

Changes from file keys CH_*_V0200 to CH_*_V0300 - pipeline version 14.0						
Last update:	12 Mar. 2024					
File key	Type	Data Structure	Column / Keyword	Description	redmine ticket	Comment
CH_*_V0300	New	EXT_PRE_StarCatalogue	GAIA_ID	New header keyword containing the target's GAIA id.	#26898	
	Bugfix	SCI_RAW_Attitude	SC_RA, SC_DEC, SC_ROLL	Algorithm for converting the quaternions to RA/DEC corrected.	#27451	
	New			Dark pixel correction using monitoring & characterization reference dark maps implemented in the data reduction.		
	New			Multi-aperture photometry implemented in the data reduction.		
	Bugfix			Correction of the onboard matrix to convert between arc-seconds and radians. All visits preceeding the update of the onboard software on 27 Jun 2022 have been corrected by applying a correction factor in the ground software.	#25756 #26215	

Known problems in file keys CH_*_V0300 - pipeline version 14.0						
Last update:	12 Mar. 2024					
File key	Type [1]	Data Structure	Column (c::) / Keyword (k::)	Description	redmine ticket	Comment
CH_*_V0300	Ground software	SCI_RAW_ImageMetadata SCI_RAW_Attitude	c::LOS_TO_SUN_ANGLE c::LOS_TO_MOON_ANGLE c::LOS_TO_EARTH_ANGLE c::LATITUDE c::LONGITUDE c::SC_RA c::SC_DEC	Between 24 Nov 2023 and 4 Dec 2023, all visits suffer from a bad reconstruction of the pointing from the quaternions. In Plane manoeuvres were carried out during this period and the bad reconstruction was caused by using data from both pre and post manoeuvre predicted orbit files. The issue will be corrected in the next reprocessing.	#30367	

Changes from file keys CH_*_V010? to CH_*_V0200 - pipeline version 13.0.0						
Last update:	12 Mar. 2024					
File key	Type	Data Structure	Column / Keyword	Description	redmine ticket	Comment
CH_*_V0200	Bugfix	Multiple	{RA, DEC}_TARG	Attitude keywords in the headers are now calculated at the epoch J2000. Attitude values in table columns are now calculated at the epoch of the observation.		
	Bugfix	Multiple	T_EFF	The effective temperature as provided by the PI is propagated to the FITS headers.		
	Bugfix	Multiple	MAG_*	We now provide target magnitudes in the Gaia-bandpass, MAG_G and MAG_GERR, and the CHEOPS-bandpass, MAG_CHPS and MAG_CERR. We do not provide target magnitudes in V-bandpass anymore.		
	New	SCI_*_ImageMetadata	LOS_TO_EARTH_ANGLE, LATITUDE and LONGITUDE.	We now do provide the angle between the instrument's LOS and the Earth Limb, the latitude and longitude of the spacecraft.		
	Bugfix	SCI_RAW_Subarray, SCI_RAW_Imagette	pixel values	When the ADC over-saturates the pixel values are now set to 0xffff as in the case of simple saturation/	#21478	
	Bugfix	SCI_RAW_UnstackedImageMetadata	PHOTOMETRY_{1,2,3}	The onboard photometry was enabled on 2020-09-13 05:41:31, the first visit is PR100002_TG015505. However, the onboard software has a bug and values are incorrect. Affected columns: PHOTOMETRY_{1,2,3} in SCI_RAW_UnstackedImageMetadata. This requires an update of the instrument onboard software. The problem cannot be corrected by reprocessing. The onboard software was patched on 2021-02-12. The first visit with correct values for the onboard photometry is PR100018_TG030503 (TYC 1313-1482-1).	#22380	
	New	SCI_RAW_Attitude	SC_RA, SC_DEC, SC_ROLL	The command to permanently enable the 1 Hz attitude quaternions was executed on 2021-10-16 at 14:20:00. Before that date, the 1 Hz attitude information was disabled after the first orbit of a given visit. For the remaining time of the visit, attitude information is available at a frequency of 1 / 64 Hz. After that date, the attitude information is available at a frequency of 1 Hz throughout the visit. Last visit before the change : PR100012_TG001204 (WASP-18) First visit after the change : PR100016_TG013901 (KELT-7)		Added on 18 Oct. 2021
New	EXT_PRE_StarCatalogue	PITL	New header keyword indicating whether or not the payload is in the loop.	#23540	Added 5 Feb 2021	

