

Command: Steel Design Commands

Command

Functions

```
afx_msg void OSCommandsUI::CreateSteelDesignCommand (const VARIANT FAR &NDesignCode, const VARIANT FAR &NCommandNo, const VARIANT FAR  
&IntValues, const VARIANT FAR &FloatValues, const VARIANT FAR &StringValues, const VARIANT FAR &NAssignList)  
Creates steel design command.
```

Detailed Description

These functions are related to Steel Design Commands.

Function Documentation

◆ CreateSteelDesignCommand()

```
void OSCommandsUI::CreateSteelDesignCommand ( const VARIANT FAR & NDesignCode,
                                              const VARIANT FAR & NCommandNo,
                                              const VARIANT FAR & IntValues,
                                              const VARIANT FAR & FloatValues,
                                              const VARIANT FAR & StringValues,
                                              const VARIANT FAR & NAssignList )
```

Creates steel design command.

Parameters

[in] iDesignCode Index of Design Code.

iDesignCode	Description
1001	AASHTO ASD
1002	AISC ASD
1003	AS 4100-1998
1004	BS 5950-1:2000
1005	BS 5400:Part 3:1982
1006	CAN/CSA-S16-01
1007	French CM66 1977
1008	DIN 18 800 Part 1
1009	IS 800 1984, ASD
1010	Japan AIJ 2002
1011	AISC LRFD
1012	Norway NS 3472 2001
1014	Norway NPD 1993
1016	API 2A-WSD
1020	ASCE 10-97
1025	Russia SNI P 2.23-81* 1990
1027	Canada S136-94
1028	IS 801 1975
1029	IS 802 1995
1030	Mexico NTC 1987
1032	IS 800 2007, LSD
1052	IS 800 2007, WSD
1033	BS 5950-5:1998
1034	South Africa SANS 10162-1:2011
1044	AASHTO LRFD
1045	ANSI/AISC 360-05
1046	ASME NF 3000 1989
1047	ASME NF 3000 1998
1048	ASME NF 3000 1974
1049	ASME NF 3000 1977
1050	Norway NORSO K N-004
1051	ASME NF 3000 2004
1053	ASME NF 3000 2001
1060	ASCE 52
1061	ANSI/AISC 360-10
1062	Canadian S16_09
1063	Russia SP 16.13330.2011
1064	South Africa SANS10162-1:1993
1065	Canadian S16_14
1066	NZS3404_1997
1067	ANSI/AISC 360-16

1068	Aisi_S100_2016
1069	Canadian S16_19
1102	AISC CASTELLATED
1202	AISC N690 1994
1204	AISC N690 1984
1210	Japan AIJ 2005
1220	BS EN 1993-1-1:2005
1221	Russia SP 16.13330.2017

[in] iDesignCommandNo Index of Design Command.

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Design Parameter	iDesignCommandNo	Design Parameter	iDesignCommandNo	Design Parameter	iDesignCommandNo	Design Parameter
AISC 360-05, 360-10, and 360-16		AISC LRFD (2nd and 3rd Ed.)		AASHTO (ASD)		AASHTO (LRFD)
CODE	9010	CODE	9010	CODE	9010	CODE
ALH	9674	AXIS	9892	BEAM	9380	BEAM
BEAM	9380	BEAM	9380	CB	9280	DMAX
BRC	9955	CAN	9883	CMY	9310	DMIN
CAN	9883	CB	9280	CMZ	9320	DFF
CB	9280	DFF	9210	DFF	9210	DJ1
CSPACING	9103	DJ1	9390	DJ1	9390	DJ2
DFF	9210	DJ2	9400	DJ2	9400	GRADE
DJ1	9390	DMAX	9160	DMAX	9160	KY
DJ2	9400	DMIN	9170	DMIN	9170	KZ
DMAX	9160	FLX	9781	FYLD	9100	LY
DMIN	9170	FYLD	9100	KY	9240	LZ
DUCT	9964	FU	9705	KZ	9250	MAIN
E5P	9133	KX	9235	LY	9130	NSF
FLX	9781	KY	9240	LZ	9140	TRACK
FRM	9954	KZ	9250	MAIN	9330	UNB
FU	9705	LX	9125	NSF	9260	UNT
FYLD	9100	LY	9130	PROFILE	9260	
IMM	9877	LZ	9140	PUNCH	9340	
KX	9235	MAIN	9330	RATIO	9360	
INT	9957	NSF	9260	SSY	9290	
KY	9240	PROFILE	9520	SSZ	9300	
KZ	9250	RATIO	9360	STIFF	9200	
LBRC	9968	STIFF	9200	TRACK	9350	
LEG	9500	STP	9894	UNF	9270	
LX	9125	TMAIN	9335	UNL	9150	
LY	9130	TRACK	9350	WSTR	9110	
LZ	9140	UNB	9660			
MAIN	9330	UNT	9650			
METHOD	9923					
MTYP	9956					
NBRC	9972					
NSF	9260					
PROFILE	9520					
RATIO	9360					
SEISMIC	9953					
SGR	9460					

