Note: The chart below serves as a starting point for determining the C-I-A rating for FRCS. There could be extenuating circumstances that could drive a specific system outside these typical values; however, the below highlighted systems should fit a large percentage of the USAF FRCSs.

Index	"Control" or	FRCS Type a	and Description	Mission Description	М	ission Supp	ort		nary Baseli ssion Esser		[N	lission Critic	cal
	"Monitor only"	FRCS Type	System Name	Business and Mission Supported:	С	- 1	Α	С	I	Α	С	- I	Α
1	Control	Ai rfield Sys tems	Aircraft Arresting System (AAS) Control System	Aircraft Arresting Systems (AAS) are both fixed and mobile systems (cable and net) that stop an aircraft and prevent it from overrunning the runway.	NA	NA	NA	ι	М	М	М	н	н
2	Control	Ai rfield Sys tems	Airfield Lighting Control System	Airfield Lighting Systems indude the navigation lighting, approach lighting, runway and taxiway lighting, and parking area lighting systems to ensure safe operations.	NA	NA	NA	ι	М	М	М	н	н
3	Control	Ai rfield Systems	Ramp Lighting Control System [High Mast]	Ramp Lighting Systems are used to illuminate the airfield orpier fornighttime/limited visibility operations and physical security.	NA	NA	NA	L	L	М	М	м	н
4	Monitoronly	Ai rfield Systems	RunwayIce Detection System (RIDS) Control System	Runway I ce Detection System (RIDS) are used to identify icing and reduced surface traction conditions of airfield pavements.	NA	NA	NA	L	L	М	М	м	н

5	Control	Automated Material Handling Equipment (AMHE)	Automated Storage and Retrieval Systems	Automated Storage and Retrieval Systems are typically PLC controlled parts storage or retrieval systems to include man aboard stacker cranes.	L	М	L	L	М	L	М	Н	м
6	Control	Automated Material Handling Equipment (AMHE)	AWOS - Automated Weight and Offering System	Automated Weight and Offering Systems are typically PLC controlled equipment that automates the weighing, dimensioning and shipping quote system and may indude packaging, labeling and routing to the appropriate shipping dock.	L	м	٠	L	м	٠	М	н	М
7	Control	Automated Material Handling Equipment (AMHE)	Ergonomic Systems	Automated systems such as lift/tilt table, vacuum lifts, inverters and auto bagging equipment designed to enhance the safe handling of material.	L	м	٠	L	м	L	М	н	М
8	Control	Automated Material Handling Equipment (AMHE)	Forklift/Lift Systems	Automated forklift and lifts ys tems are typically PLC controlled sys tems that control movement of large material items to or from storage.	L	М	L	L	М	L	М	н	М

9	Control	Automated Material Handling Equipment (AMHE)	Forklifts	Independents ys tems manually operated (all dasses) that contain significant PLC software and data transmission capabilities	ι	М	L	L	м	L	М	н	м
10	Control	Automated Material Handling Equipment (AMHE)	Packaging systems	Automated systems that are typically PLC controlled to wrap, bundle, unitize or label material	L	М	L	L	М	ι	М	н	М
11	Control	Automated Material Handling Equipment (AMHE)	Robotics	Robotics includes systems designed to automate one or more functions typically done by warehouse personnel in the movement, packaging, storage, and shipment of material.	L	М	L	L	М	L	М	н	М
12	Control	Automated Material Handling Equipment (AMHE)	Weigh & Span systems	PLC Automated in-line or DCS systems that provide control checks and quality monitoring on weight and dimensional data of material to include scales and Cubiscans.	L	М	L	ι	М	L	М	Н	М

