DC3 Applications Prioritzed Task List

Category	Task	Lead	FTE avail (#)	DC3 Scope	Dependencies	Wish List (Y/N)	Use Case (Y/N)	Priority (1,2,3)	Total Effort (FTE*month)	
Applications Framework	Update fromDC2	Lupton			predecessor for DC3	Y	N/A	1		
Data Release Processing	Create Template Images	??		Develop Strategy (initially listed under Nightly)	Image coaddition	Y	?	2		
Data Release Processing	Deep Detection	Becker/Lupton		Detection in Coadded image	Image coaddition	Y	?	1		
Data Release Processing	Deep Detection	Becker/Lupton		De-blending confused sources	Image coaddition,detection in coadd, PSF model, multifit?, ?	Y	?	3		
Data Release Processing	Deep Detection	Becker/Lupton		PSF (stellar) photometry	Image coaddition, detection in coadded image, PSF			1		
Data Release Processing	Deep Detection	Becker/Lupton		Galaxy (extended source) photometry	Image coaddition, detection in coadded image, PSF	Y	Y	3		
Data Release Processing	Image Coaddition	Becker/Connolly		Image Resampling/Stacking/Combining	Background Estimation and background matching	Y	?	1		
Data Release Processing	Multifit	Wittman	2x0.5	Shape measurements and photometry for galaxies	image coaddition, deep detection, PSF model	Y	N	2		
Data Release Processing	Photmetric Calibration	Axelrod		simultate pipeline algrithms, handle time dependence (unclear what the deliverable is)		Y	Y	1		
Data Release Processing	SDQA Diagnostic Generation	All Data Release Pipeline developers		Produce negotiated metrics for use by SDQA, dominantly self-diagnostics		Y	Y	3		
Data Release Processsing	Deep Detection	Becker/Lupton		Background Estimation	Image coaddition	Y	?	2		
Nightly Processing	Association Pipeline Improvements	Mokewitz/Lim		Tweaks to DC2 elements		Y	Y	1		
Nightly Processing	Association Pipeline Improvements	Mokewitz/Lim		Add proper motion, color-dependent refraction and source listing for other clients	DC2 Tweaks	Y	?	2		
Nightly Processing	Astrometric Calibration	Axelrod/Monet		determine low order terms		Y	?	2		
Nightly Processing	Improve Basis Functions	Becker/Lupton				Y	Y	3		
Nightly Processing	Improve WCS Determination	Axelrod/Becker		Improve accuracy and robustness		Y	Y	2		
Nightly Processing	Instrument Signature Removal	Silvestri		Implement infrastructure and standard astronomical CCD image processing (e.g., flatfield/bias/linearization)	Simulated Images	Y	Y	1		
Nightly Processing	Instrument Signature Removal	Silvestri		Implement selected additional signature removal, e.g. crosstalk	Simulated Images	Y	Y	3		
Nightly Processing	MOPS	Myers		Day MOPS	tweaks to night MOPS?	Y	?	2		
Nightly Processing	PSF Generation	Lupton/Becker		Generate a usable PSF model for contingent DC3 tasks		Y	?	1		
Nightly Processing	SDQA Diagnostic Generation	All Nightly Processing Developers		Produce negotiated metrics for use by SDQA, dominantly self-diagnostics		Y	Y	1		
Nightly Processing	Source Characterization	Lupton/Becker		Sort out stars and galaxies	PSF model	Y	?	3		
Nightly Processing	MOPS	Myers		Tweaks to Night MOPS		Y	?	1		
SDQA	Initial implementation	Levine	4x0.2	Implement one Use case end to end for difference imaging	Diagnostics in pipeline modules are implemented and stored in some fashion	Y	Sorta	2		