

| API Changes | | | | | | | |
|---------------------------------|-----------------|----------------------------|-----------------------------------|-----------------|-----------------|---|------------|
| Method name | Old value (800) | New value (810) | Marked backward compatible in 800 | Interface (800) | Interface (810) | Rationale for change | Impact |
| Added Optional Arguments | | | | | | | |
| ESMF_GridCompSetVMMMaxPEs | N/A | minStackSize | No | 17.4.25 | 17.4.25 | Allow user to specify the minimum size of stack size for the created Pthread executing as PET. | No impact. |
| ESMF_GridCompSetVMMMaxPEs | N/A | openMpHandling | No | 17.4.25 | 17.4.25 | Provide control over ESMF-aware OpenMP threading. | No impact. |
| ESMF_GridCompSetVMMMaxPEs | N/A | openMpNumThreads | No | 17.4.25 | 17.4.25 | Allow user to set the number of OpenMP threads in the team running under each PET. | No impact. |
| ESMF_GridCompSetVMMMaxThreads | N/A | minStackSize | No | 17.4.26 | 17.4.26 | Allow user to specify the minimum size of stack size for the created Pthread executing as PET. | No impact. |
| ESMF_GridCompSetVMMMinThreads | N/A | minStackSize | No | 17.4.27 | 17.4.27 | Allow user to specify the minimum size of stack size for the created Pthread executing as PET. | No impact. |
| ESMF_CplCompSetVMMMaxPEs | N/A | minStackSize | No | 18.4.25 | 18.4.25 | Allow user to specify the minimum size of stack size for the created Pthread executing as PET. | No impact. |
| ESMF_CplCompSetVMMMaxThreads | N/A | minStackSize | No | 18.4.26 | 18.4.26 | Allow user to specify the minimum size of stack size for the created Pthread executing as PET. | No impact. |
| ESMF_CplCompSetVMMMinThreads | N/A | minStackSize | No | 18.4.27 | 18.4.27 | Allow user to specify the minimum size of stack size for the created Pthread executing as PET. | No impact. |
| ESMF_StateCreate | N/A | vm | Yes | 21.7.6 | 21.7.6 | Support object creation on a different VM than that of the current context. | No impact. |
| ESMF_StateDestroy | N/A | noGarbage | Yes | 21.7.7 | 21.7.7 | Allow an object to be completely destroyed without leaving a remnant in the garbage collection. | No impact. |
| ESMF_RegridWeightGen | N/A | rhFile | No | 24.3.1 | 24.3.1 | Allow for writing an ESMF_RouteHandle to file. | No impact. |
| ESMF_FieldBundleRedistStore | N/A | ignoreUnmatchedIndicesFlag | Yes | 25.5.22 | 25.5.22 | Support cases where source and destination side do not cover the exact same index space. | No Impact |
| ESMF_FieldBundleRedistStore | N/A | ignoreUnmatchedIndicesFlag | Yes | 25.5.23 | 25.5.23 | Support cases where source and destination side do not cover the exact same index space. | No Impact |
| ESMF_FieldBundleSMM | N/A | zeroregionflag | Yes | 25.5.33 | 25.5.33 | Replacing the deprecated 'zeroregion' argument, providing greater flexibility in setting the zero region for individual bundle members. | No Impact |
| ESMF_FieldBundleSMMStore | N/A | ignoreUnmatchedIndicesFlag | Yes | 25.5.35 | 25.5.35 | Support cases where source and destination side do not cover the exact same index space. | No Impact |
| ESMF_FieldBundleSMMStore | N/A | ignoreUnmatchedIndicesFlag | Yes | 25.5.36 | 25.5.36 | Support cases where source and destination side do not cover the exact same index space. | No Impact |
| ESMF_FieldBundleSMMStore | N/A | ignoreUnmatchedIndicesFlag | No | 25.5.37 | 25.5.37 | Support cases where source and destination side do not cover the exact same index space. | No Impact |
| ESMF_FieldCreate | N/A | pinflag | Yes | 26.6.5 | 26.6.5 | Support DE sharing between PETs on the same single system image (SSI). | No impact. |
| ESMF_FieldCreate | N/A | pinflag | Yes | 26.6.6 | 26.6.6 | Support DE sharing between PETs on the same single system image (SSI). | No impact. |

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| ESMF_FieldCreate | N/A | pinflag | No | 26.6.10 | 26.6.10 | Support DE sharing between PETs on the same single system image (SSI). | No impact. |
| ESMF_FieldCreate | N/A | pinflag | No | 26.6.11 | 26.6.11 | Support DE sharing between PETs on the same single system image (SSI). | No impact. |
| ESMF_FieldCreate | N/A | pinflag | No | 26.6.15 | 26.6.15 | Support DE sharing between PETs on the same single system image (SSI). | No impact. |
| ESMF_FieldCreate | N/A | indexflag | No | 26.6.15 | 26.6.15 | To be consistent with the other FieldCreate APIs that take indexflag as an argument. | No impact |
