAR	main	
D0300282	Karthane	AQEM/STAR	main	
D0300292	Dinkel	AQEM/STAR	main	
D0300302	Issel	AQEM/STAR	main	
D0300312	Steuer	AQEM/STAR	main	
D0300322	Dinkel	AQEM/STAR	main	
D0300332	Stepenitz	AQEM/STAR	replicate	
D0300342	Issel	AQEM/STAR	replicate	
D0300352	Stepenitz	RIVPACS	main	
D0300362	Eltingm.bach	RIVPACS	main	
D0300372	Rhin	RIVPACS	main	
D0300382	Örtze	RIVPACS	main	
D0300392	Aue	RIVPACS	main	
D0300402	Lachte	RIVPACS	main	
D0300412	Berkel	RIVPACS	main	
D0300422	Böhme	RIVPACS	main	
D0300432	Karthane	RIVPACS	main	
D0300442	Dinkel	RIVPACS	main	
D0300452	Issel	RIVPACS	main	
D0300462	Steuer	RIVPACS	main	
D0300472	Dinkel	RIVPACS	main	
D0300482	Stepenitz	RIVPACS	replicate	
D0300492	Issel	RIVPACS	replicate	

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