

## IT WORKERS JOB DESCRIPTION LIST

- Senior Animation Effects Editor (NOC 9990.1)
- Embedded Systems Software Designer (NOC 9990.2)
- MIS Software Designer (NOC 9990.3)
- Multimedia Software Developer (NOC 9990.4)
- Software Developer — Services (NOC 9990.5)
- Software Products Developer (NOC 9990.6)
- Telecommunications Software Designer (NOC 9990.7)

### **1. Senior Animation Effects Editor (NOC 9990.1)**

**Duties:** Compositing and editing animation and digital effects (FX) for film and television.

**Minimum Requirements:**

1. **Education:** Bachelors degree or equivalent technical school certification in film editing or computer graphics, or equivalent work experience. (Experience must be in animation, film or digital effects — see item number 3 and following skills/technologies list.)
2. **Language:** Working proficiency in English or French (written and oral.)
3. **Experience:**
  - Two years experience with non-linear compositing and effects background with traditional on/off line an asset.
  - Knowledge required and to be demonstrated in work experience as a senior editor in production.
  - At least two years experience required with any or a combination of platforms and software and hardware in the following chart.

Applicant’s experience in this field must be verified using the following table. The applicant must possess either training in, or experience working with, at least one product or technology listed under each of the two headings.

<b>PRODUCT</b>	<b>HARDWARE</b>
AVID MCXPRESS	SGI/MAC
AVID VIDEOSHOP	MAC
STATA VIDEOSHOP	MAC
FLINT	SGI
FLAME	SGI
HARRY/HENRY/HAL	SGI
EDIT BOX	SGI
ILLUSION	SGI
MEDIA 100	MAC
PREMIER	MAC/PC/ALPHA
AFTER EFFECTS	MAC/PC/ALPHA
VIDEO ACTION PRO	MAC/PC

FINAL CUT	PC
SPEED RAZOR PRO	ALPHA/PC
D-VISION	SGI
COMPOSER	MAC/ALPHA
ANIMATION MASTER	MAC/ALPHA

**Salary:** \$65,000-\$100,000 for 3-5 years experience. (If artistic capabilities and relevant experience warrant, salary may exceed \$100,000.)

## 2. Embedded Systems Software Designer (NOC 9990.2)

**Duties:** Designing, implementing and documenting real-time embedded software for a variety of applications.

### Minimum Requirements:

1. **Education:** Bachelors degree or a 2-year Post-Secondary diploma or certification with a computing element.
2. **Language:** Working proficiency in English or French (written and oral.)
3. **Experience:** Two years experience designing and implementing real-time software in a high- or low-level language. See table below.

Applicant's experience in this field must be verified using the following table. The applicant must possess either training in, or experience working with, at least **one product or technology under each heading**.

TECHNOLOGY	OPERATING SYSTEMS	LANGUAGES	PROCESSORS	METHODOLOGIES	DEVELOPMENT ENVIRONMENT
VME	UNIX	C	INTEL FAMILY	BOOCH	EMULATORS/DEBUGGERS
PCI	VXWORKS	C++	MOTOROLA	RUMBAUCH	PROCESSOR ARCHITECTURES
MIL-STE-1553	PSOS	ADA	POWER PC	BURH 90	OBJECT ORIENTED
DEVICE DRIVERS	DOS	PASCAL	SHARC DSP	OMT	RATIONAL
A/D,D/A	WIN 95	SMALLTALK	TI DSP FAMILY	UML	UNIX WORKSTATIONS
FILTERS	WINDOWS NT	JAVA	DEC ALPHA		PCS
DATAFLOW CONTROLS	WINDOWS 3.X	VISUAL BASIC	1860 DSP		CONCURRENT PROCESSING
	OS/2	DELPHI			MULTITASKING
		TCL			FIRMWARE

**Salary:** \$45,000-\$95,000, depending on experience.

### 3. MIS Software Designer (NOC 9990.3)

**Duties:** Designing and implementing software for Management Information Systems.

**Minimum Requirements:**

1. **Education:** Bachelors degree or a 2-year Post-Secondary diploma or certification with a computing element.
2. **Language:** Working proficiency in English or French (written and oral.)
3. **Experience:** (Please refer to table below.)
  - Two years experience with application development, programming, designing, and analyzing real-time OLTP (on-line transaction processing), RDBMS (relational database management systems), and large mainframe systems.
  - Two years experience with large mainframe systems including experience with Year 2000 related activities such as impact analysis, code conversions, testing, compliance and auditing.

Applicant’s experience in this field must be verified using the following table. The applicant must possess experience working with at least **one product or technology under each heading**.