| ESMF_FieldCreate | N/A | pinflag | No | 26.6.16 | 26.6.16 | Support DE sharing between PETs on the same single system image (SSI). | No impact. |
| ESMF_FieldCreate | N/A | indexflag | No | 26.6.16 | 26.6.16 | To be consistent with the other FieldCreate APIs that take indexflag as an argument. | No impact. |
| ESMF_FieldCreate | N/A | pinflag | No | 26.6.20 | 26.6.20 | Support DE sharing between PETs on the same single system image (SSI). | No impact. |
| ESMF_FieldCreate | N/A | pinflag | No | 26.6.21 | 26.6.21 | Support DE sharing between PETs on the same single system image (SSI). | No impact. |
| ESMF_FieldEmptySet | N/A | indexflag | No | 26.6.40 | 26.6.40 | To be consistent with the other FieldCreate APIs that take indexflag as an argument. | No impact. |
| ESMF_FieldGet | N/A | localarrayList | Yes | 26.6.45 | 26.6.45 | Support DE sharing between PETs on the same single system image (SSI). | No impact. |
| ESMF_FieldGet | N/A | ssiLocalDeCount | Yes | 26.6.45 | 26.6.45 | Support DE sharing between PETs on the same single system image (SSI). | No impact. |
| ESMF_FieldGet | N/A | localDEToDeMap | Yes | 26.6.45 | 26.6.45 | Support DE sharing between PETs on the same single system image (SSI). | No impact. |
| ESMF_FieldGet | N/A | minIndex | Yes | 26.6.45 | 26.6.45 | Allow users to query global and PET local bound information such as their usage with HDF5 IO and in other situation where the bounds information will be useful. | No impact. |
| ESMF_FieldGet | N/A | maxIndex | Yes | 26.6.45 | 26.6.45 | Allow users to query global and PET local bound information such as their usage with HDF5 IO and in other situation where the bounds information will be useful. | No impact. |
| ESMF_FieldGet | N/A | elementCount | Yes | 26.6.45 | 26.6.45 | Allow users to query global and PET local bound information such as their usage with HDF5 IO and in other situation where the bounds information will be useful. | No impact. |
| ESMF_FieldGet | N/A | localMinIndex | Yes | 26.6.45 | 26.6.45 | Allow users to query global and PET local bound information such as their usage with HDF5 IO and in other situation where the bounds information will be useful. | No impact. |
| ESMF_FieldGet | N/A | localMaxIndex | Yes | 26.6.45 | 26.6.45 | Allow users to query global and PET local bound information such as their usage with HDF5 IO and in other situation where the bounds information will be useful. | No impact. |

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| ESMF_FieldGet | N/A | localElementCount | Yes | 26.6.45 | 26.6.45 | Allow users to query global and PET local bound information such as their usage with HDF5 IO and in other situation where the bounds information will be useful. | No impact. |
| ESMF_FieldRegridStore | N/A | checkflag | Yes | 26.6.60 | 26.6.60 | Allow users to optionally turn on more expensive error checking. | No Impact |
| ESMF_ArrayBundleRedistStore | N/A | ignoreUnmatchedIndicesFlag | Yes | 27.5.19 | 27.5.19 | Support cases where source and destination side do not cover the exact same index space. | No Impact |
| ESMF_ArrayBundleRedistStore | N/A | ignoreUnmatchedIndicesFlag | Yes | 27.5.20 | 27.5.20 | Support cases where source and destination side do not cover the exact same index space. | No Impact |
| ESMF_ArrayBundleSMM | N/A | zeroregionflag | Yes | 27.5.23 | 27.5.23 | Replacing the deprecated 'zeroregion' argument, providing greater flexibility in setting the zero region for individual bundle members. | No Impact |
| ESMF_ArrayBundleSMMStore | N/A | ignoreUnmatchedIndicesFlag | Yes | 27.5.25 | 27.5.25 | Support cases where source and destination side do not cover the exact same index space. | No Impact |
| ESMF_ArrayBundleSMMStore | N/A | ignoreUnmatchedIndicesFlag | Yes | 27.5.26 | 27.5.26 | Support cases where source and destination side do not cover the exact same index space. | No Impact |
| ESMF_ArrayCreate | N/A | datacopyflag | Yes | 28.5.15 | 28.5.15 | Allow to select between different copy options. | No Impact |
| ESMF_ArrayCreate | N/A | delayout | Yes | 28.5.15 | 28.5.15 | Provide a way to easily change the underlying DE -> PET mapping when creating a new Array from an existing Array. | No Impact |
| ESMF_LocStreamDestroy | N/A | noGarbage | Yes | 32.4.15 | 32.4.15 | Allow an object to be completely destroyed without leaving a remnant in the garbage collection. | No impact. |