SLF	9922							
SNUG	9102							
SOE	9975							
SRT	9131							
STB	9973							
STT	9974							
STIFF	9200							
STP	9894							
TBRC	9969							
TFA	9976							
TSL	9132							
TMAIN	9335							
TND	9959							
TORSION	9670							
TRACK	9350							
UNB	9660							
UNL	9150							
UNR	9970							
UNT	9650							
WTYPE	9958							

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Design Parameter	iDesignCommandNo	Design Parameter	iDesignCommandNo	Design Parameter	iDesignCommandNo	Design Parameter
AISI 2016		API 2A-WSD		ASCE 10-97		ASME NF 89/08/01/04
CODE	9010	CODE	9010	CODE	9010	CODE
AXIS	9892	BEAM	9380	BEAM	9380	CAN
BEAM	9380	CB	9280	CMY	9310	CB
CAN	9883	CMY	9310	CMZ	9320	CMY
DFF	9210	CMZ	9320	DMAX	9160	CMZ
DJ1	9390	DMAX	9160	DBL	9863	CT
DJ2	9400	DMIN	9170	DMIN	9170	DFF
FLX	9781	FSJ	9503	ELA	9861	DJ1
FU	9705	FYLD	9100	ELB	9862	DJ2
FYLD	9100	KY	9240	FVB	9865	DMAX
KT	9805	KZ	9250	FYB	9864	DMIN
KY	9240	LY	9130	FYLD	9100	FYLD
KZ	9250	LZ	9140	KT	9805	FU
LT	9806	MAIN	9330	KY	9240	KBK
LY	9130	NSF	9260	KZ	9250	KS
LZ	9140	RATIO	9360	LEG	9500	KV
METHOD	9923	SSY	9290	LT	9806	KY
NSF	9260	SSZ	9300	LY	9130	KZ
RATIO	9360	TRACK	9350	LZ	9140	LY
SSY	9290	UNF	9270	MAIN	9867	LZ
SSZ	9300	UNL	9150	NHL	9866	MAIN
STIFF	9200	WELD	9370	NSF	9260	NSF
TRACK	9350	WMIN	9180	RATIO	9360	PROFILE
TSA	9782	WSTR	9110	SSY	9290	RATIO
UNB	9660			SSZ	9300	SRL
				TRACK	9350	STIFF
				UNB	9660	STYPE