<b>DATA STRUCTURE</b>	<b>OPERATING/ SYSTEM PLATFORM</b>	<b>HIGH-LEVEL LANGUAGE</b>
VSAM	MVS	COBOL, COBOL 2
IMS - FULL FUNCTION	IBM MAINFRAME	JCL
IMS - FASTPATH	TSO/ISPF	CICS
DB2 FAMILY(DB2,DB2/2, DB2/6000,DB2/400)	AS400	IMS/DB/DC
IMS/DB	TANDEM	TELON
DL/1	UNISYS MAINFRAME	TAL
IDMS		REXX
DMSII		FOCUS
		PEM HOGAN
		ADS/0
		GAMMA
		RPG
		PL/1
		LINC

**Salary:** \$45,000-\$95,000, depending on experience.

#### 4. Multimedia Software Developer (NOC 9990.4)

**Duties:** Developing and implementing multimedia software for interactive computer-based training (CBT) and promotional software applications.

**Minimum Requirements:**

1. **Education:** Bachelors degree or a 2-year Post-Secondary diploma or certification with a computing element.
2. **Language:** Working proficiency in English or French (written and oral.)
3. **Experience:** Two years experience in elements in producing and incorporating the following elements into CBT and multimedia applications:
  - digital video;
  - 2D and 3D graphics;
  - 2D and 3D animation; and
  - digitized audio.

Applicant's experience in this field must be verified using the following table. The applicant must possess experience working with at least **one product or technology under each heading**.

PRODUCTS	2D ANIMATION SOFTWARE	BOTH	3D ANIMATION	DIGITIZING HARDWARE
DIRECTOR SUITE	ILLUSTRATOR ANIMATOR PHOTOSHOP	DIRECTOR SUITE	NEW TEK'S LIGHTWARE 3D	DPS PERCEPTION VIDEO
	OBJECT DANCER M TROPOLIS	ALIAS	AUTODESK'S 3D STUDIO 4	VIDEO TOASTER
TOOLBOOK	CBT EXPRESS	STRATUS SUITE	MICROSOFT SOFTIMAGE	MEDIA 100
STRATA SUITE		ANIMATION MASTER		
OBJECT DANCER	AFTER EFFECTS		STUDIO MAX	
CBT EXPRESS	PREMIER			
JAMBA				
ACROBAT				
LIGHTWAVE				
STUDIO MAX				
SOFTIMAGE				
INTENSE 3D				
DPS PERCEPTION VIDEO				
VIDEO TOASTER				
ANIMATION MASTER				
AFTER EFFECTS				
PREMIER				
MEDIA 100				
MCXPRESS				

**Salary:** \$35,000 - \$80,000.

## 5. Software Developer — Services (NOC 9990.5)

**Duties:** Responsible for coding, testing, analysis, design, definition, development and implementation of applications systems.

### Minimum Requirements:

1. **Education:** Bachelors degree or a 2-year Post-Secondary diploma or certification with a computing element.
2. **Language:** Working proficiency in English or French (written and oral.)
3. **Experience:** Two years experience designing and implementing software.

Applicant's experience in this field must be verified using one of the following tables. The applicant must possess experience working with at least **one product or technology under each heading** in either Table 1 (Systems Integrator) or Table 2 (Application Developer.)

**Table 1 – Systems Integrator**

DATABASE	OPERATING SYSTEMS	LANGUAGES	APPLICATIONS	PLATFORMS/ ENVIRONMENT	PROTOCOLS
SYBASE	UNIX	C	JD EDWARDS	IBM ES-9000	ISDN
ORACLE	HP-UX	C++	SAP	IBM 3090	SNMP
MS ACCESS	AIX	VISUAL AGE/GEN	PEOPLESOFT	IBM S-38	SONET
IMS DB	UNIX	POWERBUILDER	TRITON	IBM S-32	X.25
IDMS	SUN OS	PASCAL		AS/400	X.400
INGRES	WINDOWS 3.X	SMALLTALK	SAS	RS/6000	X.500
UNIFACE	WINDOWS NT	VISUAL BASIC	LINC	UNISYS MACHINES	TCPIP
INFORMIX	WINDOWS 95	COBOL	ORACLE APPS	PC/PS – AT/486/PENTIUM	
VSAM	DOS	RPG	ROSS	DEC/VAX MACHINES	
DMSII	OS/2	INFORMI 4GL	LAWSON	NOVELL NETWARE	
PROGRESS	VMS	NATURAL	GEAC	HP 3000/6000/9000	
MS SQL SERVER	OS/4000	JAVA	DBS	DEC ALPHA	
UNIFY	DOS/VSE	CLIPPER	BAAN	SUN SOLARIS	
SQL BASE	CMS	DELPHI	GREAT PLAINS	DATA GENERAL (DG)	
DB2 FAMILY (DB2, DB2/2, DB2/6000, DB2/400)	MVS	PL/1		MACINTOSH	
				SEQUENT	
				TANDEM	