13	Control	Building Control System (BCS)	Building Lighting Control System	Building Lighting Systems are both exterior and interior facility/building systems used to provide light. Lighting systems consist of the fixtures (LED, halogen, high pressure sodium, incandescent), occupancy and light sensors, motion detectors. Building Lighting Systems can be interconnected to other systems such as shade control and energy management systems.	L	ι	L	L	L	L	L	М	М
14	Control	Building Control System (BCS)	Conveyance / Vertical Transport Control System	Conveyance/Vertical Transport Systems are elevators, escalators, and lifts that move people and materials either horizontally or vertically. These systems are typically interconnected with the Building Automation Systems, Fire Automation Systems, and Physical Access Control Systems systems as part of the fire code requirements for egress and life safety. Interlock from Fire is by relay contacts, not LAN, WAN, or Internet.	L	L	L	L	L	L	L	L	L
15	Control	Building Control System (BCS)	Electrical Distribution (interior) Control System	Electrical Distribution Systems within a building are the transformers, switches, and distribution wiring that supply typical 208/120 voltor 480/277 volt power to the building. Indudes "ALL" electrical equipment, induding UPS, ATS, and building level generators.	ι	ι	L	L	М	М	L	н	Н
16	Control	Building Control System (BCS)	Heating, Ventilation, Air Conditioning (HVAC) Control System	Heating, Ventilation, Air Conditioning (HVAC) Systems provide the temperature and humidity control for a facility/building. The HVAC typically consist of cooling towers, chill water, air handling units, variable air volume boxes, fans and coils, radiators, and piping to distribute hotand cold water and condition air.	ι	ι	L	L	L	L	L	М	М

17	Other	Building Control System (BCS)	Irrigation Control System	Irrigation Systems are both exterior and interior facility/building systems used to provide water to vegetation (agriculture and landscaping) and consists of the water source (utility, pumped surface/groundwater, storage tank), piping, sprinkler or drip delivery, and sensors and actuators to measure pressure and flow.	L	ι	L	Ĺ	L	L	L	L	L
18	Control	Building Control System (BCS)	IS/FRCS Hybrid/Convergence Systems:	Access control/alarm systems that use badges/Common Access Cards and Active Directory for keyless entry (contain PII) Keyless entry/keypad systems that use Active Directory (contain PII) Meter data managementsystems that interconnect with a local utility with real time demand and response (if the meter data is determined to contain PCI or not contain PCI two types of FRCS) Vehide fueling/charging stations/pumps with credit card swipe (contain PCI) Computerized maintenance management systems/work order systems that interconnect with control system back-end controllers and devices (if the system is determined to contain PCII or PII – two types of FRCS)	М	М	м	М	М	М	М	М	М
19	Monitoronly	Building Control System (BCS)	Mass Notifications Systems (MNS)	Mass Notifications Systems (MNS) include Giant Voice and various audiable alarms used to inform and notifiy personnel of alert conditions.	L	ι	L	L	L	М	L	L	м
20	Control	Building Control System (BCS)	Medical Control Systems (MED)	Large and complex devices, such as MRI scanners or radiation therapy systems for cancer treatment, typically have remote displayand control systems associated with them, allowing a dinician to administer treatments safely and efficiently. These control systems have much in common with enterprise-class desktop software.	М	М	М	М	М	М	М	М	М

21	Control	Building Control System (BCS)	Meteorological Control Systems (MET)	A meteorological system contains essential weather instruments which ensure reliable performance under all environmental conditions. The systems provide independent sensors for high accuracies of each individual weather parameter. The indicators offer easy operation and reliable function for comfortable and safe navigation. The simplest system, like a wind system consisting of a wind sensor with dedicated wind display, gives users the required information on the wind conditions.	М	М	М	М	М	М	М	М	М
22	Control	Building Control System (BCS)	Shade Control System	Shade Control Systems are used to manage the amount of light and radiant energy that enters a building and indude interior activated blinds, screens and exterior a wnings and overhangs.		L	L	L	L	L	L	L	L
23	Control	Building Control System (BCS)	Traffic Management	Traffic Management is a control system used to affect traffic flow a cross an installation(s) consisting of intersection traffic lights and other supporting infrastructure like cameras, motion sensors, and railroad crossings	L	L	L	L	М	L	L	М	L
24	Other	CS-Platform Endave	Control System Platform Endave (CS-PE)	Control System Platform Endaws (CS-PE) are network endaws that are dedicated the support of CS providing standard cybersecurity, such as boundary defense, incident detection and response, and key management, and also delivery of common applications. CS-PEs may be specific to an organization or a mission, and the computing environments may be organized by physical proximity or by function independent of location. Examples of CS-PEs include local area networks and the applications they host, backbone networks, and data processing centers dedicated to CS. *Note: The CJA value needs to be determined based on the systems which rely on the PE to function or for their cybersecurity posture. The PE shoud have a C-I-A rating equal to (or higher) than the highest rated system relying on it. Systems which simply communicate with the PE but do not rely on the PE (for function or cybersecurity) should not increase the PE CIA rating.	* See Des crip.	* See Des crip.	* See Des crip.	* See Descrip.	* See Des crip.	* See Des crip.	* See Des crip.	* See Descrip.	* See Descrip.