					UNT	9650		TMAIN
								TRACK
								UNB
								UNT

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Design Parameter	iDesignCommandNo	Design Parameter	iDesignCommandNo	Design Parameter	iDesignCommandNo	Design Parameter
ANSI/AISC N690 1994		ANSI/AISC N690 1984		AISC CASTELLATED		ASCE 52
CODE	9010	CODE	9010	CODE	9010	CODE
BEAM	9380	CAN	9883	CB	9280	BEAM
CAN	9883	CB	9280	CMZ	9320	DBL
CB	9280	CMY	9310	EOPEN	9885	DMAX
CMY	9310	CMZ	9320	FYLD	9100	DMIN
CMZ	9320	CT	9924	RATIO	9360	ELA
COMPOSITE	9710	DFF	9210	SOPEN	9884	ELB
CONDIA	9715	DJ1	9390	TRACK	9350	FVB
CONHEIGHT	9720	DJ2	9400	UNL	9151	FYB
CYCLES	9725	DMAX	9160			FYLD
DFF	9210	DMIN	9170			KT
DJ1	9390	FU	9705			KY
DJ2	9400	FYLD	9100			KZ
DLR2	9735	KY	9240			LEG
DLRATIO	9730	KZ	9250			LT
DMAX	9160	LY	9130			LY
DMIN	9170	LZ	9140			LZ
EFFWIDTH	9740	MAIN	9330			MAIN
FYLD	9100	NSF	9260			NHL
FPC	9745	PROFILE	9520			NSF
FSS	9882	RATIO	9360			RATIO
FU	9705	SFC	9942			TRACK
FYLD	9100	SFT	9943			
KX	9235	SMY	9945			
KY	9240	SMZ	9944			
KZ	9250	STIFF	9200			
LX	9125	STYPE	9101			
LY	9130	TMAIN	9335			
LZ	9140	TRACK	9350			
MAIN	9330	UNB	9660			
NSF	9260	UNT	9650			
OVR	9880					
PLTHICK	9755					
PLTWIDTH	9760					
PROFILE	9520					
RATIO	9360					
RIBHEIGHT	9765					
RIBWIDTH	9770					
SFC	9942					
SFT	9943					
SHE	9893					
SHADING	9775					
SLADTHICK	9780					

SMY	9945							
SMZ	9944							
SSY	9290							
SSZ	9300							
STIFF	9200							
STYPE	9101							
TAPER	9868							
TMAIN	9335							
TORSION	9670							
TRACK	9350							
UNB	9660							
UNT	9650							
WELD	9370							
WMAX	9881							
WMIN	9180							
WSTR	9110							

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Design Parameter	iDesignCommandNo	Design Parameter	iDesignCommandNo	Design Parameter	iDesignCommandNo	Design Parameter
BS 5950		BS 5400		Canada S16-01		Canada S16-09/14/19
CODE	9010	CODE	9010	CODE	9010	CODE
AD	9902	ESTIFF	9690	BEAM	9380	BEAM
BEAM	9381	KY	9240	CB	9280	CAN
CAN	9883	KZ	9250	CMY	9790	CB
CB	9281	LY	9130	CMZ	9795	CMY
DFF	9210	LZ	9140	DFF	9210	CMZ
DJ1	9390	MAIN	9332	DJ1	9390	CPSACING
DJ2	9400	NSF	9260	DJ2	9400	DFF
DMAX	9160	PY	9120	DMAX	9160	DJ1
DMIN	9170	RATIO	9360	DMIN	9170	DJ2
ESTIFF	9690	SBLT	9472	FU	9705	DMAX
KY	9240	SGR	9464	FYLD	9100	DMIN
KZ	9250	TRACK	9352	KT	9805	FLX
LEG	9501	UNL	9150	KY	9240	FU
LVV	9190	WET	9510	KZ	9250	FYLD
LY	9130			LT	9806	IMM
LZ	9140			LY	9130	KT
MLT	9820			LZ	9140	KY
MX	9840			MAIN	9338	KZ
MY	9850			NSF	9260	LAT
MYX	9830			RATIO	9360	LEG
NSF	9260			SHEAR	9893	LHT
PNL	9700			SSY	9290	LT
PY	9120			SSZ	9300	LY
MAIN	9331			TRACK	9350	LZ
RATIO	9360			UNB	9660	MAIN
SAME	9870			UNT	9650	NCR
SBLT	9472					NSF
SWAY	9860					PROFILE
SCP	^464					RATIO
ID	9530					SLF

