Codes v.0.7

I. Coding instructions

- Code as much of the transcript as possible, even if you think that the text is not very relevant to "alignment"[1]. Since interviews are focussed on alignment, everything said during interview could be useful for further analysis. Code questions as well.
- Codes are prioritized. Please use the priorities in the following way:
  - High level codes – assign the code with highest priority.
  - Medium level codes – choose the code which fits best. Since 2 columns are used for coding ("Primary code" and "Secondary code"), use the "Primary code" column for the code that fits best, and the "Secondary code" column for second best fitting code. If more than 2 codes are applicable – write it in "Comments" field.
- Use "Comments" field as much as possible. It can be used for:
  - describing additional code categories (if code category is not in the list but you think it is important to have it);
  - listing other applicable codes;
  - explanations of "why" you chose particular code;
  - your interpretations of the text;
  - advices you may have for further analysis.

II. Codes

Transcripts should be coded using 3 levels of codes:

1. **High** abstraction level codes, based on research questions;
2. **Medium** level codes, based on code grouping – code categories;
3. **Low** level code is your interpretation of the text (in the Comments field), which is a statement summary.

II.1. High level codes: research questions

Priority range: 1 (highest) – 3 (lowest)
If several research questions are applicable to the same text statement in a transcript, it should be coded by using the code with the highest priority. The other codes should be mentioned in "Comments" column.
Try to use "P" and "B" codes as much as possible.

Priority	Research Question	Description
1	P - Problems, challenges	Problems and challenges related to alignment, or absence of alignment. Also includes "bad" practices.
2	B – experienced and expected Benefits	Suggestions on the way to improve alignment and expected benefits to be achieved by it. Also, current "good" alignment practices and their benefits.
3	C - Current alignment practices	Current practices – the description on how the alignment between requirements and V&V is handled. If a person mentions difficulties or problems related to current practices, then it should be coded as "P – Problems, challenges". If the text is about good current practices and their benefits, it should be coded "B – experienced and expected Benefits".

II.2. Medium level codes: categories

Text should be assigned one or two of the following categories.
Text is coded in 2 columns – "Primary code" and "Secondary code":
- If only one code is applicable – write it down in the "Primary code" column;
- If more than one code is applicable – write the best fitting code into "Primary code" column, and the second best suitable into the "Secondary code" column;
- If more than 2 codes are applicable – write it in "Comments" field.

If the category you want to assign is not among 1-12 categories, please use the 13th category "Other" and describe it in the "Comments" column.

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[1] Definition of alignment: Alignment between requirements and V&V is how methods, tools, processes, artefacts, measures, roles, practices, etc., are used in companies in order to coordinate requirements and V&V. It also includes reviews, such as requirements reviews by testers in order to check requirements testability and/or coverage by test cases.

No	Category Name	Description
1	TR - Traceability	Requirements–testing traceability. Includes not only traceability between requirements and test artifacts, but also traceability among requirements artifacts at different abstraction level, and among testing artifacts, as well as the traceability to code or source.
2	IC - Interactions, communication, people	Anything related to people or units interaction. Also includes interactions with vendors, suppliers. Communication barriers and lack of communication should be assigned this category as well.
3	FG - Feedback gathering	Feedback gathering related information, e.g. lessons learnt. Includes information on how feedback from project participants is being gathered and used within organization. This code particularly regards the information on how the interviewees receive feedback about their work. Also includes feedback from post-mortem analysis and from process assessments.
4	OP - Organization, processes	Anything related to organization structure, roles, processes, stakeholders. Also includes information regarding organizational change or process change.
5	CM - Configuration management	Information related to configuration management. Includes change management, change control, etc. Also includes the attitude towards changes. Does not include organization change – organizational or process changes should be assigned "Organization, processes" category.
6	PQ - Product quality aspects	Anything related to product quality. Could include quality requirements, reviews, as well as any quality related issues, such as importance of quality, lack of quality, tradeoffs between quality and functional requirements, system architecture and costs, etc. Process quality should be assigned "Organization, processes" category.
7	ME - Measurements	Any information about measurements related to artifacts, products, processes, etc. Includes key performance indicators, measurement needs, etc.
8	DE - Decisions	Anything related to decision making and distribution. If a particular role is in charge of it, please assign it to the "Organization, processes" category, otherwise use this category. This category is useful for coding information "between chairs" – things that can not be clearly assigned to a role.
9	TL - Tools	Includes information regarding tools, also presence or absence of tools.
10	RQ - Requirements	Anything related to requirements, excluding change management, process, quality requirements and tools, since these are separate categories.
11	TE - Testing	Anything related to testing, excluding change management, process and tools.
12	AR - Artifacts	Information about artifacts – all but requirements and testing. Includes architectural, design artifacts, code, etc.
13	OT - Other	Category that is not among 1-12 categories, but you consider it important. Please describe it in the "Comments" column.

Furthermore, when applicable, text should be assigned one of these categories. Use these codes only in cases when it is clear that information falls into these categories.

No	Extra-Category Name	Description
A	PL - Product lines engineering	Product lines engineering related information - anything regarding variability or product delta or domain (platform, generic components) or application (configurations, customized, unique end products) engineering.
B	OU - Outsourcing	Outsourcing related information.
C	OS - Open source	Open source related information.
D	AG – Agile	Agile software development related information.

III. Coding Example

Text	High and Medium Level Coding				Comments: Low Level Coding
	High Level	Medium Level			
	Research Question (1-3)	Group I (cat. 1-13)		Group 2 (cat. A-D)	
		Primary	Secondary		
A: Yes we tried to have testers in the requirements reviews, so they are there to kind of see, is this requirement testable?	B – experienced and expected Benefits	PQ – product quality aspects			Current alignment practice: Testers participating in requirements review
A. Variability should be more explicit on a detailed requirements level. A lot of times you have to be very explicit about the things which should be able to vary or not. Traditionally, it has been an area of concern as well. But it should be explicit in detailed requirements.	P - Problems, challenges	RQ - Requirements		PL - Product lines engineering	Variability is not explicitly defined