| ESMF_MeshCreate | N/A | name | No | 33.4.6 | 33.4.6 | Allow a name to specified for a Mesh. | No impact. |
| ESMF_MeshCreate | N/A | name | No | 33.4.7 | 33.4.7 | Allow a name to specified for a Mesh. | No impact. |
| ESMF_MeshCreate | N/A | name | No | 33.4.8 | 33.4.8 | Allow a name to specified for a Mesh. | No impact. |
| ESMF_MeshCreate | N/A | name | No | 33.4.9 | 33.4.9 | Allow a name to specified for a Mesh. | No impact. |
| ESMF_MeshCreate | N/A | name | No | 33.4.10 | 33.4.10 | Allow a name to specified for a Mesh. | No impact. |
| ESMF_MeshCreate | N/A | name | No | 33.4.13 | 33.4.13 | Allow a name to specified for a Mesh. | No impact. |
| ESMF_MeshDestroy | N/A | noGarbage | Yes | 33.4.14 | 33.4.14 | Allow an object to be completely destroyed without leaving a remnant in the garbage collection. | No impact. |
| ESMF_MeshEmptyCreate | N/A | name | No | 33.4.15 | 33.4.15 | Allow a name to specified for a Mesh. | No impact. |
| ESMF_XGridDestroy | N/A | noGarbage | Yes | 34.6.7 | 34.6.7 | Allow an object to be completely destroyed without leaving a remnant in the garbage collection. | No impact. |
| ESMF_DistGridCreate | N/A | indexTK | Yes | 35.6.6 | 35.6.6 | Support explicit selection between 32-bit and 64-bit sequence indices. | No impact. |
| ESMF_DistGridCreate | N/A | indexTK | Yes | 35.6.7 | 35.6.7 | Support explicit selection between 32-bit and 64-bit sequence indices. | No impact. |
| ESMF_DistGridGet | N/A | elementCountPTilel8 | Yes | 35.6.15 | 35.6.15 | Provide access to 64-bit information. | No impact. |
| ESMF_DistGridGet | N/A | elementCountPDel8 | Yes | 35.6.15 | 35.6.15 | Provide access to 64-bit information. | No impact. |

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| ESMF_DistGridGet | N/A | indexflag | Yes | 35.6.15 | 35.6.15 | Allow the user to query the indexing scheme used by the object. | No impact. |
| ESMF_DistGridGet | N/A | indexTK | Yes | 35.6.15 | 35.6.15 | Support explicit selection between 32-bit and 64-bit sequence indices. | No impact. |
| ESMF_DistGridGet | N/A | seqIndexListI8 | Yes | 35.6.16 | 35.6.16 | Provide access to 64-bit information. | No impact. |
| ESMF_DistGridGet | N/A | elementCountI8 | Yes | 35.6.16 | 35.6.16 | Provide access to 64-bit information. | No impact. |
| ESMF_VMGet | N/A | currentSsiPe | Yes | 49.5.16 | 49.6.18 | Provide convenient access to the SSI-local PE number on which the current PET is executing. | No impact. |
| ESMF_VMGet | N/A | ssiMap | Yes | 49.5.16 | 49.6.18 | Provide PET->SSI mapping information. | No impact. |
| ESMF_AttributeAdd | N/A | attrList | No | 39.11.1 | 55.0.5 | Streamline Attribute interface to work efficiently with Info back end. | No impact. |
| ESMF_AttributeAdd | N/A | nestConvention | No | 39.11.2 | 55.0.6 | Streamline Attribute interface to work efficiently with Info back end. | No impact. |
| ESMF_AttributeAdd | N/A | nestPurpose | No | 39.11.3 | 55.0.7 | Streamline Attribute interface to work efficiently with Info back end. | No impact. |
| ESMF_AttributeRemove | N/A | attnestflag | No | 39.11.35 | 55.0.17 | Streamline Attribute interface to work efficiently with Info back end. | No impact. |
| ESMF_AttributeRemove | N/A | attnestflag | No | 39.11.36 | 55.0.18 | Streamline Attribute interface to work efficiently with Info back end. | No impact. |
| ESMF_AttributeSet | N/A | itemcount | No | 39.11.37 | 55.0.19 | Streamline Attribute interface to work efficiently with Info back end, this argument is a noop. | No impact. |
| ESMF_AttributeSet | N/A | attnestflag | No | 39.11.37 | 55.0.19 | Streamline Attribute interface to work efficiently with Info back end, this argument is a noop. | No impact. |
| ESMF_AttributeSet | N/A | attnestflag | No | 39.11.39 | 55.0.20 | Streamline Attribute interface to work efficiently with Info back end, this argument is a noop. | No impact. |
| ESMF_AttributeSet | N/A | itemcount | No | 39.11.40 | 55.0.21 | Streamline Attribute interface to work efficiently with Info back end, this argument is a noop. | No impact. |
| ESMF_AttributeSet | N/A | attnestflag | No | 39.11.40 | 55.0.21 | Streamline Attribute interface to work efficiently with Info back end, this argument is a noop. | No impact. |
| ESMF_AttributeSet | N/A | itemcount | No | 39.11.42 | 55.0.22 | Streamline Attribute interface to work efficiently with Info back end, this argument is a noop. | No impact. |