**Table 2 – Application Developer**

DATABASES	OPERATING SYSTEMS	LANGUAGES	APPLICATIONS	PLATFORMS/ ENVIRONMENT	METHODOLOGIES/ ARCHITECTURES
DB2 FAMILY (DB2, DB2/2,	UNIX	C	JD EDWARDS	IBM ES-9000	BOOCH

DB2/400, DB2./6000)					
SYBASE	HP-UX	C++	SAP	IBM 3090	RUMBAUGH
ORACLE	AIX	VISUAL AGE/GEN	PEOPLESOFT	IBM S-38	YOURDON
MS ACCESS	UNIX	POWERBUILDER	TRITON	IBM S-32	WATERFALL
IMS DB	WINDOWS FAMILY	PASCAL	SAS	AS/400	PRODUCTIVITY PLUS
IDMS	SUN OS	VISUAL BASIC	LINC	RS/6000	METHOD ONE
INGRES	OS/2	SMALL TALK	ORACLE APPS	UNISYS MACHINES	SDM
UNIFACE	VMS	COBOL	ROSS	PC/PS – AT/486/PENTIUM	SPECTRUM
INFORMIX	OS/4000	RPG	LAWSON	DEC/VAX MACHINES	GANE & SARSEN
VSAM	DOS/VSE	INFOMI 4GL	GEAC	NOVELL NETWARE	SSAD
DMSII	CMS	NATURAL	DBS	HP 3000/6000/9000	CLIENT SERVER
PROGRESS	MVS	JAVA	BAAN	DEC ALPHA	OOP
MS SQL SERVER		CLIPPER	GREAT PLAINS	SUN SOLARIS	
UNIFY		DELPHI		DATA GENERAL (dG)	
SQL BASE		PL/1		MACINTOSH	
				SEQUENT	
				TANDEM	

**Salary:** \$40,000 or more, depending on experience.

## 6. Software Products Developer (NOC 9990.6)

**Duties:** Designing and implementing software for end users.

### Minimum Requirements:

1. **Education:** Bachelors degree or a 2-year Post-Secondary diploma or certification with a computing element.
2. **Language:** Working proficiency in English or French (written and oral.)
3. **Experience:** Two years experience with client/server applications.

Applicant's experience in this field must be verified using the following table. The applicant must possess experience working with at least **one product or technology under each heading**.

OPERATING SYSTEMS / PLATFORMS	LANGUAGES	RELATIONAL DATABASE
UNIX	C	WATCOM
DOS	C++	SYBASE
WINDOWS FAMILY	PASCAL	ORACLE
WINDOWS NT	SMALLTALK	MS ACCESS
	JAVA SCRIPT	IMS DB
OS/2	VISUAL BASIC	IDMS
AS/400	POWERBUILDER	INGRES
MACINTOSH	MOTIF	UNIFACE
SUN SOLARIS	DELPHI	INFORMIX
HP-UX	TCL	VSAM
MVS	RPG	DMSII
TANDEM	COBOL	PROGRESS
	JCL	MS SQL SERVER
	CICS	UNIFY
	PL1	SQL BASE
		DB2 FAMILY (DB2, DBS/2, DB2/6000, DB2/400)
		ADABAS
		FOXPRO ONYX

**Salary:** \$45,000 - \$95,000, depending on experience.

## 7. Telecommunications Software Designer (NOC 9990.7)

### Duties:

Designing and implementing real-time telecommunications software.

### Minimum Requirements:

1. **Education:** Bachelors degree or a 2-year Post-Secondary diploma or certification with a computing element.
2. **Language:** Working proficiency in English or French (written and oral.)
3. **Experience:** Two years experience designing and implementing real-time software, in a high- or low-level language, in the field of voice and data communications or telecommunications.

Applicant's experience in this field must be verified using the following table. The applicant must possess experience working with at least **one product or technology under each heading.**

PRODUCT KNOWLEDGE	PROTOCOLS	OPERATING SYSTEMS	LANGUAGE AND TECHNOLOGY
PBX	ISDN	UNIX	C
CENTREX	SNMP	VXWORKS	C++
CENTRAL OFFICE	SONET	PSOS	PASCAL
DIGITAL SWITCHING	X.25	DOS	SMALLTALK
DATA PACKETS	X.400	WIN95	JAVA
PROTOCOL STACKS	DCPIP	WINDOWS 3.X	VISUAL BASIC
OSI	ATM	OS/2	DEVICE DRIVERS
CLIENT SERVER	TCP/IP	SOLARIS	FIRMWARE
NETWORK MANAGEMENT	CDMA	HP-UX	DIGITAL SIGNAL PROCESSING
CELLULAR PCS	TDMA	WINDOWS NT	EMBEDDED SYSTEMS
CTI	GSM		POWERBUILDER
	X.500		

**Salary:** \$45,000 - \$95,000 depending on experience.

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