25	Monitoronly	Dams, Locks & Levee Sys tems	Dam Safety Control System	Dam Safety Control Systems are mostly data acquisition system to monitor dam integrity. Dam Safety indudes all activities required to ensure the structural integrity of flood control structures by monitoring waterseepage levels, uplift pressures, etc.	ι	Ĺ	L	ι	L	Ĺ	NA	NA	NA
26	Control	Dams, Locks & Levee Systems	Flood Risk Management Control System	Flood Risk Management Systems includes all activities devoted to the effective use [and maintenance] of impoundments, levees, and hurricane protection systems specifically designed for managing water to protect life and economic stability.	L	м	М	L	М	М	NA	NA	NA
27	Control	Dams, Locks & Levee Systems	Hydropower Control System	Hydropower Control Systems are traditionally supervisory control and data acquisition (SCADA) systems to produce and distribute electric power.	L	L	٦	ι	L	L	NA	NA	NA
28	Control	Dams, Locks & Levee Systems	Navigation Control System	Na viga tion Control Sys tems opera te locking fa cilities .	L	L	L	L	L	L	NA	NA	NA

29	Control	Electronic Security System (ESS)	Access Control System (ACS) or Automated Entry Control Systems (AECS)	Access Control Systems (ACS) are automated systems that interface with locking mechanisms that momentarily permit access (for example, by unlocking doors or gates) after verifying entry credentials (e.g., using a card reader). DoDM 5200.01 vol 3; OPNAVINST 5530.14E refer to the ACS as an Automated Access Control System, Electronic Entry Control system, or Keyless Access System. ACS is a subsystem of an ESS.	м	М	М	М	н	н	н	н	н
30	Monitoronly	Electronic Security System (ESS)	CBRNE Monitoring and Notification Systems	CBRNE Notification Systems consist of the monitoring system, sensors and devices to detect chemical, biological, adiological, nudear and explosive compounds and alarm and/or interact with other facility systems to prevent contaminants from spreading into other parts of the facility and provide safe haven areas for people within the facility.	L	М	м	L	м	м	_	н	Н
31	Control	Electronic Security System (ESS)	Electronic Security System (ESS)	Electronic Security Systems (ESS) are a collection of multiple ESS, such as interior and exterior Intrusion Detection System (IDS), Closed Circuit Television (CCTV) system for assessment of alarm conditions, Access Control Systems (ACS), Data Transmission Media (DTM), and alarm reporting systems for monitoring, control, and display.	М	М	М	М	М	М	М	н	Н
32	Monitoronly	Electronic Security System (ESS)	Intrusion Detection Systems (IDS)	Intrusion Detection Systems (IDS) are used to identify people who have entered into a secure area. IDS consists of many different sensors such as infrared, microwave, glass break, vibration, and magnetic. (When integrated with a control system which performs another function - such as access control to secure the doors - this becomes part of an ESS.)	ι	L	L	L	М	L	М	н	М

33	Control	Electronic Security System (ESS)	Physical Access Control Systems (PACS)	Facility-Related Physical Access Control Systems (PACS), such as Installation Entry Control systems (IEC) are part of the installation ATFP perimeter defense. The IEC may consist of vehicle pop-up barriers, mantraps, entry gates, rejection/holding areas, lighting and messaging/way finding signage.	М	М	М	М	н	н	Н	н	н
34	Control	Electronic Security System (ESS)	Residential (Billet) Keyless Entry Control System (RKECS)	Residential (Billet) Keyless Entry Control Systems (RKECS) are used in dormitories, BAQ, TLQ and other fadilities for access control.	L	L	L	L	L	L	NA	NA	NA
35	Monitoronly	Environmental Monitoring (EM)	Environmental Water Level Monitoring Systems	Environmental Water Level Monitoring Systems provide unattended, long-term monitoring of water level and flow.	L	М	L	L	М	L	L	М	М
36	Monitoronly	Environmental Monitoring (EM)	Landfill Lea cha te Moni toring Sys tems	Landfill Leachate Monitoring Systems monitor the fluids within the landfill and include leachate collection and removal systems which sit on top of the composite liner and removes leachate from the landfill for treatment and disposal, testing groundwater wells to determine whether was te materials have escaped from the landfill, and monitoring/managing methane gas which is also used as an alternate renewable energy source.	L	М	L	L	М	L	L	М	М