| ESMF_AttributeSet | N/A | attnestflag | No | 39.11.42 | 55.0.22 | Streamline Attribute interface to work efficiently with Info back end, this argument is a noop. | No impact. |
| Changed Arguments | | | | | | | |
| weightFile | not optional | optional | No | 24.3.1 ESMF_RegridWeightGen | 24.3.1 | Allow the option of running the method without writing weights to a file. | No Impact. |
| termorderflag | no target | target | Yes | 27.5.23 ESMF_ArrayBundleSMM | 27.5.23 | The internal implementation requires a dummy argument with 'target' attribute. | No Impact. |
| vm | not optional | optional | Yes | 49.5.10 ESMF_VMBarrier | 49.6.10 | Support easier use when calling on the current VM. | No Impact. |
| Removed Arguments | | | | | | | |

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| ESMF_StateReconcile | attreconflag | N/A | No | 21.7.14 | 21.7.14 | The ESMF_Attribute class was replaced with ESMF_Info, and this is no longer needed. | If this flag was specified it should be removed. |
| ESMF_AttributeGet | attPackInstanceName | N/A | No | 39.11.11 | 55.0.9 | The ESMF_Attribute class was replaced with ESMF_Info, and this is no longer needed. | If this flag was specified it should be removed. |
| ESMF_AttributeGet | attPackInstanceName | N/A | No | 39.11.13 | 55.0.10 | The ESMF_Attribute class was replaced with ESMF_Info, and this is no longer needed. | If this flag was specified it should be removed. |
| ESMF_AttributeGetAttPack | attPackInstanceName | N/A | No | 39.11.23 | 55.0.16 | The ESMF_Attribute class was replaced with ESMF_Info, and this is no longer needed. | If this flag was specified it should be removed. |
| ESMF_AttributeRemove | attPackInstanceName | N/A | No | 39.11.36 | 55.0.18 | The ESMF_Attribute class was replaced with ESMF_Info, and this is no longer needed. | If this flag was specified it should be removed. |
| ESMF_AttributeSet | attPackInstanceName | N/A | No | 39.11.40 | 55.0.21 | The ESMF_Attribute class was replaced with ESMF_Info, and this is no longer needed. | If this flag was specified it should be removed. |
| ESMF_AttributeSet | attPackInstanceName | N/A | No | 39.11.42 | 55.0.22 | The ESMF_Attribute class was replaced with ESMF_Info, and this is no longer needed. | If this flag was specified it should be removed. |
| ESMF_AttributeUpdate | reconcile | N/A | No | 39.11.43 | 55.0.23 | The ESMF_Attribute class was replaced with ESMF_Info, and this is no longer needed. | If this flag was specified it should be removed. |
| Deprecated Arguments | | | | | | | |
| ESMF_FieldBundleSMM | zeroregion | | | 25.5.33 | 25.5.33 | The new argument 'zeroregionflag', providing greater flexibility was introduced | No immediate impact. However, user code that uses the 'zeroregion' argument should be migrated to using the 'zeroregionflag' argument instead. |
| ESMF_ArrayBundleSMM | zeroregion | | | 27.5.23 | 27.5.23 | The new argument 'zeroregionflag', providing greater flexibility was introduced | No immediate impact. However, user code that uses the 'zeroregion' argument should be migrated to using the 'zeroregionflag' argument instead. |
| Argument Intent Changes | | | | | | | |
| ESMF_AttributeAdd | intent(inout) attpack | intent(out) attpack | No | 39.11.1 | 55.0.5 | Accidental change of the intent(). This change will be reverted in the next release. | No impact. |
| ESMF_AttributeAdd | intent(out) rc | intent(inout) rc | No | 39.11.1 | 55.0.5 | Accidental change of the intent(). This change will be reverted in the next release. | If the actual argument provided by the caller is a dummy argument with intent(out), the compiler might flag an intent() incompatibility. One way to fix this situation is to introduce a local variable to pass in as the actual argument, and after the call copy it back into the intent(out) dummy variable. |

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| ESMF_AttributeGet | intent(out) rc | intent(inout) rc | No | 39.11.7 | 55.0.7 | Accidental change of the intent(). This change will be reverted in the next release. | If the actual argument provided by the caller is a dummy argument with intent(out), the compiler might flag an intent() incompatibility. One way to fix this situation is to introduce a local variable to pass in as the actual argument, and after the call copy it back into the intent(out) dummy variable. |
