API Changes							
Method name	Old value (530)	New value (610)	Marked backward compatible in 530	Interfaces affected (530)	Interface (610)	Rationale for change	Impact
Added Arguments							
ESMF_StateGet	N/A	itemorderflag	Yes	18.7.8	19.7.8	Allow items to be returned in the order in which they were added	No impact
			Yes, but see Deprecated Interface			Consistency with other container	
ESMF_StateRemove	N/A	relaxedFlag	section	18.7.14	19.7.14	classes	No impact
ESMF_FieldBundleGet	N/A	itemorderflag	Yes	22.5.9	23.5.9	Allow items to be returned in the order in which they were added	No impact
ESMF FieldBundleGet	N/A	itemorderflag	Yes	22.5.10	23.5.10	Allow items to be returned in the order in which they were added	No impact
ESMF_FieldBundleRead	N/A	timeslice	No	22.5.15	23.5.15	Consistency and completeness of the I/O interfaces	If keywords are not used for the optional argument, they must now be introduced.
ESMF_FieldBundleWrite	N/A	timeslice	No	22.5.30	23.5.30	Consistency and completeness of the I/O interfaces	If keywords are not used for the optional argument, they must now be introduced.
	N/A	overwrite	No	22.5.30	23.5.30	Consistency and completeness of the I/O interfaces	If keywords are not used for the optional argument, they must now be introduced.
	N/A	status	No	22.5.30	23.5.30	Consistency and completeness of the I/O interfaces	If keywords are not used for the optional argument, they must now be introduced.
ESMF_FieldRead	N/A	variableName	No	23.6.51	24.6.51	Consistency and completeness of the I/O interfaces	If keywords are not used for the optional argument, they must now be introduced.
ESMF_FieldRegrid	N/A	termorderflag	Yes	23.6.56	24.6.56	Support for bit-for- bit reproducibility	No impact
ESMF_FieldRegridStore	N/A	srcTermProcessing	Yes	23.6.58	24.6.58	Support for bit-for- bit reproducibility	No impact
	N/A	pipeLineDepth	Yes	23.6.58	24.6.58	Support for performance reproducibility	No impact
	N/A	ignoreDegenerate	Yes	23.6.58	24.6.58		No impact
	N/A	unmappedDstList	Yes	23.6.58	24.6.58	Get list of unmapped points	No impact
ESMF_FieldSMM	N/A	termorderflag	Yes	23.6.62	24.6.62	Support for bit-for- bit reproducibility	No impact
ESMF_FieldSMMStore	N/A	srcTermProcessing	Yes	23.6.64	24.6.64	Support for bit-for- bit reproducibility	No impact

API Changes							
Method name	Old value (530)	New value (610)	Marked backward compatible in 530	Interfaces affected (530)	Interface (610)	Rationale for change	Impact
						Support for	
	NI/A	ningling Double	Vaa	22.0.04	04.0.04	performance	No improved
	N/A	pipeLineDepth	Yes	23.6.64	24.6.64	reproducibility Support for bit-for-	No impact
ESMF FieldSMMStore	N/A	srcTermProcessing	Yes	23.6.65	24.6.65	bit reproducibility	No impact
iolacimiletore	107 (or or or mirror occorning	1.00	20.0.00	21.0.00	Support for	Tro impaot
						performance	
	N/A	pipeLineDepth	Yes	23.6.65	24.6.65	reproducibility	No impact
							If keywords are not
						Consistency and	used for the optional
FCMF Field\Mrite	NI/A	variableName	No	23.6.67	24.6.67	completeness of the I/O interfaces	argument, they must
ESMF_FieldWrite	N/A	variableName	No	23.0.07	24.0.07	the I/O interfaces	now be introduced. If keywords are not
						Consistency and	used for the optional
						completeness of	argument, they must
	N/A	overwrite	No	23.6.67	24.6.67	the I/O interfaces	now be introduced.
							If keywords are not
						Consistency and	used for the optional
						completeness of	argument, they must
	N/A	status	No	23.6.67	24.6.67	the I/O interfaces	now be introduced.