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TRACK	9357								SNUG
UNF	9270								SSY
UNL	9150								SSZ
WELD	9371								STIFF
									STP
									TMAIN
									TRACK
									UNB
									UNT

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Design Parameter	iDesignCommandNo	Design Parameter	iDesignCommandNo	Design Parameter	iDesignCommandNo	Design Parameter
Canada S136-94		French		German		Indian 800 2007 LSD
CODE	9010	CODE	9010	CODE	9010	CODE
BEAM	9380	BEAM	9385	BEAM	9380	ALPHA
CMZ	9790	C1	9550	CB	9280	ANG
C MY	9795	C2	9560	CMM	9483	ATG
CWY	9783	DFF	9210	D MAX	9160	ATN
D MAX	9160	DJ1	9390	D MIN	9170	AVG
D MIN	9170	DJ2	9400	KY	9240	AVN
FLX	9781	D MAX	9160	KZ	9250	BEAM
FU	9705	D MIN	9170	LY	9130	CAN
FYLD	9100	FYLD	9100	LZ	9140	CMX
KT	9805	KY	9240	PY	9120	C MY
KY	9240	KZ	9250	NSF	9260	CMZ
KZ	9250	LY	9130	RATIO	9360	D FF
LT	9806	LZ	9140	SAME	9870	DJ1
LY	9130	NSF	9260	SBLT	9472	DJ2
LZ	9140	RATIO	9360	SGR	9462	D MAX
NSF	9260	SAME	9870	TRACK	9354	D MIN
STIFF	9200	TRACK	9355	UNF	9270	FU
TRACK	9350	UNF	9270	UNL	9150	F XTY
TSA	9782	UNL	9150			FYLD
						IMM
						KX
						KY
						KZ
						LAT
						LST
						LX
						LY
						LZ
						MAIN
						NBL
						NSF
						PROFILE
						PSI
						RATIO
						SEISMIC
						STP
						SSY

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								SSZ
								TMAIN
								TRACK
								TSP
								TST

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Design Parameter	iDesignCommandNo	Design Parameter	iDesignCommandNo	Design Parameter	iDesignCommandNo	Design Parameter
Indian 800 1984		Indian 801 1975		Indian 802 1995		Japanese AIJ 2002
CODE	9010	CODE	9010	CODE	9010	CODE
BEAM	9380	BEAM	9380	CNSF	9871	BEAM
CMY	9310	CB	9280	DANGLE	9872	CAN
CMZ	9320	CMY	9310	DBL	9863	CB
DFF	9210	CMZ	9320	DMAX	9160	DFF
DJ1	9390	CWY	9783	DMIN	9170	DJ1
DJ2	9400	FLX	9781	ELA	9861	DJ2
DMAX	9160	FU	9705	FVB	9865	DMAX
DMIN	9170	FYLD	9100	FYB	9864	DMIN
FYLD	9100	KX	9235	FYLD	9100	FYLD
KY	9240	KY	9240	GUSSET	9873	KY
KZ	9250	KZ	9250	KY	9240	KZ
LY	9130	LX	9125	KZ	9250	LY
LZ	9140	LY	9130	LEG	9500	LZ
MAIN	9334	LZ	9140	LY	9130	MAIN
NSF	9260	NSF	9260	LZ	9140	MBG
PROFILE	9520	RATIO	9360	MAIN	9334	MISES
RATIO	9360	TRACK	9350	NSF	9260	NSF
SSY	9290	TSA	9782	NHL	9866	PLB
SSZ	9300	UNL	9270	TRACK	9350	RATIO
TMAIN	9335					SLF
TRACK	9350					TMAIN
UNF	9270					TRACK
UNL	9150					UNF
						UNL