37	Monitor only	Environmental Monitoring (EM)	Pollutant Discharge Effluent Monitoring Systems	Pollutant Discharge Effluent Monitoring Systems monitor wastewater discharges as required by the Gean Water Act and must meet National Pollutant Discharge Elimination System (NPDES) requirements.	. г	М	L	L	М	L	L	М	М
38	Monitor only	Environmental Monitoring (EM)	Water Pollution Discharge Monitoring System	Water Pollution Discharge Monitoring Systems monitor the effluent as required by the Clean Water Act and must meet National Pollutant Discharge Elimination System (NPDES) requirements.	L	М	L	L	М	L	L	М	М
39	Monitoronly	Environmental Monitoring (EM)	Water Temperature Monitoring Systems	Water Temperature Monitoring Systems monitor the incoming and outgoing temperature of groundwater, surface water, and process water.	L	М	L	L	М	L	L	М	М
40	Control	Environmental Remediation (ER)	Ground Water Remediation Systems / Soil Vapor Remediation Systems	Ground Water Remediation Systems/Soil Vapor Remdiation Systems typically monitor and control using PLCs a system of extraction wells pumps, treatment processes and effluent discharge or re-injection well pumps to treat ground water or soils containinated by Volatile Organic Compounds (VOCs).	L	М	L	L	М	М	L	М	М

41	Control	Fire & Life Safety (FLS)	Fire Pump Control System	Fire pumps pump water to fire sprinkler systems, fire hydrants, and standpipes. Fire pump controllers are control panels containing electrical components such as dircuit breaker, switches, relays and other devices dedicated to the operation of fire pumps. The devices within a fire pump controller panel performsuch functions as receiving signals from alarm devices, such as pressure operated switches, sprinkler alarm valves or remote fire alarm equipment; activating motor control devices to provide electric power to motors driving fire pumps and monitoring the fire pump operation and performance. Stand alone. Not Network connected. Not Internet connected.	ι	М	М	L	м	М	L	Н	н
42	Control	Fire & Ufe Safety (FLS)	Fire Suppression System (FSS) Control System	Fire suppression/extinguishing systems induding, but not limited to:automatic sprinkler systems; water spraysystems; foamsystems; standpipe systems; dry chemical extinguishing systems; wet chemical extinguishing systems; dean agent fire extinguishing systems; water mist fire protection systems; carbon dioxide systems; and, halon 1301 systems. Not networked. Not internet connected.	L	М	М	L	М	М	L	н	н
43	Monitoronly	Fire & Uife Safety (FLS)	Fire Alarm Reporting Control System	Fire Alarm Reporting Systems are installation-wide reporting systems that connect the Fa control panel(s) to a constantly attended location staffed with qualified operators for the receipt and processing of emergency communications. Air-gapped from LAN, WAN, not Internet connected (Per UFC 3-600-01).	L	L	L	L	L	ι	L	М	М
44	Control	Fire & Uife Safety (FLS)	Fire Detection and Alarm Control System	Fire Detection and Alarm System is a system or portion of a combination system that consists of components and circuits arranged to monitor and annunciate the status of fire alarm or supervisory signal-initiating devices and to initiate the appropriate response to those signals. Fire alarms systems are analog or addressable wiring, raceways, pull boxes, terminal cabinets, outlet and mounting boxes, control equipment, alarms, supervisory signal-initiating devices, alarm notification appliances, supervising station fire alarm system transmitter, and other accessories and mis cellaneous items. Airgapped from LAN, WAN, not Internet connected (Per UFC 3-600-01).	L	М	М	L	м	М	L	М	М