						Allow items to be returned in the	
						order in which they	
ESMF ArrayBundleGet	N/A	itemorderflag	Yes	24.5.9	25.5.9	were added	No impact
	1.07.1	nomer de mag				Allow items to be	- TO IIII PAGE
						returned in the	
						order in which they	
ESMF_ArrayBundleGet	N/A	itemorderflag	Yes	24.5.10	25.5.10	were added	No impact
							If keywords are not
						Consistency and completeness of	used for the optional
ESMF ArrayBundleRead	N/A	timeslice	No	24.5.15	25.5.15	the I/O interfaces	argument, they must now be introduced.
_Arraybundiercad	14//4	timesilee	140	24.0.10	20.0.10	the ho interfaces	If keywords are not
						Consistency and	used for the optional
						completeness of	argument, they must
ESMF_ArrayBundleWrite	N/A	overwrite	No	24.5.26	25.5.26	the I/O interfaces	now be introduced.
							If keywords are not
						Consistency and	used for the optional argument, they must
	N/A	status	No	24.5.26	25.5.26	completeness of the I/O interfaces	now be introduced.
	IWA	Status	INO	24.5.20	23.3.20	Support for bit-for-	now be introduced.
ESMF_ArrayRedistStore	N/A	pipeLineDepth	Yes	25.5.28	26.5.28	bit reproducibility	No impact
		1. l				Support for bit-for-	P
ESMF_ArrayRedistStore	N/A	pipeLineDepth	Yes	25.5.29	26.5.29	bit reproducibility	No impact
						Support for bit-for-	
ESMF_ArraySMM	N/A	termorderflag	Yes	25.5.33	26.5.33	bit reproducibility	No impact
ESME ArraySMMAStara	N/A	oroTormProcessin =	Voc	25 5 25	26 5 25	Support for bit-for-	No impact
ESMF_ArraySMMStore	IN/A	srcTermProcessing	Yes	25.5.35	26.5.35	bit reproducibility Support for	INO IIIIpaci
						performance	
	N/A	pipeLineDepth	Yes	25.5.35	26.5.35	reproducibility	No impact
		1. l				Support for bit-for-	P
ESMF_ArraySMMStore	N/A	srcTermProcessing	Yes	25.5.36	26.5.36	bit reproducibility	No impact

API Changes							
Method name	Old value (530)	New value (610)	Marked backward compatible in 530	Interfaces affected (530)	Interface (610)	Rationale for change	Impact
						Support for	
	N/A	pipeLineDepth	Yes	25.5.36	26.5.36	performance reproducibility	No impact
	INA	pipeLineDeptin	169	23.3.30	20.5.50	reproducibility	If keywords are not
						Consistency and	used for the optional
						completeness of	argument, they must
ESMF_ArrayWrite	N/A	overwrite	No	25.5.38	26.5.38	the I/O interfaces	now be introduced.
							If keywords are not
						Consistency and	used for the optional
						completeness of	argument, they must
	N/A	status	No	25.5.38	26.5.38	the I/O interfaces	now be introduced.
						Allow user to	
ESMF GridCreate	N/A	coordNames	No	28.6.14	29.6.13	select coordinate to use in file	No impact
LSIVII _GIIdGreate	IN/A	Cooldinatiles	INU	20.0.14	29.0.13	Support for	INO IIIIpact
						creating XGrid	
ESMF_XGridCreate	N/A	sideAMesh	No	31.6.4	32.6.4	from Mesh	No impact
			-		-	Support for	
						creating XGrid	
	N/A	sideBMesh	No	31.6.4	32.6.4	from Mesh	No impact
						Support for	
						creating XGrid	
	N/A	sideAMeshPriority	No	31.6.4	32.6.4	from Mesh	No impact
						Support for	
	N/A	sideBMeshPriority	No	31.6.4	32.6.4	creating XGrid from Mesh	No impact
	IN/A	SidebiviestiFilotity	INO	31.0.4	32.0.4	Support for	INO IITIPACI
						creating XGrid	
ESMF_XGridCreateFromSparseMat	N/A	sideAMesh	No	31.6.5	32.6.5	from Mesh	No impact
						Support for	
						creating XGrid	
	N/A	sideBMesh	No	31.6.5	32.6.5	from Mesh	No impact
						Support for	
				0.4.0.		creating XGrid	
	N/A	sideAMeshPriority	No	31.6.5	32.6.5	from Mesh	No impact
