ABR specifications generated by SpecTRA

The following specifications 1 were generated by SpecTRA for ABR, to be used in conjunction.

Specifications 1: Conjunctive specifications for ABR. (BS: Buffer Size, DT[$-i$]: i^{th} last download time, BR: Bit Rate)

Precondition	**Precondition**
$BS \in [4.0, 5.0]$,	$BS \in [4.0, 5.0]$,
$DT[-1] \in [1.5, 6.6]$,	$DT[-1] \in [1.5, 10.5]$,
$DT[-2] \in [1.5, 7.9]$,	$DT[-2] \in [0.2, 7.9]$,
$DT[-3] \in [5.4, 10.5]$	$DT[-3] \in [1.5, 10.5]$
Postcondition	**Postcondition**
$BR \in \{300.0, 750.0, 1200.0, 2850.0\}$	$BR \in \{300.0, 750.0, 1200.0, 2850.0, 4300.0\}$
1	2

Precondition	**Precondition**	**Precondition**
$BS \in [4.0, 5.0]$,	$BS \in [4.0, 5.0]$,	$BS \in [4.0, 5.0]$,
$DT[-1] \in [2.8, 6.6]$,	$DT[-1] \in [2.8, 6.6]$,	$DT[-1] \in [2.8, 6.6]$,
$DT[-2] \in [1.5, 6.6]$,	$DT[-2] \in [1.5, 7.9]$,	$DT[-2] \in [2.8, 6.6]$,
$DT[-3] \in [5.4, 9.2]$	$DT[-3] \in [4.1, 10.5]$	$DT[-3] \in [5.4, 9.2]$
Postcondition	**Postcondition**	**Postcondition**
$BR \in \{300.0, 750.0, 2850.0\}$	$BR \in \{300.0, 750.0, 1200.0, 4300.0\}$	$BR \in \{300.0, 750.0\}$
3	4	5

Precondition
$BS \in [4.0, 5.0]$,
$DT[-1] \in [2.8, 6.6]$,
$DT[-2] \in [5.4, 10.5]$,
$DT[-3] \in [2.8, 6.6]$
Postcondition
$BR \in \{300.0, 750.0, 1200.0, 2850.0, 4300.0\}$

Precondition
$BS \in [4.0, 5.0]$,
$DT[-1] \in [2.8, 6.6]$,
$DT[-2] \in [6.6, 10.5]$,
$DT[-3] \in [2.8, 6.6]$
Postcondition
$BR \in \{300.0, 750.0, 1200.0\}$

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Precondition
$BS \in [4.0, 5.0]$,
$DT[-1] \in [2.8, 10.5]$,
$DT[-2] \in [1.5, 7.9]$,
$DT[-3] \in [1.5, 6.6]$
Postcondition
$BR \in \{300.0, 750.0, 1200.0, 2850.0\}$

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Precondition
$BS \in [4.0, 5.0]$,
$DT[-1] \in [5.4, 10.5]$,
$DT[-2] \in [1.5, 6.6]$,
$DT[-3] \in [1.5, 5.4]$
Postcondition
$BR \in \{300.0, 750.0, 1850.0\}$

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Precondition
$BS \in [4.0, 5.0]$,
$DT[-1] \in [5.4, 10.5]$,
$DT[-2] \in [1.5, 6.6]$,
$DT[-3] \in [1.5, 6.6]$
Postcondition
$BR \in \{300.0, 750.0, 1200.0\}$

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Precondition
$BS \in [4.0, 5.4]$,
$DT[-1] \in [1.5, 6.6]$,
$DT[-2] \in [1.5, 7.9]$,
$DT[-3] \in [4.1, 10.5]$
Postcondition
$BR \in \{300.0, 750.0, 1850.0, 2850.0\}$

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Precondition
$BS \in [4.0, 5.4]$,
$DT[-1] \in [5.4, 10.5]$,
$DT[-2] \in [1.5, 6.6]$,
$DT[-3] \in [1.5, 6.6]$
Postcondition
$BR \in \{300.0, 750.0, 1850.0, 2850.0, 4300.0\}$

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Precondition
$BS \in [4.0, 10.9]$,
$DT[-1] \in [0.2, 11.8]$,
$DT[-2] \in [0.2, 11.8]$,
$DT[-3] \in [0.2, 11.8]$
Postcondition
$BR \in \{300.0, 750.0, 1200.0, 1850.0, 4300.0\}$

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Precondition
$BS \in [4.0, 14.8]$,
$DT[-1] \in [0.2, 11.8]$,
$DT[-2] \in [0.2, 11.8]$,
$DT[-3] \in [0.2, 11.8]$
Postcondition
$BR \in \{300.0, 750.0, 1200.0, 1850.0, 2850.0\}$