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Design Parameter	iDesignCommandNo	Design Parameter	iDesignCommandNo	Design Parameter	iDesignCommandNo	Design Parameter
Japanese AIJ 2002		Mexian		New Zealand		Norwegian NS 3472/NF 1993
CODE	9010	CODE	9010	CODE	9010	CODE
BEAM	9380	BEAM	9380	ALM	9803	BEAM
CAN	9883	CB	9280	BEAM	9380	BY
CB	9280	CMB	9878	DFF	9210	BZ
DFF	9210	DFF	9210	DJ1	9390	CB
DJ1	9390	DJ1	9390	DJ2	9400	CMY
DJ2	9400	DJ2	9400	DMAX	9160	CMZ
DMAX	9160	DMAX	9160	DMIN	9170	CY
DMIN	9170	DMIN	9170	DUCT	9964	CZ
FYLD	9100	DSD	9879	FU	9705	DMAX
KY	9240	FU	9705	FYLD	9100	DMIN
		FYLD	9100	GLD	9965	FYLD

LY	9130	IMM	9877	IST	9800	MF
LZ	9140	INO	9876	KT	9805	RATIO
MAIN	9336	IRR	9875	KY	9240	SSY
MBG	9823	KX	9235	KZ	9250	SSZ
MISES	9819	KY	9240	LHT	9938	TRACK
NSF	9260	KZ	9250	LX	9125	UNL
RATIO	9360	LDR	9874	LY	9130	
SLF	9922	LX	9125	LZ	9140	
TMAIN	9335	LY	9130	MAIN	9330	
TRACK	9358	LZ	9140	NSC	9802	
UNF	9270	NSF	9260	NSF	9260	
UNL	9150	RATIO	9360	PBRACE	9939	
YNG	9824	STIFF	9200	PBCRES	9963	
		TRACK	9350	RATIO	9360	
		UNB	9660	SGR	9460	
		UNT	9650	SKL	9808	
				SKR	9809	
				SKT	9807	
				TMAIN	9335	
				TRACK	9350	
				TSP	9932	
				UNB	9660	
				UNT	9650	

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Design Parameter	iDesignCommandNo	Design Parameter	iDesignCommandNo	Design Parameter	iDesignCommandNo	Design Parameter
Norwegian NORSOK N-004		Russian SNip 81		South African 1993		South African 2001
CODE	9010	CODE	9010	CODE	9010	CODE
BEAM	9380	BEAM	9380	BEAM	9380	BEAM
CMY	9310	CB	9281	CB	9280	CB
CMZ	9320	CMM	9494	CMY	9310	CMY
DFF	9210	CMN	9494	CMZ	9320	CMZ
DJ1	9390	DFF	9210	DFF	9210	DFF
DJ2	9400	DMAX	9160	DJ1	9390	DJ1
DMAX	9160	DMIN	9170	DJ2	9400	DJ2
DMIN	9170	GAMC1	9809	DMAX	9160	DMAX
FYLD	9100	GAMC2	9810	DMIN	9170	DMIN
FU	9705	GMF	9977	FU	9705	FU
HYD	9940	KY	9240	FYLD	9100	FYLD
KY	9240	KZ	9250	KT	9805	KT
KZ	9250	LEG	9502	KY	9240	KY
LX	9125	LY	9130	KZ	9250	KZ
LY	9130	LZ	9140	LT	9806	LT
LZ	9140	MAIN	9333	LY	9130	LY
MAIN	9330	NSF	9260	LZ	9140	LZ
PSD	9941	PY	9121	MAIN	9330	MAIN
RATIO	9360	RATIO	9360	NSF	9260	NSF
SGR	9466	SBLT	9471	RATIO	9360	RATIO
TMAIN	9335	SGR	9463	SSY	9290	SSY
TRACK	9351	TB	9952	SSZ	9300	SSZ
		TRACK	9356	TRACK	9350	STIFF

