Die Design Change Management System for Similar Part

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ABSTRACT

The design change management is a critical process during product development, and an efficient and proper design change management system is promising and useful in shortening the development time and lowering the cost. This research is mainly based on the parametrical modeling of feature, and we will link the knowledge database has been built by our laboratory to construct the die design change management system for similar part. The system is constructed in the platform of Visual Basic 6.0 and integrated with SolidWorks 2003 and its API for the engineering drawing output of the part, also with Microsoft Access as database to store the part information. There are two modules. One is the mould product design change system, the other is the die components design change system. The former controls the design change of the part to be made, the latter controls the design change of the die component.

Keywords : design change, feature parameter, API

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REFERENCES

1. R. Bidarra, W.F. Bronsvoort, “ Semantic feature modeling ”, -Computer-Aided Design 32, 2000, P201-225. 2. K. Jha, B. Gurumoorthy, “ Automatic propagation of feature -modification across domain ”, Computer-Aided Design 32,2000,P691-706. 3. S.C. Liu, M. Gonzalez, J.G. Chen, “ Developmentof an -automatic part feature extraction and classification system -taking CAD data as input ”, Computer in Industry 29, 1996,P137-150. 4. C.M. Hoffmann, K.J. Kim, “ Toward valid parametric CAD -models ”, Computer-Aided Design 33, 2001, P81-90. 5. Alex Noort and Willem F.Bronsvoort, “ Automatic Adjustment -of Invalid Feature Models ”, in D.C. Anderson and K. Lee, -eds,Proceedings of Solid Modeling 01,Sixth ACM Symposium -on Solid Modeling and Applications', 6-8 June, Ann Arbor, -USA, 2001, P267-277. 6. B.S. Prabhu, S. Biswas, S.S. Pande, “ Intelligent system for -extraction of product data from CADD models ”, Computer in -Industry 44, 2001, P79-95. 7. O.W. Salomons, F. van Slooten, H.J.J. Kals, “ CONCEPTUAL -GRAPHS IN CONSTRAINT BASED RE-DESIGN ”, Solid -modeling 95,Salt Lake City, Utah USA , 1995, ACM. 8. J.R.P. Hanna, R.J. Millar, J.H. Frazer, “ A CAD DATA -STRUCTURE TO FACILITATE CHANGE ”, Computing -Systemin Engineering, Vol 6. No 6. 1995, P511-519. 9. Jean-Claude Lafon, “ Solid Modelling with Constraints and -Parameterised Features ”, IEEE, P102-107. 10.Chang-Xue Feng,Chun-Che Huang,Andrew Kusiak, Pei-Gen Li, -“ Representation of functions and features in detail design ”, -Computer-Aided Design Vol.28, No.12, 1996, P961-971. 11.P.T.J.Andrews, T.M.M. Shahin & S. Sivaloganathan, “ Design -Reuse in a CAD Environment – Four Case Studies ” ,Computer -& Industrial Engineering 37, 1999, P105-109. 12.L.Kunwoo, David C Gossard, “ A hierarchical data structure -for representing assemblies:part1 ”, Computer-Aided Design, -Vol.17, 1985, P20-24. 13.R.Bidarra,Willem F.Bronsvoort, “ Validity Maintenance of -Semantic Feature Models ”,ACM, 1999, P85-96. 14.R.Anderl, R.Mendgen, “ Modeling with constraints theoretical -function and application ”, Computer Aided Design,Vol.28,No.3,1996, P155-168. 15.G. Brunetti, B.Golob, “ A feature-based approach toward an -integrated product model including conceptual design -information ”, Computer-Aided Design 32, 2000, P877-887. 16.L.Timo,M.Martti,M.Risto,N.Jukka,S.Reijo,T.Jukka, “ Feature -Models for Design and Manufacturing ”,IEEE System Sciences, -Proceedings of the Twenty-Third Annual Hawaii International -Conference on , Vol.2, 2-5 Jan. 1990, P445-454. 17.Alexei Elinson, Dana S.Nau, William C. Regli, “ Feature-based -Similarity Assessment of Solid Models ”, Solid Modeling ’97 -Atlanta GA USA ACM 1997, P297-310. 18.陳徹工作室，VISUAL BASIC 資料庫程式設計實務，松崗電腦1999。 19.戴宜傑，沖壓加工與沖模設計，新陸書局，1997，7。 20.賴子雄、楊義雄編譯，沖壓加工便覽，機械技術，1996。 21.黃啟佑，沖壓模具之電腦輔助設計研究，碩士論文，大葉大學，2000。