| ESMF_AttributeGet | intent(out) rc | intent(inout) rc | No | 39.11.9 | 55.0.8 | Accidental change of the intent(). This change will be reverted in the next release. | If the actual argument provided by the caller is a dummy argument with intent(out), the compiler might flag an intent() incompatibility. One way to fix this situation is to introduce a local variable to pass in as the actual argument, and after the call copy it back into the intent(out) dummy variable. |
| ESMF_AttributeGet | intent(out) rc | intent(inout) rc | No | 39.11.11 | 55.0.9 | Accidental change of the intent(). This change will be reverted in the next release. | If the actual argument provided by the caller is a dummy argument with intent(out), the compiler might flag an intent() incompatibility. One way to fix this situation is to introduce a local variable to pass in as the actual argument, and after the call copy it back into the intent(out) dummy variable. |
| ESMF_AttributeGet | intent(out) rc | intent(inout) rc | No | 39.11.13 | 55.0.10 | Accidental change of the intent(). This change will be reverted in the next release. | If the actual argument provided by the caller is a dummy argument with intent(out), the compiler might flag an intent() incompatibility. One way to fix this situation is to introduce a local variable to pass in as the actual argument, and after the call copy it back into the intent(out) dummy variable. |
| ESMF_AttributeGet | intent(out) rc | intent(inout) rc | No | 39.11.15 | 55.0.11 | Accidental change of the intent(). This change will be reverted in the next release. | If the actual argument provided by the caller is a dummy argument with intent(out), the compiler might flag an intent() incompatibility. One way to fix this situation is to introduce a local variable to pass in as the actual argument, and after the call copy it back into the intent(out) dummy variable. |
| ESMF_AttributeGet | intent(out) count | intent(inout) count | No | 39.11.16 | 55.0.12 | Accidental change of the intent(). This change will be reverted in the next release. | If the actual argument provided by the caller is a dummy argument with intent(out), the compiler might flag an intent() incompatibility. One way to fix this situation is to introduce a local variable to pass in as the actual argument, and after the call copy it back into the intent(out) dummy variable. |

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| ESMF_AttributeGet | intent(out) rc | intent(inout) rc | No | 39.11.16 | 55.0.13 | Accidental change of the intent(). This change will be reverted in the next release. | If the actual argument provided by the caller is a dummy argument with intent(out), the compiler might flag an intent() incompatibility. One way to fix this situation is to introduce a local variable to pass in as the actual argument, and after the call copy it back into the intent(out) dummy variable. |
| ESMF_AttributeGet | intent(out) rc | intent(inout) rc | No | 39.11.18 | 55.0.14 | Accidental change of the intent(). This change will be reverted in the next release. | If the actual argument provided by the caller is a dummy argument with intent(out), the compiler might flag an intent() incompatibility. One way to fix this situation is to introduce a local variable to pass in as the actual argument, and after the call copy it back into the intent(out) dummy variable. |
| ESMF_AttributeGet | intent(out) rc | intent(inout) rc | No | 39.11.20 | 55.0.15 | Accidental change of the intent(). This change will be reverted in the next release. | If the actual argument provided by the caller is a dummy argument with intent(out), the compiler might flag an intent() incompatibility. One way to fix this situation is to introduce a local variable to pass in as the actual argument, and after the call copy it back into the intent(out) dummy variable. |
| ESMF_AttributeRemove | intent(out) rc | intent(inout) rc | No | 39.11.35 | 55.0.17 | Accidental change of the intent(). This change will be reverted in the next release. | If the actual argument provided by the caller is a dummy argument with intent(out), the compiler might flag an intent() incompatibility. One way to fix this situation is to introduce a local variable to pass in as the actual argument, and after the call copy it back into the intent(out) dummy variable. |