45	Monitoronly	Fueling Systems	Fuel Leak Detection System Control System	Fuel Leak Detection System (FLDS) are installed on POL and other fluid transport systems to identify leaks and/or loss of pressure that could result in environmental spillage and contamination.	; L	М	М	L	М	М	Ĺ	М	М
46	Control	Fueling Systems	Petroleum, Oil & Lubri cants (POL) Control System [Distribution & Storage]	Petroleum, Oil & Lubricants (POL), Distribution & Storage are a combination of multiple control systems. These systems use Programmable Logic Controllers (PLCs) and Remote Terminal Units (RTUs) spread out over a large geographic area, multiple large volume tanks, an extensive underground pipeline distribution system/pantograph, and interconnects to other iT and OT systems such as an inventory and spill system. This covers systems such as generator fueling distribution control systems.	L	L	٠	L	L	L	٠	L	L
47	Control	Fueling Systems	Vehide Fueling Control System	Vehide Fueling Systems are used to fuel vehides. Charging systems for Evs are considered Vehide Fueling Systems.	L	L	L	L	М	М	L	М	Н
48	Control	PierSystems	Dry Dock Process Water Control System	Dry Dock Process Water Systems pump water into or out of the dry dock and consist of the pipe, pumps, valves and controllers that regulate the water pressure and flow rate.	L	L	L	L	М	М	L	н	н

49	Control	Transportation Systems	Railroad Track Control Systems	Rail road Track systems are a combination of multiple control systems. These systems use Programmable Logic Controllers (PLCs) and Remote Terminal Units (RTUs) spread out over a large geographic area.	L	L	L	L	м	м	L	н	н
50	Monitoronly	Utility Control System (UCS)	Cathodic Protection Monitoring Systems (CPS)	Cathodic Protection Systems (CPS) are used to provide cathodic protection to buried and elevated pipe and other metal systems such as building envelopes and roofs where dissimilar metals are joined. Cathodic elements exchange ions to maintain surface level of protection and prevent leaks and corrosion.	L	ι	ι	L	L	ι	L	М	L
51	Control	Utility Control System (UCS)	Compressed Air (Or Compressed Gases) Control System [Generation, Storage, Distribution]	Compressed Air (Or Compressed Gases) Systems provide air used to manage tanks head space and pneumatics ys tems, O&M tools and equipment, and other buildings systems. This Type is for FRCS (not for compressed air that might be part of a process control system, eg. Manufacturing).	L	L	L	L	L	ι	L	М	М
52	Control	Utility Control System (UCS)	District Chilled Water Control System	District Chilled Water Systems are central plant systems which provide chilled water to the HVAC system and/or Distributed Energy Grids. Chilled water is essential to manage the temperature and humidity control within a building.	L	L	L	L	L	L	L	М	М

53	Control	Utility Control System (UCS)	District Electrical Generation Control System	District Electrical Generation provides electrical power to the Electrical Distribribution System (grid).	L	L	L	ι	м	М	L	М	м
54	Control	Utility Control System (UCS)	District Hot Water Control System	District Hot Water Systems are central plantsystems which provide hot water to the HVAC system and/or Distributed Energy Grids. Hot water is essential to manage the tempera ture and humidity control within a building.	L	L	٠	٠	L	L	٠	М	М
55	Control	Utility Control System (UCS)	District Steam Control System	District Steam Systems are central plant systems which provide steam to the HVAC system and/or Distributed Energy Grids. Steam is essential to manage the temperature and humidity control within a building.	L	L	L	L	L	L	L	М	м
56	Control	Utility Control System (UCS)	Electrical Transmission and Distribution Control System	The Electrical Transmission and Distribution Systems are the substations, step-down transformers, switch gear and power cabling that provide power. Indudes emergency and back up generators.	L	ι	ι	L	М	М	L	м	М

57	Control	Utility Control System (UCS)	Gray Water Control System	Gray Water Systems provide water that has been reprocessed from sanitary was te, is not potable, but can be used for irrigation, etc.	L	L	ι	L	L	L	L	L	L
58	Control	Utility Control System (UCS)	Industrial Was tewater Treatment System (IWTS) Control System	Industrial Was tewater Treatment Systems (IWTS) redaim water that has been used for industrial processes such as manufacturing, operations and maintenance, chill water effluent, and deicing operations and contain chemicals or solids that must be removed prior to discharge into other bodies of water.	L	L	٠	L	L	L	L	М	М
59	Control	Utility Control System (UCS)	Microgrid Control System (MCS)	A Microgrid Control System is a specific type of electronic system, but it essentially consists of a "District Electrical Generation Control System" and an "Electronic Transmission and Distribution Control System". A microgrid is generally designed to connect and disconnect from the grid to enable it to operate in both grid-connected or island mode.	L	L	L	L	М	М	L	М	М
60	Control	Utility Control System (UCS)	Natural Gas Control System	Natural Gas Systems are the distribution pipelines, pumps and controls used to provide the natural gas commodity from the supplier to the end user.	L	L	L	L	L	L	L	М	М