Known problems in file keys CH_*_V0200 - pipeline version 13.1.0						
Last update:	12 Mar. 2024					
File key	Type [2]	Data Structure	Column / Keyword	Description	redmine ticket	Comment
CH_*_V0200	Onboard Software	SCI_RAW_UnstackedImageMetadata	PHOTOMETRY_{1,2,3}	<p>The onboard photometry was enabled on 2020-09-13 05:41:31, the first visit is PR100002_TG015505. However, the onboard software has a bug and values are incorrect. Affected columns: PHOTOMETRY_{1,2,3} in SCI_RAW_UnstackedImageMetadata. This requires an update of the instrument onboard software. The problem cannot be corrected by reprocessing.</p> <p>The onboard software was patched on 2021-02-12. The first visit with correct values for the onboard photometry is PR100018_TG030503 (TYC 1313-1482-1).</p>	#22380	
	Ground software	SCI_RAW_Attitude	SC_RA, SC_DEC, SC_ROLL	The quaternions converted to RA/DEC show harmonic oscillation of amplitude 1-2" for orbits with variable roll rate	#27451	
	Onboard Software			Correction of the onboard matrix to convert between arc-seconds and radians.	#25756	Onboard software updated on 27 Jun 2022

Known problems in file keys CH_*_V010? - pipeline version 12						
Last update:	12 Mar. 2024					
File key	Type [3]	Data Structure	Column (c::) / Keyword (k::)	Description	redmine ticket	Comment
CH_*_V010*	Ground Software	Multiple	k::{RA, DEC}_TARG	Attitude information is only available at the epoch of the observation. Queries in the archive browser interface are not reliable.		
	Ground Software	Multiple	k::MAG_V	Magnitudes are provided the Gaia-bandpass instead of V-bandpass		
	Ground Software	Multiple	k::SPECTYPE	The spectral type information is most of the time 'Other'. Queries in the archive browser interface are not reliable.		
	Onboard Software	SCI_RAW_UnstackedImageMetadata	c::PHOTOMETRY_{1,2,3}	The onboard photometry was enabled on 2020-09-13 05:41:31, the first visit is PR100002_TG015505. However, the onboard software has a bug and values are incorrect. Affected columns: c::PHOTOMETRY_{1,2,3} in SCI_RAW_UnstackedImageMetadata. This requires an update of the instrument onboard software. The problem cannot be corrected by reprocessing.	#22380	
	Ground Software	SCI_RAW_ImageMetadata	c::Multiple	If c::HK_SOURCE is set to 'science tm', the data in columns from CE_VOLT_FEE_VOD through to CE_thermFront_4 are unreliable. They should not be used for decorrelation.	#21868	Pending technical verification
	Ground Software	SCI_COR_LightCurve	c::FLUX, cc:BACKGROUND, c::CONTA_LC	The DRP applies the bias offset valid for a CCD temperature of -40 degree centigrade also for data that was observed with a CCD temperature of -45 and -50 degree centigrade. Note: for routine operations the nominal CCD temperature is -45 degree centigrade.	#23224	
	Ground Software	SCI_RAW_Subarray, SCI_RAW_Imagette	pixel values	When the ADC oversaturates the pixel values are incorrectly set to 0	#21478	

[1] Ground Software: may be fixed by reprocessing
Onboard Software: may be not fixable by reprocessing

[2] Ground Software: may be fixed by reprocessing
Onboard Software: may be not fixable by reprocessing

[3] Ground Software: may be fixed by reprocessing
Onboard Software: may be not fixable by reprocessing