

Access	T_{NA}	$\xrightarrow{f_A}$	$T_{NA \cup N^{Msg}}$
Struct read	CMemberRead(t_{rec}, t_{id})	$\xrightarrow{f_C}$	Read(t_{rec}, t_{id})
Struct write	CMemberWrite(t_{rec}, t_{id}, t_{val})	$\xrightarrow{f_C}$	Write(t_{rec}, t_{id}, t_{val})
Array read	CElementRead(t_{arr}, t_{idx})	$\xrightarrow{f_C}$	Read(t_{arr}, t_{idx})
Array write	CElementWrite($t_{arr}, t_{idx}, t_{val}$)	$\xrightarrow{f_C}$	Write($t_{arr}, t_{idx}, t_{val}$)
Is null	CIsNullPointer(t_{rec})	$\xrightarrow{f_C}$	IsNull(t_{rec})
Function call	CCall(t_{func}, \dots)	$\xrightarrow{f_C}$	Execute(t_{func}, \dots)
Property read	JSReadProperty(t_{rec}, t_{id})	$\xrightarrow{f_{JS}}$	Read(t_{rec}, t_{id})
Property write	JSWriteProperty(t_{rec}, t_{id}, t_{val})	$\xrightarrow{f_{JS}}$	Write(t_{rec}, t_{id}, t_{val})
Is null	JSIsNil(t_{rec})	$\xrightarrow{f_{JS}}$	IsNull(t_{rec})
Call	JSCall($t_{func}, t_{rec} \dots$)	$\xrightarrow{f_{JS}}$	Execute($t_{func}, t_{rec} \dots$)
Method call	RbDispatch(RbResolve(t_{rec}, t_{id}), $t_{rec} \dots$)	$\xrightarrow{f_{Ruby}}$	Execute(Read(t_{rec}, t_{id}), $t_{rec} \dots$)
Is null	RbIsNil(t_{rec})	$\xrightarrow{f_{Ruby}}$	IsNull(t_{rec})
Getter call	RbDispatch(RbResolve($t_{rec}, t_{getterId}$), $t_{rec} \dots$)	$\xrightarrow{f_{Ruby}}$	Read(t_{rec}, t_{id})
Setter call	RbDispatch(RbResolve($t_{rec}, t_{setterId}$), $t_{rec} \dots$)	$\xrightarrow{f_{Ruby}}$	Write(t_{rec}, t_{id}, t_{val})
Receiver t_{rec}	$T_{NA \cup N^{Msg}}$	$\xrightarrow{g_B}$	$T_{NA \cup N^B}$
Ptr to Struct	Read(t_{rec}, t_{id})	$\xrightarrow{g_C}$	CMemberRead(t_{rec}, t_{id})
Ptr to Struct	Write(t_{rec}, t_{id}, t_{val})	$\xrightarrow{g_C}$	CMemberWrite(t_{rec}, t_{id}, t_{val})
Ptr to Array	Read(t_{rec}, t_{idx})	$\xrightarrow{g_C}$	CElementRead(t_{rec}, t_{idx})
Ptr to Array	Write($t_{rec}, t_{idx}, t_{val}$)	$\xrightarrow{g_C}$	CElementWrite($t_{rec}, t_{idx}, t_{val}$)
Any ptr	IsNull(t_{rec})	$\xrightarrow{g_C}$	CIsNullPointer(t_{rec})
Function ptr	Execute(t_{rec}, \dots)	$\xrightarrow{g_C}$	CCall(t_{rec}, \dots)
Object	Read(t_{rec}, t_{id})	$\xrightarrow{g_{JS}}$	JSReadProperty(t_{rec}, t_{id})
Object	Write(t_{rec}, t_{id}, t_{val})	$\xrightarrow{g_{JS}}$	JSWriteProperty(t_{rec}, t_{id}, t_{val})
Object	IsNull(t_{rec})	$\xrightarrow{g_{JS}}$	JSIsNil(t_{rec})
Object	Unbox(t_{rec})	$\xrightarrow{g_{JS}}$	JSNumberToFloat64(t_{rec})
Function	Execute($t_{rec}, t_{rec} \dots$)	$\xrightarrow{g_{JS}}$	JSCall($t_{rec}, t_{rec} \dots$)
Object	Execute(Read(t_{rec}, t_{id}), $t_{rec} \dots$)	$\xrightarrow{g_{Ruby}}$	RbDispatch(RbResolve(t_{rec}, t_{id}), $t_{rec} \dots$)
Object	Read(t_{rec}, t_{id})	$\xrightarrow{g_{Ruby}}$	RbDispatch(RbResolve($t_{rec}, t_{getterId}$), t_{rec})
Object	Write(t_{rec}, t_{id}, t_{val})	$\xrightarrow{g_{Ruby}}$	RbDispatch(RbResolve($t_{rec}, t_{setterId}$), t_{rec}, t_{val})
Object	IsNull(t_{rec})	$\xrightarrow{g_{Ruby}}$	RbIsNil(t_{rec})
Array or Hash	Execute(Read(t_{rec}, t_{id}), $t_{rec} \dots$)	$\xrightarrow{g_{Ruby}}$	RbDispatch(RbResolve(t_{rec}, t_{id}), $t_{rec} \dots$)
Array or Hash	Read(t_{rec}, t_{id})	$\xrightarrow{g_{Ruby}}$	RbDispatch(RbResolve($t_{rec}, t_{[]} $), t_{rec})
Array or Hash	Write(t_{rec}, t_{id}, t_{val})	$\xrightarrow{g_{Ruby}}$	RbDispatch(RbResolve($t_{rec}, t_{[]=}$), t_{rec}, t_{val})
Array or Hash	IsNull(t_{rec})	$\xrightarrow{g_{Ruby}}$	RbIsNil(t_{rec})
Class	Read(t_{rec}, t_{id})	$\xrightarrow{g_{Ruby}}$	RbReadClassVar(t_{rec}, t_{id})
Class	Write(t_{rec}, t_{id}, t_{val})	$\xrightarrow{g_{Ruby}}$	RbWriteClassVar(t_{rec}, t_{id}, t_{val})
Class	IsNull(t_{rec})	$\xrightarrow{g_{Ruby}}$	RbIsNil(t_{rec})
FixNum	Unbox(t_{rec})	$\xrightarrow{g_{Ruby}}$	RbFixNumToInt64(t_{rec})
Float	Unbox(t_{rec})	$\xrightarrow{g_{Ruby}}$	RbFloatToFloat64(t_{rec})
Function	Execute(t_{rec}, \dots)	$\xrightarrow{g_{Ruby}}$	RbDispatch(t_{rec}, \dots)