API Changes								
Method name	**Old value (810)**	**New value (820)**	**Marked backward compatible in 810**	**Interface (810)**	**Interface (820)**	**Rationale for change**	**Impact**	
Added Optional Arguments								
ESMF_Initialize	N/A	globalResourceControl	Yes	16.4.1	16.4.1	Allow user to enable ESMF-aware resource control on the global VM.	No impact.	
ESMF_Initialize	N/A	config	Yes	16.4.1	16.4.1	Allow user to access the config object created by ESMF_Initialize() when the configFilename argument was specified.	No impact.	
ESMF_Initialize	N/A	defaultDefaultLogFilename	Yes	16.4.1	16.4.1	Allow user to set the default filename of the default log object.	No impact.	
ESMF_Initialize	N/A	defaultLogAppendFlag	Yes	16.4.1	16.4.1	Allow user to set the default log append behavior.	No impact.	
ESMF_Initialize	N/A	defaultLogKindFlag	Yes	16.4.1	16.4.1	Allow user to set the default LogKind.	No impact.	
ESMF_Initialize	N/A	defaultGlobalResourceControl	Yes	16.4.1	16.4.1	Allow user to set the default globalResourceControl value.	No impact.	
ESMF_GridCompSetVMMaxPEs	N/A	forceChildPthreads	No	17.4.25	17.4.25	Allow user to specify whether child PETs run as independent Pthreads, or use the parent PET directly.	No impact.	
ESMF_GridCompSetVMMaxThreads	N/A	forceChildPthreads	No	17.4.26	17.4.26	Allow user to specify whether child PETs run as independent Pthreads, or use the parent PET directly.	No impact.	
ESMF_GridCompSetVMMinThreads	N/A	forceChildPthreads	No	17.4.27	17.4.27	Allow user to specify whether child PETs run as independent Pthreads, or use the parent PET directly.	No impact.	
ESMF_CplCompSetVMMaxPEs	N/A	forceChildPthreads	No	18.4.25	18.4.25	Allow user to specify whether child PETs run as independent Pthreads, or use the parent PET directly.	No impact.	
ESMF_CplCompSetVMMaxThreads	N/A	forceChildPthreads	No	18.4.26	18.4.26	Allow user to specify whether child PETs run as independent Pthreads, or use the parent PET directly.	No impact.	
ESMF_CplCompSetVMMinThreads	N/A	forceChildPthreads	No	18.4.27	18.4.27	Allow user to specify whether child PETs run as independent Pthreads, or use the parent PET directly.	No impact.	
ESMF_XGridGet	N/A	coordSys	No	34.6.8	34.6.8	Allow user to retrieve the coordinate system that the XGrid is specified in.	No impact.	
ESMF_VMEpochEnter	N/A	throttle	No	49.6.14	49.6.14	Allow user to set the maximum number of outstanding communication calls between any two PETs within an VMEpoch.	No impact.	
ESMF_VMGet	N/A	esmfComm	Yes	49.6.18	49.6.18	Provide access to the ESMF_COMM setting used by the ESMF installation.	No impact.	
Changed Arguments								
ESMF_Initialize	defaultConfigFilename	configFilename	Yes	16.4.1	16.4.1	Argument was renamed in order to clarify that provided settings in the Config file are not defaults, but final overrides.	Code that uses the old defaultConfigFilename argument must be changed to use the new configFilename argument.	
ESMF_CplCompSetVMMaxPEs	minStackSize	pthreadMinStackSize	No	18.4.25	18.4.25	Argument was renamed to clearly indicate that it refers to the Pthread stack size.	Code that uses the old minStackSize argument must be changed to use the new pthreadMinStackSize argument.	
ESMF_CplCompSetVMMaxThreads	minStackSize	pthreadMinStackSize	No	18.4.26	18.4.26	Argument was renamed to clearly indicate that it refers to the Pthread stack size.	Code that uses the old minStackSize argument must be changed to use the new pthreadMinStackSize argument.	
ESMF_CplCompSetVMMinThreads	minStackSize	pthreadMinStackSize	No	18.4.27	18.4.27	Argument was renamed to clearly indicate that it refers to the Pthread stack size.	Code that uses the old minStackSize argument must be changed to use the new pthreadMinStackSize argument.	

API Changes

Method name	Old value (810)	New value (820)	Marked backward compatible in 810	Interface (810)	Interface (820)	Rationale for change	Impact	
Added Methods								
ESMF_MethodGet	N/A	N/A	N/A	N/A	22.4.17	Provide access to the list of labels of all the methods attached to a CplComp object.	No impact.	
ESMF_MethodGet	N/A	N/A	N/A	N/A	22.4.19	Provide access to the list of labels of all the methods attached to a GridComp object.	No impact.	
ESMF_MethodGet	N/A	N/A	N/A	N/A	22.4.21	Provide access to the list of labels of all the methods attached to a State object.	No impact.	
Deprecated Classes								
ESMF_Attribute	N/A	N/A	No	55	55	The underlying implementation for metadata storage has changed and is available through the native ESMF_Info API.	Code that uses the legacy ESMF_Attribute API through derived type, methods, or named constants should migrate to use the ESMF_Info class API.	