Overture Technical Report Series
No. TR-005

December 2020

Guidelines for using VDM Combinatorial Testing Features

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Document history

Month	Year	Version	Version of Overture.exe	Comment
December	2010		3.0.2	Initial version

Contents

Chapter 1

Introduction

Chapter 2

Combinatorial Testing Syntax

```
traces definitions = ‘traces’, [ named trace, { ‘;’, named trace } ] ;

named trace = identifier, { ‘/’, identifier }, ‘:’, trace definition list ;

trace definition list = trace definition term, { ‘;’, trace definition term } ;

trace definition term = trace definition, { ‘|’, trace definition } ;

trace definition = trace binding definition
                 | trace repeat definition ;

trace binding definition = trace let def binding
                         | trace let best binding ;

trace let def binding = ‘let’, local definition, { ‘,’, local definition },
                        ‘in’, trace definition ;

trace let best binding = ‘let’, multiple bind, [ ‘be’, ‘st’, expression ],
                         ‘in’, trace definition ;

trace repeat definition = trace core definition, [ trace repeat pattern ] ;

trace repeat pattern = ‘*’
                     | ‘+’
                     | ‘?’
                     | ‘{’, numeric literal, [ ‘,’, numeric literal, ‘}’ ] ;

trace core definition = trace apply expression
                      | trace concurrent expression
                      | trace bracketed expression ;

trace apply expression = call statement ;
trace concurrent expression  =  ‘||’, ‘(’, trace definition,
                                 ‘,’, trace definition,
                                 { ‘,’, trace definition }, ‘)’ ;

trace bracketed expression  =  ‘(’, trace definition list, ‘)’ ;
```

Chapter 3

Combinatorial Testing Patternss

Chapter 4

Combinatorial Testing Examples