Precondition
$BS \in [5.0, 6.1]$,
$DT[-1] \in [5.4, 9.2]$,
$DT[-2] \in [1.5, 5.4]$,
$DT[-3] \in [1.5, 5.4]$
Postcondition
$BR \in \{300.0, 750.0, 1200.0, 2850.0, 4300.0\}$

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Precondition
$BS \in [6.1, 7.5]$,
$DT[-1] \in [0.2, 4.1]$,
$DT[-2] \in [4.1, 10.5]$,
$DT[-3] \in [1.5, 6.6]$
Postcondition
$BR \in \{300.0, 750.0, 1850.0\}$

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Precondition
$BS \in [6.1, 7.8]$,
$DT[-1] \in [0.2, 4.1]$,
$DT[-2] \in [4.1, 10.5]$,
$DT[-3] \in [1.5, 6.6]$
Postcondition
$BR \in \{300.0, 750.0, 1850.0, 4300.0\}$

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Precondition
$BS \in [6.1, 7.8]$,
$DT[-1] \in [0.2, 4.1]$,
$DT[-2] \in [4.1, 11.8]$,
$DT[-3] \in [1.5, 6.6]$
Postcondition
$BR \in \{300.0, 750.0, 1200.0, 4300.0\}$

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Precondition
$BS \in [6.1, 8.2]$,
$DT[-1] \in [0.2, 4.1]$,
$DT[-2] \in [4.1, 10.5]$,
$DT[-3] \in [1.5, 6.6]$
Postcondition
$BR \in \{300.0, 750.0, 1850.0, 2850.0, 4300.0\}$

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Precondition
$BS \in [6.1, 10.6]$,
$DT[-1] \in [0.2, 4.1]$,
$DT[-2] \in [0.2, 11.8]$,
$DT[-3] \in [1.5, 11.8]$
Postcondition
$BR \in \{300.0, 750.0, 1200.0, 2850.0, 4300.0\}$

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Precondition
$BS \in [6.4, 7.5]$,
$DT[-1] \in [0.2, 4.1]$,
$DT[-2] \in [1.5, 5.4]$,
$DT[-3] \in [5.4, 11.8]$
Postcondition
$BR \in \{300.0, 750.0, 1200.0\}$

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Precondition
$BS \in [6.4, 7.8]$,
$DT[-1] \in [0.2, 4.1]$,
$DT[-2] \in [1.5, 5.4]$,
$DT[-3] \in [5.4, 9.2]$
Postcondition
$BR \in \{300.0, 750.0, 1850.0, 2850.0\}$

Precondition
$BS \in [7.5, 8.2]$,
$DT[-1] \in [0.2, 4.1]$,
$DT[-2] \in [1.5, 5.4]$,
$DT[-3] \in [5.4, 9.2]$
Postcondition
$BR \in \{300.0, 750.0, 1200.0\}$

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Precondition
$BS \in [7.8, 9.2]$,
$DT[-1] \in [0.2, 4.1]$,
$DT[-2] \in [5.4, 9.2]$,
$DT[-3] \in [2.8, 6.6]$
Postcondition
$BR \in \{300.0, 750.0, 1200.0\}$

Precondition
$BS \in [8.2, 8.9]$,
$DT[-1] \in [0.2, 4.1]$,
$DT[-2] \in [5.4, 9.2]$,
$DT[-3] \in [2.8, 6.6]$
Postcondition
$BR \in \{300.0, 750.0, 1850.0, 2850.0\}$

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Precondition
$BS \in [8.2, 9.6]$,
$DT[-1] \in [0.2, 4.1]$,
$DT[-2] \in [4.1, 9.2]$,
$DT[-3] \in [1.5, 6.6]$
Postcondition
$BR \in \{300.0, 750.0, 1200.0, 2850.0\}$

Precondition
$BS \in [8.5, 9.6]$,
$DT[-1] \in [0.2, 4.1]$,
$DT[-2] \in [0.2, 4.1]$,
$DT[-3] \in [2.8, 6.6]$
Postcondition
$BR \in \{300.0, 750.0, 1200.0\}$

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Precondition
$BS \in [8.5, 10.6]$,
$DT[-1] \in [0.2, 4.1]$,
$DT[-2] \in [0.2, 4.1]$,
$DT[-3] \in [5.4, 10.5]$
Postcondition
$BR \in \{300.0, 750.0, 1200.0\}$

Precondition
$BS \in [10.9, 12.0]$,
$DT[-1] \in [0.2, 5.4]$,
$DT[-2] \in [0.2, 5.4]$,
$DT[-3] \in [4.1, 7.9]$
Postcondition
$BR \in \{300.0, 750.0, 1200.0, 1850.0\}$

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Precondition

$BS \in [10.9, 12.3]$,

$DT[-1] \in [4.1, 7.9]$,

$DT[-2] \in [1.5, 6.6]$,

$DT[-3] \in [1.5, 5.4]$

Postcondition

$BR \in \{750.0, 1200.0, 1850.0, 2850.0, 4300.0\}$

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