						Support for	
	N/A	sideBMeshPriority	No	31.6.5	32.6.5	creating XGrid from Mesh	No impact
	IVA	SIGCEINICSHI HOHLY	IVO	01.0.0	02.0.0	Support for	140 πηρασί
						retrieving a Mesh	
ESMF_XGridGet	N/A	sideAMesh	No	31.6.7	32.6.7	from XGrid	No impact
						Support for	
						retrieving a Mesh	
	N/A	sideBMesh	No	31.6.7	32.6.7	from XGrid	No impact
						Presence test for	
ESME ConfigEindLobol	N/A	isPresent	Voo	43.3.4	44.3.4	label without error	No impact
ESMF_ConfigFindLabel	IN/A	isrieseill	Yes	43.3.4	44.3.4	being generated	INO IMPACE
Removed Arguments							
						Consistency and	
						completeness of	Use the new "status"
ESMF_FieldWrite	append	N/A	No	23.6.67	24.6.67	the I/O interfaces	argument

API Changes							
Method name	Old value (530)	New value (610)	Marked backward compatible in 530	Interfaces affected (530)	Interface (610)	Rationale for change	Impact
ESMF_ArrayWrite	append	N/A	No	25.5.38	26.5.38	Consistency and completeness of the I/O interfaces	Use the new "status" argument
Arguments Name Changes							
7 agamente riame enangee						Support both	
ESMF_XGridCreate	sideA	sideAGrid	No	31.6.4	32.6.4		Use the new argument keyword.
	sideB	sideBGrid	No	31.6.4	32.6.4	Support both Meshes and Grids in XGrid	Use the new argument keyword.
	sideAPriority	sideAGridPriority	No	31.6.4	32.6.4	Support both Meshes and Grids in XGrid	Use the new argument keyword.
	sideBPriority	sideBGridPriority	No	31.6.4	32.6.4	Support both Meshes and Grids in XGrid	Use the new argument keyword.
ESMF_XGridCreateFromSparseMat	: sideA	sideAGrid	No	31.6.5	32.6.5	Support both Meshes and Grids in XGrid	Use the new argument keyword.
	sideB	sideBGrid	No	31.6.5	32.6.5	in XGrid	Use the new argument keyword.
	sideAPriority	sideAGridPriority	No	31.6.5	32.6.5	Support both Meshes and Grids in XGrid	Use the new argument keyword.
	sideBPriority	sideBGridPriority	No	31.6.5	32.6.5	Support both Meshes and Grids in XGrid	Use the new argument keyword.
ESMF_XGridGet	sideA	sideAGrid	No	31.6.7	32.6.7	in XGrid	Use the new argument keyword.
	sideB	sideBGrid	No	31.6.7	32.6.7	Support both Meshes and Grids in XGrid	Use the new argument keyword.
Attribute Convention and Purpose Name Changes							
						Change values to a more usable and	
Attribute package methods	CIM	CIM 1.5	No	36.11.1-36.11.28	37.11.1-37.11.28	consistent format.	Use the new value.
Attribute package methods	Model Component Simulation Description	ModelComp	No	36.11.1-36.11.28	37.11.1-37.11.28	Change values to a more usable and consistent format.	Use the new value.
						Change values to a more usable and	
Attribute package methods	Platform Description	Platform	No	36.11.1-36.11.28	37.11.1-37.11.28	consistent format. Change values to	Use the new value.
Attribute package methods	Responsible Party Description	RespParty	No	36.11.1-36.11.28	37.11.1-37.11.28	a more usable and consistent format.	Use the new value.

API Changes						D. "	
Method name	Old value (530)	New value (610)	Marked backward compatible in 530	Interfaces affected (530)	Interface (610)	Rationale for change	Impact
						Change values to a more usable and	
Attribute package methods	Citation Description	Citation	No	36.11.1-36.11.28	37.11.1-37.11.28	consistent format.	Use the new value.
	Scientific Properties					Update values according to new	
Attribute package methods	Description	SciProp	No	36.11.1-36.11.28	37.11.1-37.11.28	conventions.	Use the new value.
