Aperture Position Angle Special Requirements

Program, Obs(.Exposure_Spec)	Comment
DB populates special_requirements table unless noted as link_requirements table	
Introduction	
647 1 visits 1-3	observations have implicit GROUP WITHIN 53 DAYS sr and visits within an observation must execute at same APA (aperture position angle) DB: Group Visits {53.0 Days} {Nonint=FALSE} {ExclusiveInst=FALSE} DB: Visits Same PA
647 1 visits 1-3 V3 PA Range 95 to 295, see VP constraint ABSOLUTE ORIENT on each visit	observation level special requirement applies to ALL visits in that observation
Supported Formats for Aperture Position Angle Special Requirements	
{} are example argument_1, argument_2, argument_3, argument_4, argument_5	
647 1	APERTURE PA RANGE <min-angle> TO <max-angle> DB: Aperture PA Range {100} {300} <95.55..} {295.55..}
647 1	V3 PA RANGE <min-angle> TO <max-angle> DB: Aperture PA Range {100} {300} <95.55..} {295.55..}
647 2	APERTURE PA OFFSET FROM <observation> BY <min-angle> TO <max-angle> DB: link_requirements table Aperture PA Offset {2} {1} {0 Degrees} {180 Degrees}
647 3	V3 PA OFFSET FROM <observation> BY <min-angle> TO <max-angle> DB: link_requirements table V3 PA Offset {3} {1} {4.5 Degrees} {-175.5 Degrees}
647 5	SAME APERTURE PA <observation-list> DB: link_requirements table Same Aperture PA {4,5}
647 6	SAME V3 PA <observation-list> DB: link_requirements table Same V3 PA {4,6}
647 1	VISITS SAME PA DB: Visits Same PA
647 7	MSA SELECTED APERTURE PA <min-angle> TO <max-angle> insert into nirspec_msa_selected_angle (program, observation, visit, angle) values (647, 7, 1, 185) reload 647 pointing to correct DB GUI Implicit Requirements has: MSA Scheduled Aperture PA 323.49234 to 323.49234 Degrees (V3 185.0 to 185.0) observation has error of mismatch created/assigned plan

647 7	MSA PLANNED APERTURE PA <min-angle> TO <max-angle> DB: not put in DB GUI Implicit Requirements has: MSA Planned Aperture PA 190.0 to 190.0 Degrees (V3 51.50766 to 51.50766)
APERTURE PA RANGE <min-angle> TO <max-angle> V3 PA RANGE <min-angle> TO <max-angle>	
647 1	V3 PA and Aperture PA are different views of same requirement
952 1, 2	<min-angle> between 0 and 360
952 1, 2	<max-angle> between 0 and 360
647 13	<min-angle> can equal <max-angle>
647 8	can have multiple acceptable angle ranges
647 16	180 offset angle ranges usually still schedulable
can't test just in APT	if multiple targets within visit, PA range at subsequent targets may be slightly different than first target
APERTURE PA OFFSET FROM <observation> BY <min-angle> TO <max-angle> V3 PA OFFSET FROM <observation> BY <min-angle> TO <max-angle>"	
647 2, 3	V3 PA OFFSET FROM and Aperture PA OFFSET FROM are different views of same requirement
952 4-7	<min-angle> between -180 and 180
952 4-7	<max-angle> between -180 and 180
647 15	<min-angle> can equal <max-angle>
952 9	only one OFFSET FROM may be specified for an observation APT currently between the same observations
Normal and Off-Normal Roll	
SAME APERTURE PA <observation-list>	
647 5, 6	SAME V3P PA and SAME APERTURE PA are different views of same requirement
647 9, 10 9 schedules by itself	if observations are from different instruments the apertures may cause the observations to be forced apart in time or be unschedulable
VISITS SAME PA	
647 1 visits 1-3	APT will add to any observation which has multiple visits
647 1 visits 1-3	this requirement is not editable
MSA SELECTED APERTURE PA <min-angle> TO <max-angle>	
see above	APT will add to any NIRSpec MSA observation once an aperture position angle has been selected by STScI
MSA PLANNED APERTURE PA <min-angle> TO <max-angle>	
see above	APT will add to any NIRSpec MSA observation which doesn't yet have a selected aperture position angle