| ESMF_AttributeRemove | intent(out) rc | intent(inout) rc | No | 39.11.36 | 55.0.18 | Accidental change of the intent(). This change will be reverted in the next release. | If the actual argument provided by the caller is a dummy argument with intent(out), the compiler might flag an intent() incompatibility. One way to fix this situation is to introduce a local variable to pass in as the actual argument, and after the call copy it back into the intent(out) dummy variable. |
| ESMF_AttributeSet | intent(out) rc | intent(inout) rc | No | 39.11.37 | 55.0.19 | Accidental change of the intent(). This change will be reverted in the next release. | If the actual argument provided by the caller is a dummy argument with intent(out), the compiler might flag an intent() incompatibility. One way to fix this situation is to introduce a local variable to pass in as the actual argument, and after the call copy it back into the intent(out) dummy variable. |
| ESMF_AttributeSet | intent(in) attpack | intent(inout) attpack | No | 39.11.39 | 55.0.20 | Accidental change of the intent(). This change will be reverted in the next release. | No impact. |

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| ESMF_AttributeSet | intent(out) rc | intent(inout) rc | No | 39.11.39 | 55.0.20 | Accidental change of the intent(). This change will be reverted in the next release. | If the actual argument provided by the caller is a dummy argument with intent(out), the compiler might flag an intent() incompatibility. One way to fix this situation is to introduce a local variable to pass in as the actual argument, and after the call copy it back into the intent(out) dummy variable. |
| ESMF_AttributeSet | intent(out) rc | intent(inout) rc | No | 39.11.40 | 55.0.21 | Accidental change of the intent(). This change will be reverted in the next release. | If the actual argument provided by the caller is a dummy argument with intent(out), the compiler might flag an intent() incompatibility. One way to fix this situation is to introduce a local variable to pass in as the actual argument, and after the call copy it back into the intent(out) dummy variable. |
| ESMF_AttributeSet | intent(out) rc | intent(inout) rc | No | 39.11.42 | 55.0.22 | Accidental change of the intent(). This change will be reverted in the next release. | If the actual argument provided by the caller is a dummy argument with intent(out), the compiler might flag an intent() incompatibility. One way to fix this situation is to introduce a local variable to pass in as the actual argument, and after the call copy it back into the intent(out) dummy variable. |
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| Added Methods | | | | | | | |
| ESMF_InitializePreMPI | N/A | N/A | N/A | N/A | 16.4.2 | Only needed for cases where MPI is initialized explicitly by user code, and the code is using ESMF-aware resource management (e.g. for OpenMP threading). | No Impact. |
| ESMF_StateSet | N/A | N/A | N/A | N/A | 21.7.18 | All characteristics (e.g. stateIntent) to be modified in an existing State object. | No Impact. |
| ESMF_MethodAddReplace | N/A | N/A | N/A | N/A | 22.4.7 | Replacing potential previous attached method under the same label and index. | No Impact. |
| ESMF_MethodAddReplace | N/A | N/A | N/A | N/A | 22.4.8 | Replacing potential previous attached method under the same label and index. | No Impact. |
| ESMF_MethodAddReplace | N/A | N/A | N/A | N/A | 22.4.9 | Replacing potential previous attached method under the same label and index. | No Impact. |
| ESMF_MethodAddReplace | N/A | N/A | N/A | N/A | 22.4.10 | Replacing potential previous attached method under the same label and index. | No Impact. |
| ESMF_MethodAddReplace | N/A | N/A | N/A | N/A | 22.4.11 | Replacing potential previous attached method under the same label and index. | No Impact. |
| ESMF_MethodAddReplace | N/A | N/A | N/A | N/A | 22.4.12 | Replacing potential previous attached method under the same label and index. | No Impact. |

| API Changes | | | | | | | |
|-------------------|-----------------|-----------------|-----------------------------------|-----------------|-----------------|--|---|
| Method name | Old value (800) | New value (810) | Marked backward compatible in 800 | Interface (800) | Interface (810) | Rationale for change | Impact |
| ESMF_MethodGet | N/A | N/A | N/A | N/A | 22.4.16 | Provide access information about attached method. | No Impact. |