	Component Properties					Update values according to new	
Attribute package methods	Description	CompProp	No	36.11.1-36.11.28	37.11.1-37.11.28	conventions.	Use the new value.
						Change values to a more usable and	
Attribute package methods	Inputs Description	Inputs	No	36.11.1-36.11.28	37.11.1-37.11.28	consistent format.	Use the new value.
Added Interfaces							
						Allow automatic documentation of	
TCMT CaiCanan Againmeant(-)	NI/A	CaiCama anaimmeant(-)	NI/A	N1/A	17.4.4	model metadata in	No imposot
ESMF_SciCompAssignment(=)	N/A	SciComp assignment(=)	N/A	N/A	17.4.1	CESM Allow automatic	No impact
						documentation of	
ESMF_SciCompOperator(==)	N/A	SciComp operator(==)	N/A	N/A	17.4.2	model metadata in CESM	No impact
						Allow automatic documentation of	
						model metadata in	
ESMF_SciCompOperator(/=)	N/A	SciComp operator(/=)	N/A	N/A	17.4.3	CESM Allow automatic	No impact
						documentation of	
ESMF_SciCompCreate	N/A	ESMF_SciCompCreate	N/A	N/A	17.4.4	model metadata in CESM	No impact
_eoreomperedic	1477	Zeim _ediedinperdate				Allow automatic	Tto impact
						documentation of model metadata in	
ESMF_SciCompDestroy	N/A	ESMF_SciCompDestroy	N/A	N/A	17.4.5	CESM	No impact
						Allow automatic documentation of	
ESMF_SciCompGet	N/A	ESMF_SciCompGet	N/A	N/A	17.4.6	model metadata in CESM	No impact
LOWI _OCIOOMPOEt	INA	Lowi _ocioompoet	IN/A	IV/A	17.4.0	Allow automatic	140 impact
						documentation of model metadata in	
ESMF_SciCompPrint	N/A	ESMF_SciCompPrint	N/A	N/A	17.4.7	CESM	No impact
						Allow automatic documentation of	
-0.45 0 'O C '		EOME 0 10 0 1	\		17.40	model metadata in	
ESMF_SciCompSet	N/A	ESMF_SciCompSet	N/A	N/A	17.4.8	CESM Allow automatic	No impact
						documentation of	
ESMF_SciCompValidate	N/A	ESMF_SciCompValidate	N/A	N/A	17.4.9	model metadata in CESM	No impact
<u>-</u>						Consistency with	
ESMF_StateRemove	N/A	ESMF_StateRemove	N/A	N/A	19.7.15	other container classes	No impact

API Changes							
Method name	Old value (530)	New value (610)	Marked backward compatible in 530	Interfaces affected (530)	Interface (610)	Rationale for change	Impact
ESMF_RegridWeightGen	N/A	ESMF_RegridWeightGer		N/A	22.3.1	Allow user to generate regrid weights from grid files. The weights are written to a file.	No impact
LSivii _NegiluvveigiliGeli	IN/A	LSivii _RegilavveightGei	IN/A	IN/A	22.5.1	Standard ESMF	No impact
ESMF_RouteHandlePrint	N/A	ESMF_RouteHandlePrint	N/A	N/A	34.5.1	class method	No impact
ESMF_AttributeGet ESMF_AttributeGet	N/A	ESMF_AttributeGet ESMF_AttributeGet	N/A	N/A	37.11.8 37.11.10	Allow retrieval of internal object information Allow retrieval of internal object information	No impact
ESMF AttributeSet	N/A	ESMF AttributeSet	N/A	N/A	37.11.28	Specify whether information is to be used for the retrieval of internal object information	
ESMF_UtilSort	N/A	ESMF_UtilSort	N/A	N/A	48.4.6	Add a general purpose in-place sorting utility	No impact
Deprecated Interfaces							
ESMF_StateRemove	ESMF_StateRemove	N/A	Yes	18.7.14	19.7.14	Consistency with other container classes	No impact - but migration to the new ESMF_StateRemove interface 19.7.15 is recommended
Removed Interfaces ESMF GridCreate	ESMF GridCreate	N/A	No	28.6.13	N/A	Replace GFDL GridSpec package with the CIM 1.5.1 grids package	Code relying on this interface will no longer work