61	Control	Utility Control System (UCS)	Oil /Water Separators (OWS) Control System	Oil/Water Separators (OWS) separate water and oil from surface water runoff, fuel tanks, marine equipment, and other equipment that has in-line filters to prevent fuel contamination or accidental discharge into other bodies of water. For Navy, OW/WO is typically generated by ships tied up at dock, and uses shore-based collection and pumping systems similar to sewer lift stations, and eventually winds up at the Industrial Waster Treatment Plant (IWTP) for processing.	L	L	L	L	L	L	L	М	м
62	Control	Utility Control System (UCS)	Potable Water Control System	Pota ble Water Systems are typically municipal utilities that provide the water production, distribution pipelines and end point connection to a building and provide water safe for human consumption. Smaller scale PoWS may operate in remote and less populated a reas but utilize the same basic equipment and processes.	L	L	ι	L	L	L	L	М	М
63	Control	Utility Control System (UCS)	Pure Water Control System	Pure Water Systems provide deionized and chemical free water used for reactors, ships, medical and manufacturing processes.	L	L	L	L	м	М	М	н	н
64	Control	Utility Control System (UCS)	Salt Water Control System	Salt Water Systems are a utility commodity commonly used on Navy piers for on-board ship cooling, fire suppression, and dry dock operations. May also be known as "Auxilliary Salt Water Systems", especially in a nudear ship yard environment.	L	L	L	L	м	М	М	н	Н

65	Control	Utility Control System (UCS)	Sanitary Sewer / Was te water Control System	Sanitary Sewer / Was tewater Systems are typically municipal utilities that provide the was tewater treatment, collection pipelines and end point connection to a building and remove water used for human consumption.	ι	ι	L	L	L	Ĺ	L	М	М
66	Control	Utility Control System (UCS)	Uninterruptible Power Supply (UPS) Control System	Uninterruptible Power Supply (UPS) is an electrical apparatus system that provides emergency power to a load when the input power source or main power fails.	L	L	L	L	М	L	٦	М	м
67	Monitoronly	Utility Control System (UCS)	Utility Metering Control System (Advanæd Meters, AMI, etc.)	Advanced Metering Infrastructure (AMI)" is the full measurement and collection system that includes Smart Meters at the customer site, communication networks between the customer and a service provider (such as an electric, gas, or water utility, and data reception) and management systems that make the information available to the service provider. AMI differs from traditional automatic meter reading (AMR) in that it enables network communications with the meter. Note: the term Infrastructure is used differently here than for other DoD Control Systems (see Infrastructure definition). These systems enable measurement of detailed, time-based information and frequent collection and transmittal of such information to various parties. AMI meters are a type of UCS, the associated network is the UMCS Platform Endave, and the Front End is a UMCS Front End. (Note: if the meters can switch electrical power, they are part of a electrical distribution system not a metering system.)	ι	ι	L	ι	L	ι	L	ι	L
68	Other	Utility Monitoring and Control System (UMCS)	Telecommunications Control System (e.g., CAIRS)	A telecommunications manage ment/distribution system (TMS) (telecommunications control system in this context) primarily controls voicemail and plain-old-telephone call services and supports the transmission and distribution of telecommunications throughout an installation. It is also used to monitor, control, alarm and/or distribute aggregate, special purpose and single use communications circuits and pathways. Additionally, it may manage billing, switch controls, service management and operator consoles.	н	н	Н	н	н	н	н	н	н

69		Monitoring and Utility Monitoring and Control System (UMCS)	Utility Monitoring Control Systems (UMCS) is the system consisting of one or more building control systems or utility control systems and the associated UMCS Infrastructure. In other words, it is the complete utility monitoring and control system – from the front end to equipment controllers. UMCS is typically a collection of multiple UCS and BCS that have been procured as components of a modularsystem and can consist of multiple vendors devices and components.	Ĺ	L	L	Ĺ	L	L	L	М	М
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