| ESMF_MethodGet | N/A | N/A | N/A | N/A | 22.4.17 | Provide access information about attached method. | No Impact. |
| ESMF_MethodGet | N/A | N/A | N/A | N/A | 22.4.18 | Provide access information about attached method. | No Impact. |
| ESMF_FieldSync | N/A | N/A | N/A | N/A | 26.6.65 | Synchronization method across PETs required for safe access to shared DEs. | No impact. |
| ESMF_MeshSet | N/A | N/A | N/A | N/A | 33.4.19 | Provide the capability to change some information in an existing Mesh. | No Impact. |
| ESMF_MeshGetMOAB | N/A | N/A | N/A | N/A | 33.4.20 | Enable the user to check if MOAB is being used for internal mesh representation. | No Impact. |
| ESMF_DistGridSet | N/A | N/A | N/A | N/A | 35.6.21 | Provide a way to set DE specific values, such as sequence indices. | No Impact. |
| ESMF_TimeSet | N/A | N/A | N/A | N/A | 42.4.16 | Support ISO format string to set Time object. | No Impact. |
| ESMF_VMEpochEnter | N/A | N/A | N/A | N/A | 49.6.14 | This call is part of the VM epoch user interface, offering advanced communication optimizations. | No Impact. |
| ESMF_VMEpochExit | N/A | N/A | N/A | N/A | 49.6.15 | This call is part of the VM epoch user interface, offering advanced communication optimizations. | No Impact. |
| ESMF_AttributeAdd | N/A | N/A | N/A | N/A | 55.0.4 | The new Info back end to Attribute requires this interface for full compatibility. | No Impact. |
| | | | | | | | |
| | | | | | | | |
| Removed Methods | | | | | | | |
| ESMF_AttributeAdd | N/A | N/A | No | 39.11.2 | N/A | The ESMF_Attribute class was replaced with ESMF_Info, and this is no longer needed. | Code that uses this entry point of ESMF_AttributeAdd() must be changed to use the corresponding ESMF_Info method. |
| ESMF_AttributeAdd | N/A | N/A | No | 39.11.3 | N/A | The ESMF_Attribute class was replaced with ESMF_Info, and this is no longer needed. | Code that uses this entry point of ESMF_AttributeAdd() must be changed to use the corresponding ESMF_Info method. |
| ESMF_AttributeAdd | N/A | N/A | No | 39.11.4 | N/A | The ESMF_Attribute class was replaced with ESMF_Info, and this is no longer needed. | Code that uses this entry point of ESMF_AttributeAdd() must be changed to use the corresponding ESMF_Info method. |
| ESMF_AttributeAdd | N/A | N/A | No | 39.11.5 | N/A | The ESMF_Attribute class was replaced with ESMF_Info, and this is no longer needed. | Code that uses this entry point of ESMF_AttributeAdd() must be changed to use the corresponding ESMF_Info method. |
| ESMF_AttributeGet | N/A | N/A | No | 39.11.8 | N/A | The ESMF_Attribute class was replaced with ESMF_Info, and this is no longer needed. | Code that uses this entry point of ESMF_AttributeGet() must be changed to use the corresponding ESMF_Info method. |
| ESMF_AttributeGet | N/A | N/A | No | 39.11.10 | N/A | The ESMF_Attribute class was replaced with ESMF_Info, and this is no longer needed. | Code that uses this entry point of ESMF_AttributeGet() must be changed to use the corresponding ESMF_Info method. |
| ESMF_AttributeGet | N/A | N/A | No | 39.11.12 | N/A | The ESMF_Attribute class was replaced with ESMF_Info, and this is no longer needed. | Code that uses this entry point of ESMF_AttributeGet() must be changed to use the corresponding ESMF_Info method. |

| API Changes | | | | | | | |
|--------------------------|-----------------|-----------------|-----------------------------------|-----------------|-----------------|---|---|
| Method name | Old value (800) | New value (810) | Marked backward compatible in 800 | Interface (800) | Interface (810) | Rationale for change | Impact |
| ESMF_AttributeGet | N/A | N/A | No | 39.11.14 | N/A | The ESMF_Attribute class was replaced with ESMF_Info, and this is no longer needed. | Code that uses this entry point of ESMF_AttributeGet() must be changed to use the corresponding ESMF_Info method. |
| ESMF_AttributeGet | N/A | N/A | No | 39.11.19 | N/A | The ESMF_Attribute class was replaced with ESMF_Info, and this is no longer needed. | Code that uses this entry point of ESMF_AttributeGet() must be changed to use the corresponding ESMF_Info method. |
| ESMF_AttributeGet | N/A | N/A | No | 39.11.21 | N/A | The ESMF_Attribute class was replaced with ESMF_Info, and this is no longer needed. | Code that uses this entry point of ESMF_AttributeGet() must be changed to use the corresponding ESMF_Info method. |