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Design Parameter	iDesignCommandNo	Design Parameter	iDesignCommandNo	Design Parameter	iDesignCommandNo	Design Parameter
EC3		Australian		BS5950 Part 5		ASME NF 1974/1977
CODE	9010	CODE	9010	CODE	9010	CODE
ALH	9674	ALB	9804	BEAM	9380	CAN
ALPHA	9926	ALM	9803	CMY	9310	CB
BEAM	9382	BEAM	9380	CMZ	9320	CMY
BETA	9382	DFF	9210	CWY	9781	CMZ
C1	9550	DJ1	9390	FLX	9781	CT
C2	9560	DJ2	9400	FU	9705	DFF
C3	9565	DMAX	9160	FYLD	9100	DJ1
CAN	9883	DMIN	9170	KX	9235	DJ2
CMM	9482	FU	9705	KY	9240	DMAX
CMN	9492	FYLD	9100	KZ	9250	DMIN
CMT	9671	IST	9800	LX	9125	FYLD
DFF	9210	KT	9805	LY	9130	FU
DJ1	9390	KY	9240	LZ	9140	KBK
DJ2	9400	KZ	9250	MAIN	9330	KS
DMAX	9160	LHT	9938	NSF	9260	KV
DMIN	9170	LX	9125	DMAX	9160	KY
EFT	9673	LY	9130	RATIO	9360	KZ
ELB	9697	LZ	9140	TRACK	9350	LY
ESTIFF	9690	MAIN	9330			LZ
FAB	9508	NSC	9802			MAIN
FU	9705	NSF	9260			NSF
GM0	9504	PBRACE	9939			PROFILE
GM1	9505	PHI	9801			RATIO
GM2	9506	RATIO	9360			SRL
GST	9676	SGR	9466			STIFF
HGT	9720	SKL	9808			TMAIN
KC	9696	SKR	9809			TRACK
KY	9240	SKT	9807			UNB
KZ	9250	TMAIN	9335			UNT
LEG	9501	TRACK	9350			
LVV	9190	TSP	9932			
LY	9130	UNB	9660			
LZ	9140	UNT	9650			
MTH	9677					
MU	9695					
NA	9465					
NSF	9260					
PLG	9930					
PY	9120					
RATIO	9360					
SBLT	9472					
SCP	^461					
STIFF	9202					

TOM	9672							
TORSION	9688							
TRACK	9353							
UNF	9270							
UNL	9150							
ZG	9507							

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Design Parameter	iDesignCommandNo	Design Parameter	iDesignCommandNo
Russian SP 2011		Russian SP 2017	
CODE	9010	CODE	9010
BEAM	9380	BMT	9951
BMT	9951	CB	9281
CB	9281	CMM	9494
CMM	9494	CMN	9494
CMN	9494	DFF	9210
DFF	9210	DJ1	9390
DJ1	9390	DJ2	9400
DJ2	9400	DMAX	9160
DMAX	9160	DMIN	9170
DMIN	9170	ENSGR	9818
ENMAIN	9817	FU	9705
ENSGR	9818	GAMC1	9809
GAMC1	9809	GAMC2	9810
GAMC2	9810	GAMM	9978
GAMM	9815	GMF	9977
GMF	9977	KY	9240
KY	9240	KZ	9250
KZ	9250	LEG	9502
LEG	9502	LY	9130
LY	9130	LZ	9140
LZ	9140	NSF	9260
MAIN	9333	PY	9121
NSF	9260	SBLT	9471
PY	9121	STP	9894
RATIO	9360	TB	9952
SBLT	9471	TRACK	9356
SGR	9463		
TB	9952		
TRACK	9356		
UNL	9151		

Parameters

- [in] **IntValues** Integer Parameter(s) VARIANT array.
- [in] **FloatValues** Float Parameter(s) VARIANT array.
- [in] **StringValues** String Parameter(s) VARIANT array.
- [in] **NAssignList** Reference ID(s) list of Object(s) to be assigned.

C++ Syntax

```
// Add DESIGN STEEL command (scSteelParameterKz = 9250) using code ANSI/AISC 360-16 (ANSI/AISC 360-16 = 1067).
OSCommandsUI::CreateSteelDesignCommand(1067, 9250, IntValues, FloatValues, StringValues, NAssignList);
```