| ESMF_AttributeGet | N/A | N/A | No | 39.11.22 | N/A | The ESMF_Attribute class was replaced with ESMF_Info, and this is no longer needed. | Code that uses this entry point of ESMF_AttributeGet() must be changed to use the corresponding ESMF_Info method. |
| ESMF_AttributeLink | N/A | N/A | No | 39.11.24 | N/A | The ESMF_Attribute class was replaced with ESMF_Info, and this is no longer needed. | Attribute linking is no longer supported with the new Info interface. Code that uses this feature will need to be modified. |
| ESMF_AttributeLink | N/A | N/A | No | 39.11.25 | N/A | The ESMF_Attribute class was replaced with ESMF_Info, and this is no longer needed. | Attribute linking is no longer supported with the new Info interface. Code that uses this feature will need to be modified. |
| ESMF_AttributeLink | N/A | N/A | No | 39.11.26 | N/A | The ESMF_Attribute class was replaced with ESMF_Info, and this is no longer needed. | Attribute linking is no longer supported with the new Info interface. Code that uses this feature will need to be modified. |
| ESMF_AttributeLink | N/A | N/A | No | 39.11.27 | N/A | The ESMF_Attribute class was replaced with ESMF_Info, and this is no longer needed. | Attribute linking is no longer supported with the new Info interface. Code that uses this feature will need to be modified. |
| ESMF_AttributeLink | N/A | N/A | No | 39.11.28 | N/A | The ESMF_Attribute class was replaced with ESMF_Info, and this is no longer needed. | Attribute linking is no longer supported with the new Info interface. Code that uses this feature will need to be modified. |
| ESMF_AttributeLinkRemove | N/A | N/A | No | 39.11.29 | N/A | The ESMF_Attribute class was replaced with ESMF_Info, and this is no longer needed. | Attribute linking is no longer supported with the new Info interface. Code that uses this feature will need to be modified. |
| ESMF_AttributeLinkRemove | N/A | N/A | No | 39.11.30 | N/A | The ESMF_Attribute class was replaced with ESMF_Info, and this is no longer needed. | Attribute linking is no longer supported with the new Info interface. Code that uses this feature will need to be modified. |
| ESMF_AttributeLinkRemove | N/A | N/A | No | 39.11.31 | N/A | The ESMF_Attribute class was replaced with ESMF_Info, and this is no longer needed. | Attribute linking is no longer supported with the new Info interface. Code that uses this feature will need to be modified. |
| ESMF_AttributeLinkRemove | N/A | N/A | No | 39.11.32 | N/A | The ESMF_Attribute class was replaced with ESMF_Info, and this is no longer needed. | Attribute linking is no longer supported with the new Info interface. Code that uses this feature will need to be modified. |
| ESMF_AttributeLinkRemove | N/A | N/A | No | 39.11.33 | N/A | The ESMF_Attribute class was replaced with ESMF_Info, and this is no longer needed. | Attribute linking is no longer supported with the new Info interface. Code that uses this feature will need to be modified. |
| ESMF_AttributeRead | N/A | N/A | No | 39.11.34 | N/A | The ESMF_Attribute class was replaced with ESMF_Info, and this is no longer needed. | Attribute Read/Write is no longer supported. Code that uses this feature will need to be modified to use the new Info Read/Write JSON features. |

| API Changes | | | | | | | |
|---------------------|-----------------|-----------------|-----------------------------------|-----------------|-----------------|---|--|
| Method name | Old value (800) | New value (810) | Marked backward compatible in 800 | Interface (800) | Interface (810) | Rationale for change | Impact |
| ESMF_AttributeSet | N/A | N/A | No | 39.11.38 | N/A | The ESMF_Attribute class was replaced with ESMF_Info, and this is no longer needed. | Code that uses this entry point of ESMF_AttributeSet() must be changed to use the corresponding ESMF_Info method. |
| ESMF_AttributeSet | N/A | N/A | No | 39.11.41 | N/A | The ESMF_Attribute class was replaced with ESMF_Info, and this is no longer needed. | Code that uses this entry point of ESMF_AttributeSet() must be changed to use the corresponding ESMF_Info method. |
| ESMF_AttributeWrite | N/A | N/A | No | 39.11.44 | N/A | The ESMF_Attribute class was replaced with ESMF_Info, and this is no longer needed. | Attribute Read/Write is no longer supported. Code that uses the feature will need to be modified to use the new Info Read/Write JSON features. |